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**Our Mission:** The University of Scranton is a Catholic and Jesuit university animated by the spiritual vision and the tradition of excellence characteristic of the Society of Jesus and those who share its way of proceeding. The University is a community dedicated to the freedom of inquiry and personal development fundamental to the growth in wisdom and integrity of all who share its life.

**Our Vision:** The University of Scranton will be boldly driven by a shared commitment to excellence. We will provide a superior, transformational learning experience, preparing students who, in the words of Jesuit founder St. Ignatius Loyola, will "set the world on fire."

**Our Institutional Student Learning Outcomes:** Graduates of The University of Scranton will move beyond the possession of the intellectual and practical skills that form the basis of professional competence and inspired by *The Magis* possess the knowledge and ability to address the most significant questions, engaging their colleagues successfully and ethically, and advancing towards positions of leadership in their chosen field of study. Furthermore, our graduates will, through their experience of *cura personalis*, demonstrate that they are persons of character and women and men for and with others, through their devotion to the spiritual and corporal welfare of other human beings and by their special commitment to the pursuit of social justice and the common good of the entire human community.

Upon completion of their program of study, students will be able to:

1. Develop and use the intellectual and practical competencies that are the foundation of personal and professional development and lifelong learning including oral and written communication, scientific and quantitative reasoning, critical analysis and reasoning, and technological competency and information literacy[1
2. Exhibit broad knowledge of the human condition, understanding the world in its physical and natural aspects, as well as the philosophical and theological basis for modern thought, faith and belief.
3. Demonstrate competence in their chosen field of study, using the knowledge and ability to address the most significant questions, and advancing towards positions of leadership.
4. Employ their knowledge and intellect to address situations in a way that demonstrates a devotion to the spiritual and corporal welfare of other human beings and by a special commitment to the pursuit of social justice and the common good of the entire human community.

To see program learning outcomes please visit the assessment webpage at https://www.scranton.edu/academics/provost/institutional-effectiveness/assessment-documents.shtml.

[1] These competency areas are also cornerstones of general education. The University's general education goals are further articulated in the document, *The General Education Program*.

Volume 105, June 2020
The University of Scranton
*Scranton, Pennsylvania* 18510-4699
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The President and officers of The University of Scranton reserve the right to change the information, regulations, requirements and procedures announced in this catalog; to change the requirements for admission, graduation or degrees; to change the arrangement, scheduling, credit, or content of courses; and to change the fees listed in this catalog.

The University reserves the right to refuse to admit or readmit any student at any time should it be deemed necessary in the interest of the student or of the University to do so and to require the withdrawal of any student at any time who fails to give satisfactory evidence of academic ability, earnestness of purpose, or active cooperation in all requirements for acceptable scholarship.

## Notice of Nondiscrimination Policy as to Students

The University is committed to providing an educational, residential, and working environment that is free from harassment and discrimination. Members of the University community, applicants for employment or admissions, guests, and visitors have the right to be free from harassment or discrimination based on race, color, religion, ancestry, gender, sex, pregnancy, sexual orientation, gender identity or expression, age, disability, genetic information, national origin, veteran status, or any other status protected by applicable law.

Students who believe they have been subject to harassment or discrimination based on any of the above class of characteristics, or experience sexual harassment, sexual misconduct or gender discrimination should contact Elizabeth M. Garcia, Title IX Coordinator, (570) 941-6645 elizabeth.garcia2@scranton.edu, Deputy Title IX Coordinators Christine M. Black (570) 941-6645 christine.black@scranton.edu, or Ms. Lauren Rivera, AVP for Student Life and Dean of Students, at (570) 941-7680 lauren.rivera@scranton.edu. The United States Department of Education's Office for Civil Rights (OCR) enforces Title IX. Information regarding OCR may be found at www.ed.gov/about/offices/list/ocr/index.html.

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It is the personal responsibility of each student to acquire an active knowledge of all pertinent regulations set forth in the *Undergraduate Catalog*.

**Within the various schools and colleges the only official interpretations or modifications of academic regulations are those which are made in writing by the dean of the school or college of which the student is a member, or such interpretations or modifications of academic regulations, as are approved by the appropriate dean in writing.**

## The Mission Statement of The University of Scranton

The University of Scranton is a Catholic and Jesuit university animated by the spiritual vision and the tradition of excellence characteristic of the Society of Jesus and those who share its way of proceeding. The University is a community dedicated to the freedom of inquiry and personal development fundamental to the growth in wisdom and integrity of all who share its life.

## The Vision of The University of Scranton

The University of Scranton will be boldly driven by a shared commitment to excellence. We will provide a superior, transformational learning experience, preparing students who, in the words of Jesuit founder St. Ignatius Loyola, will "set the world on fire."

## Characteristics

As a Catholic and Jesuit university, The University of Scranton shares with all the fullness of the Catholic intellectual tradition, the distinctive worldview of the Christian Gospels, and the spirituality of St. Ignatius Loyola. The University educates men and women for others who are committed to the service of faith and promotion of justice. At the same time, the institution invites persons from other religious traditions and diverse backgrounds to share in our work and contribute to our mission.

The University of Scranton is a comprehensive university, offering degree programs at the undergraduate and graduate levels in the traditional disciplines of the liberal arts as well as in pre-professional and professional areas. The University provides educational opportunities and support programs that promote its mission, meet the needs and interests of traditional and non-traditional students, and serve the needs of the local region.

By offering undergraduate students a core curriculum in the Jesuit tradition based on the arts and sciences, the University adheres to its liberal arts tradition. The University communicates to students the importance of gathering, evaluating, disseminating and

applying information using traditional and contemporary methods. Scranton provides learning experiences that reach beyond the fundamental acquisition of knowledge to include understanding interactions and syntheses through discussion, critical thinking and application. This dedication to educational process promotes a respect for knowledge and a lifelong commitment to learning, discernment and ethical decision making.

Scranton is more than a respected institution, but also a caring, nurturing community. Students, faculty and staff foster a spirit of caring – grounded in Jesuit tradition of *cura personalis* – that enables all members of our community to engage fully in our mission, according to their needs and interests. Our institution facilitates the personal growth and transformation of all members of the University community through a spirit of caring. This spirit of caring for the wider community is extended through acts of civic engagement and service. By demonstrating high standards and care for our physical environment, the University enhances its sense of community.

**The University of Scranton is dedicated to being a dynamic institution, developing goals and aspirations by systematically reflecting on opportunities for and challenges to fulfilling our mission. We fulfill our institutional objectives through careful planning and management of resources in order to achieve our aspirations while remaining affordable to our students. The University also engages our community in purposefully monitoring progress toward the accomplishment of our mission and strategic plan.**

# History of the University

The University of Scranton was founded as Saint Thomas College by Bishop William G. O'Hara, the first Bishop of Scranton, who had always hoped to provide an opportunity for higher education in the Lackawanna Valley. In August 1888, with few resources at hand, he blessed a single block of granite as a cornerstone for his new college, which would admit its first students four years later.

The college was staffed by diocesan priests and seminarians until 1896 and then, for one year, by the Xaverian Brothers. From 1897 until 1942 the school, which was renamed The University of Scranton in 1938, was administered for the Diocese by the Christian Brothers. In the late summer of 1942, at the invitation of Bishop William Hafey, 18 Jesuits, led by Rev. Coleman Nevils, S.J., the newly appointed president, arrived on campus to administer the University.

The Jesuits restructured and strengthened Scranton's traditional and pre-professional programs with an emphasis on the liberal arts, which are the foundation for every program at a Jesuit university. This emphasis is intended to give students an appreciation for all disciplines as they develop specific subject knowledge.

The University has flourished under the Jesuits, growing from what was primarily commuter college with fewer than 1,000 students to a broadly regional, comprehensive university with a total enrollment of approximately 5,300 students in undergraduate, graduate and nontraditional programs.

In these early years of the 21st century, the University is building on its historical and educational heritage guided by its "Engaged, Integrated, Global" strategic plan for 2015-2020. This plan guides the University's efforts in ever-improving the education and formation of students in the Catholic, Jesuit educational tradition through learning experiences that are transformative and reflective. Integrated teaching and learning opportunities across disciplines and programs emphasize understanding, discernment and action in a global context.

During the institution's 125th anniversary year, in 2013-2014, the University community celebrated its proud past and promising future with a yearlong series of events and activities.

The University remains committed to enriching the quality and variety of its academic offerings. In addition, it continues to invest in its physical plant, opening a 118,000-square-foot campus center and 386-bed sophomore residence hall in 2008. In fall 2011, Scranton also welcomed two more facilities to the city's skyline: the Loyola Science Center and an apartment and fitness complex on the 900 block of Mulberry Street.

The 200,000-square-foot science center is home to 22 class and seminar rooms, 34 laboratories and a multistory atrium. It is a fitting home to Scranton's rich legacy of science education and serves as a center of collaborative learning for all members of the campus and community.

The apartment and fitness complex, which consists of the Rev. Scott R. Pilarz, S.J., Hall and Montrone Hall, stands directly across the street from the Patrick and Margaret DeNaples Center and provides fitness space, a dining area and apartment-style units to accommodate 400 juniors and seniors.

In September 2015, the new Edward R. Leahy Jr. Hall, which houses the departments of physical therapy, occupational therapy and exercise science and sport, was dedicated.

In July 2018, Scott R. Pilarz, S.J., who served as Scranton's 24th president, began his second tenure at the University. He was inaugurated as president on September 21, 2018.

## The University Seal

The principal colors of the shield are the traditional colors of the University, royal purple and white. On the purple field there is a horizontal silver bar containing, in purple, a star taken from the seal of the Brothers of the Christian Schools and from the seal of Saint Thomas College, predecessor of the University, and two stacks of wheat from the obverse of the coat of arms of the Commonwealth of Pennsylvania.

The upper half of the shield contains, in gold, two wolves grasping a cauldron suspended from a chain; they are taken from the coat of arms of the family of Saint Ignatius Loyola, and they identify the University as a Jesuit institution. Below the silver bar is a golden rising sun, symbolic of Saint Thomas Aquinas, the shining light of the Church and the Patron of the University.

Indicating the Diocese of Scranton and William Penn, founder of the Commonwealth, the black border of the shield reproduces the border of the shield of the Diocese and the silver hemispheres are taken from William Penn's coat of arms.

The crest is a golden cross of the particular style known as Patonce. It symbolizes Christ, the goal and the norm of the University's educational efforts, and it complements the motto, which the University has had since it was entrusted to the care of the Christian Brothers in 1899: *Religio, Mores, Cultura*.

The outer ring surrounding the seal includes the name and founding date of the University and reference to the Commonwealth of Pennsylvania.

## The Faculty

Over 300 faculty and administrators participate in the University's educational enterprise. They hold degrees from 135 different universities in 30 countries on five continents. Cambridge and the University of London in England; Louvain and the Gregorian in Europe; the University of Calcutta in India; Sophia University in Japan; Soochow University in China; Berkeley, Yale, MIT, Notre Dame, Harvard and Georgetown in America – all are represented among the faculty.

By its nature and function, a university faculty constitutes the most cosmopolitan element in a community. Hindu and Muslim, Christian and Jew, ministers and rabbis – scholars and teachers all – are found on the University's faculty.

The Jesuit tradition is carried on at the University not only by Jesuits engaged in teaching or administration, but also by the scores of faculty members who hold at least one degree from a Jesuit college or university.

As indicated in the Mission Statement, excellent teaching and scholarship are regarded as complementary at this institution. In 2016-2017 there were 600 scholarly works, including books and book chapters, articles in prestigious peer-reviewed journals, presentations and proceedings, and other creative works.

Faculty interests are extensive and include research and projects funded by the National Institutes of Health, the U.S. Department of Fish and Wildlife, the U.S. Air Force, the Pennsylvania Department of Conservation and Natural Resources, The Pennsylvania Commission on Crime and Delinquency, the Pennsylvania Department of Education, The American Heart Association, as well as numerous private foundations and corporations.

Many faculty participate in international projects and faculty exchange programs with universities and hospitals around the world, bringing this global perspective into the classroom. Among the countries involved are Taiwan, Kazakhstan, Slovakia, Republic of Georgia, Mexico, China, Kyrgyzstan, Ukraine, Uganda and Mozambique. Funding has been received from the USAID and the Department of State.

The University Directory presents more detailed information about the faculty.

## Student Diversity and Participation

As our faculty come from around the world, so do our students. Forty-four states and 23 foreign countries are represented in the University's student body, which totals more than 5,200. In turn, through the Fulbright and Study Abroad programs, University of Scranton students matriculate at such foreign universities as Oxford, Leuven, Madrid, Tubingen, Mainz, Oslo, Fribourg, Cologne, Salamanca, Lancaster, Berne, Strasbourg, the Sorbonne and University College, Dublin. This interchange of students contributes to the diversity and intellectual life of the University.

Much of the work in this University community is accomplished through student input. Considerable scientific research at Scranton is done by undergraduate students in the laboratories and in the field. With faculty assistance, the University newspaper and yearbook are edited and managed by students, and students publish articles and abstracts in national scholarly journals. Students work in the Public Relations and Admissions offices, computer center, as resident assistants in the dormitories, as research assistants and interns for deans and the registrar. Others serve with departmental chairpersons and faculty on the conferences which recommend to the deans changes in academic programs Students also serve with other members of the University community on the various search committees that recommend candidates for principal administrative posts from

deans to president.

## Volunteer Activity

The Community Outreach Office is committed to advancing the Jesuit tradition of forming men and women for others. The programs sponsored by this office include food and clothing drives, domestic break trips, on-campus activities and local community service. Each element enables the students to express their faith in reflective service while responding to local and national needs.

The University of Scranton's Community Outreach Office has a roster of approximately 2,800 students who perform well over 165,000 service hours each year. Since 1983, a total of 605 Scranton graduates have chosen to spend a year or more in full-time volunteer service immediately after graduation. Of these alumni, 299 have volunteered with the Jesuit Volunteer Corps. Additional information about The Community Outreach Office can be found in the Life on Campus section of this catalog or at www.scranton.edu/volunteers.

## Baccalaureate Source of Ph.D.s

Scranton's achievement is also recognized in 8th edition of the *Franklin and Marshall Report on the Baccalaureate Origins of Doctoral Recipients*. The study ranks four-year, private, master's-degree-granting institutions as the baccalaureate source of Ph.D.'s in all fields. The University ranked No. 15 for all science disciplines, No. 5 for life sciences and No. 2 for chemistry.

## National Recognition

Scranton is counted among America's finest universities, according to a range of national publications.

For 26 consecutive years, ***U.S. News & World Report's "Best Colleges"*** guidebook has ranked the University among the "top 10 master's universities in the North," the survey's largest and most competitive region. In the most recent edition, the University was also recognized among the "Most Innovative Schools" (No. 5) and was ranked for "Best Undergraduate Teaching" (No. 12). In previous editions, the University was recognized for "Service Learning" and among the ***"Best Colleges for Veterans."***

For the past 18 years, **The Princeton Review** has included Scranton among its ***"Best Colleges."*** Outstanding academics are the primary criteria for inclusion in the book, which lists only about 15 percent of America's 2,500 four-year colleges. In a recent edition, Scranton students praised the University's support services available to students saying, "a tutoring center provides free tutoring for any students who may need it, and also provides work study positions for students who qualify to tutor." Students also praised the University's faculty, liberal arts curriculum, premed, occupational therapy and other science programs. In the past five years, **The Princeton Review** has recognized the University among the top 10 colleges for "Best Science Labs" and among the top 20 for: "Best Campus Food"; "Best College Dorms"; "Students Most Engaged in Community Service"; "Students Love These Colleges"; "**Best Run Colleges"**, "Everyone Plays Intramural Sports"; and "Most Religious Students."

Recently, ***U.S. News*** ranked Scranton among colleges on the ***"Great Schools, Great Prices"*** and ***"America's Best Value Colleges"*** lists and ***The Economist*** ranked the University No. 22 in the nation for the impact a Scranton education has on the earnings of its graduates. *Forbes* magazine has ranked Scranton as one of **America's Top Colleges** for value for 11 consecutive years. In 2016, *Washington Monthly* ranked Scranton No. 67 in its **Best Bang for the Buck** listing.

For 15 years, the University's Kania School of Management has been included among ***The Princeton Review's*** **"Best Business Schools**." In its 2019 **Best Graduate Schools** guidebook, ***U.S. News & World Report*** ranked Scranton's part-time MBA program No. 74 in the nation and its graduate program in nursing ranked No. 98.

Scranton is among just 361 colleges in the nation and one of only 24 colleges in Pennsylvania, to be named to the ***Carnegie Classification for Community Engagement*** in 2015. The University is also consistently named to the President's Higher Education Community Service Honor Roll. In recognition of its work as a values-centered institution, the University is one of 100 American schools named to the John Templeton Foundation's Honor Roll of Colleges That Encourage Character Development.

The University ranked as the 25th **"Healthiest"** college in the United States, according to a 2016 listing posted on *Greatist.com*, an online source for health and fitness information. In a July 2011 article titled "The Friendliest Colleges," published by ***The Huffington Post***, Scranton was ranked among the eight most pleasant colleges in the country. The University of Scranton's **dining facilities and residence halls are among the best in the nation**, according to a ranking by ***Business Insider***.

## Fulbrights and Other International Fellowships

The prestigious Fulbright is the U.S. government's premier graduate scholarship for study, research and teaching in another country. For eleven of the past eighteen years, The Chronicle of Higher Education named The University of Scranton among the "top producers" of Fulbright awards for American students. Since 1972, 158 Scranton students have accepted prestigious international grants in the competitions administered by the Institute of International Education (Fulbright) and International Rotary. Of these grants, 125 have been Fulbrights.

Our most recent winner is Thomas G. McGinley, a marketing major of the class of 2019, who won a Fulbright-Lappeeranta University of Technology Graduate Award to Finland. At Lappeeranta he is pursuing a two-year Master of Science degree in Economics and Business Administration focused on international marketing and sustainability. His research examines the extent to which Europe's small- and medium-sized business models promote social and economic sustainability.

Lauren Coggins was the recipient of a 2018-2019 Fulbright English Teaching Assistantship to Mexico. Lauren graduated with a double major in Secondary Education-Spanish and Hispanic Studies, and a concentration in Latin American Studies. She spent the academic year teaching English at a university in Tuxtla Gutiérrez in Chiapas, Mexico.

Albena I. Gesheva, who was awarded a Fulbright Study/Research grant to Germany for the 2017-2018 academic year, spent the year studying the effect of light intensity on echolocation in tropical bats at the University of Ulm, Germany. Albena, who graduated with a double major in Neuroscience and Philosophy, minors in Japanese and Biochemistry, and a concentration in Asian Studies, was a member of both the University Honors Program and the Special Jesuit Liberal Arts Honors Program.

Five University graduates received Fulbrights for the 2016-2017 academic year. Two were awarded English Teaching Assistantships and three were awarded Study/Research grants. Sarah Fitch, was awarded a Fulbright English Teaching Assistantship to Malaysia. Sarah graduated as a Strategic Communication major, with minors in Business and Business Leadership, and a concentration in Peace and Justice Studies. She also was a member of the Business Leadership Honors Program. Sarah spent 2017 teaching English at a middle school in rural Kedah, Malaysia. Our second Fulbright English Teaching Assistant for 2017, Olivia Gillespie, graduated as an English major, with minors in Spanish and theology/religious studies. On her Fulbright to Brazil, Olivia taught English to university students who were studying to become English teachers themselves. Aimee Miller, received a Fulbright Study/Research Scholarship in Public Health to China where she conducted research on Traditional Chinese Medicine at Wuhan University. Aimee received her BS in Neuroscience with a concentration in Asian Studies in 2012 and, following two years in the Jesuit Volunteer Corps, completed her Masters in Health Administration at Scranton. The fourth 2016-2017 Fulbrighter, Ivan Simpson-Kent, graduated with a double major in Neuroscience and Philosophy, a minor in Mathematics, and as a member of both the University Honors Program and the Special Jesuit Liberal Arts Honors Program. Ivan spent the year at the University of Regensburg in Germany studying the longevity/fecundity tradeoff in the ant species Cardiocondyla Obscurior. Finally, Veronica Sinotte, who graduated with a double major in Biology and Philosophy and as a member of both the University Honors Program and the Special Jesuit Liberal Arts Honors Program, took up her Study/Research Fulbright to Denmark at the University of Copenhagen's Center for Social Evolution. Veronica completed a two-year's Masters in Biology in Copenhagen, focusing her research on the neuromechanisms that support disease.

Susan Trussler, Ph.D., of the Economics/Finance department is the University's Fulbright Program Advisor. Additional information is available online at www.scranton.edu/fulbright.

## Awards from Institute of International Education Fulbright Program and International Rotary, 1990-2019.

| | |
|---|---|
| **2019** | |
| Thomas McGinley | Finland |
| **2018** | |
| Lauren Coggins | Mexico |
| **2017** | |
| Albena I. Gesheva | Germany |
| **2016** | |
| Sarah Fitch | Malaysia |
| Olivia Gillespie | Brazil |
| Aimee Martin | China |
| Ivan Simpson-Kent | Germany |
| Veronica Sinotte | Denmark |
| **2015** | |
| Brian Entler | Australia |
| Benjamin Turcea | Mongolia |
| Emmanuel Akpan | Cyprus |
| Olivia Salama | Finland |
| Matthew B. Tibbitts | Malaysia |
| Marc Andris Vallone | Brazil |
| **2013** | |

| | |
|---|---|
| Elena Habersky | Jordan |
| Shannon Haberzettl | Malaysia |
| Rebecca Schmaeling | Spain |
| Joseph Seemiller | Germany |
| Jan Wessel | Hungary |
| **2012** | |
| Ellen Coyne | South Korea |
| Anna DiColli | Spain |
| Kathleen Lavelle | Spain |
| C.J. Libassi | Spain |
| Nicole Linko | Estonia |
| **2011** | |
| Rebecca Bartley | Malaysia |
| Melissa C. Beltz | Germany |
| Kaitlyn L. Doremus | Germany |
| Philip J. Kachmar | Canada |
| Aileen M. Monks | India |
| Gian P. Vergnetti | United Arab Emirates |
| **2010** | |
| Janine Grosso | South Korea |
| Mackenzie Lind | Finland |
| Mary Elise Lynch | Kenya |
| Mary Martin | Indonesia |
| **2009** | |
| Amy Lee | Macau |
| Cynthia David | Cameroon |
| Megan LoBue | Germany |
| **2008** | |
| Andrea Frankenburger | Argentina |
| Jessica LaPorta | South Korea |
| Allison Martyn | France |
| Christopher Molitoris | Morocco |
| **2007** | |
| Rosemary Moran | South Korea |
| Thomas Murtaugh | South Korea |

| | |
|---|---|
| Vincent Solomento | Netherlands |
| **2006** | |
| Amy Martin | South Korea |
| **2005** | |
| George Griffin | Germany |
| Maria Hundersmarck | South Korea |
| **2003** | |
| Jennifer Bradley | South Korea |
| Elliott Gougeon | Germany |
| Nicole Sublette | South Korea |
| **2002** | |
| Joy Oliver | Netherlands |
| Kristy Petty | Argentina |
| (2002 cont.) | |
| Nicole Negowetti (Rotary) | Ireland |
| **2001** | |
| Maria Atzert | South Korea |
| Lisa Biagiotti | Italy |
| Erin Friel | Germany |
| (2001 cont.) | |
| Carol Gleeson | Paraguay |
| Nicole Heron | Finland |
| Clifford McMurray | Germany |
| Sean St. Ledger (Rotary) | Italy |
| **2000** | |
| Lisa Angelella | India |
| Amy Patuto | South Korea |
| **1999** | |
| Alison Glucksnis | Japan |
| Katherine Roth | United Kingdom |
| Christopher Warren | Guatemala |
| **1998** | |
| Kevin Bisignani | Germany |
| Jennifer Cahill | Japan |
| (1997 cont.) | |

| | |
|---|---|
| Matthew Pierlott | South Korea |
| Karen Towers | Mauritius |
| **1996** | |
| Robert Brennan | Israel |
| Michael Pagliarini | France |
| Michael Tracy | New Zealand |
| **1995** | |
| Jason Cascarino | New Zealand |
| Jeffrey Greer | Sri Lanka |
| Renee Kupetz | Germany |
| **1994** | |
| Margaret Mary Hricko | Spain |
| Terrence Kossegi | Pakistan |
| Karis Lawlor | Germany |
| Brian Zarzecki | Namibia |
| **1993** | |
| Timothy Gallagher | New Zealand |
| Susan Kavalow | South Korea |

| | |
|---|---|
| Jennifer Kelly | Uruguay |
| Alan Landis | Colombia |
| Beth LiVolsi | Italy |
| Colleen McInerney | Australia |
| Jennifer Seva | Argentina |
| **1992** | |
| Maureen Cronin | South Korea |
| Alissa Giancarlo | Germany |
| Thomas Kish | Hungary |
| Jennifer Murphy | Denmark |
| Neal Rightley | Germany |
| Salvatore Tirrito | Finland |
| Denise Udvarhely | New Zealand |
| **1991** | |
| Daniel Jurgelewicz | Finland |
| Thomas Spoto | Singapore |
| **1990** | |
| Caroline Parente | Uruguay |

## Truman and Other National Scholarships

Scranton students excel in several national fellowship competitions, compiling a superb record of achievement in many areas in addition to their exceptional record in the Fulbright competition.

In 2017, Matthew Reynolds, Class of 2018, was named a Goldwater Scholar. Matt is an Honors Program biology and biophysics double major who is also completing minors in mathematics and computer science. He will complete a Ph.D. in biophysics at Rockefeller University.

In 2017, Stephen Gadomski, Class of 2015, who pursued a Postbaccalaureate Intramural Research Training Award at the NIH and who will attend the Medical University in South Carolina to pursue an MD degree, accepted an offer into the NIH Oxcam Scholars Program to pursue a PhD degree in England at Oxford or Cambridge.

Cara Anzulewicz, Class of 2018, a third-year neuroscience major with minors in English, Spanish, philosophy, and biochemistry, received the Gilman Scholarship and the Global Korean Scholarship, both of which supported her study at Sogang University in South Korea during Spring 2017.

In 2015, Christopher Kilner, the recipient of a Goldwater Scholarship in 2015, was one of twelve students selected as a George J. Mitchell Scholar. Christopher will study Biodiversity and Conservation at Trinity College Dublin during the 2016-2017 academic year and intends to pursue a J.D./Ph.D. program in Environmental Law and Conservation Biology.

In 2014-2015, Christopher Kilner, a triple major in environmental science; biochemistry, cell and molecular biology; and philosophy and member of the Special Jesuit Liberal Arts Honors program; was one of 260 students selected nationally as a recipient of the Goldwater Scholarship. Robert Gadomski, a 2012 graduate who majored in neuroscience, received a National Health Service Corps Scholarship to support his study of medicine at Philadelphia college of Osteopathic Medicine.

In 2013, Vivienne Meljen received a National Health Service-Corps Scholarship to support her study of medicine at Geisel School of Medicine at Dartmouth.

In 2012-2013, Vivienne Meljen, a biology major, was one of 62 students nationally to be named a Truman Scholar. Vivienne, who also received a Congressional Hispanic Institute Scholarship and a United Health Foundation Internship, will attend medical school at Dartmouth University.

In 2011-2012, Bradley Wierbowski, a biochemistry, cell and molecular biology major and member of the Honors program, was named a Goldwater Scholar, one of 282 scholars recognized nationally. Bradley, who is also completing a second major in English literature, was the only student nationally to receive the Junior Scholarship from Sigma Tau Delta, the International English Honor Society. Bradley is pursuing a Ph.D. in biomedical sciences at Harvard University.

In 2010-2011, Sarah Neitz was one of 60 students in the United States to be named a Truman Scholar. Sarah is pursuing a triple major in Hispanic studies, international studies, and philosophy. Abbe Clark, a biochemistry, cell, and molecular biology major and member of the Honors program, received a Goldwater Scholarship, one of 274 students selected nationally. Abbe is pursuing a Ph.D. in cell biology at Harvard University. Carl Caceres, a philosophy and theology/religious studies double major, and captain of the Scranton Royals tennis team, received one of 29 NCAA Postgraduate Scholarships awarded to male athletes playing Spring sports in NCAA Divisions I, II, and III; Christopher Stallone, a finance major and captain of the Scranton Royals baseball team, was also one of the select group of scholar athletes receiving a 2011 NCAA Postgraduate Scholarships.

In 2009-2010, Maria Gubbiotti became the eighth Scranton student to be named a Goldwater Scholar since 2002. Maria, a biochemistry, cell, and molecular biology major and member of the Honors program, is pursuing an M.D./Ph.D. program.

In 2008-2009, Coral Stredny, a two-year recipient of the Goldwater Scholarship, was named to the All-USA College Academic Third team for outstanding intellectual achievement and leadership. Melissa Wasilewski, a biomathematics and biochemistry, cell, and molecular biology major and member of the Honors program, received a Goldwater Scholarship, one of 278 students nationwide and the second Scranton student to be named a Goldwater Scholar as a sophomore. Melissa is pursuing an M.D./Ph.D. program.

In 2007-2008, Cynthia David, an Elementary Education major, received an Hispanic Scholarship Fund Award. Douglas Jones, an international studies, philosophy, and political science major, received an NSEP Boren Scholarship to support his study in Jordan. Deirdre Strehl, a political science major, received a Gilman Scholarship to help fund a term of study in Morocco.

In 2006-07, Coral Stredny, a biochemistry major, became the sixth Scranton student and the first sophomore to be awarded a Goldwater Scholarship. Two seniors were honored as NCAA Postgraduate Scholars: John Mercuri, a biology and philosophy major, was one of 29 male scholar-athletes recognized for a fall sport; John is using his scholarship for medical school. Taryn Mellody, a physical therapy major, was one of 29 female athletes recognized for a winter sport. Taryn is applying her NCAA scholarship toward graduate work in physical therapy. Cynthia David, named above, received a Gilman Scholarship to support study in Dakar, Senegal. Two alumni, Mark Bell and Nicole Sublette, were awarded National Science Foundation Graduate Research Fellowships.

In 2005-06, Tina Marie George, a biology and philosophy major, was among 20 students nationally selected by USA Today for its All-USA College Academic First Team. Ms. George was also awarded a Jack Kent Cooke Graduate Scholarship, which covers expenses for her M.D. at Harvard and her M.P.H. at Yale. Han Li, a 2005 graduate, was named a National Science Foundation Graduate Research fellow. Vincent Solomeno, junior political science major, became Scranton's seventh Truman Scholar, one of only 75 students selected in the country. Junior chemistry major Kristy Gogick was selected as a 2006 Goldwater Scholar. Daniel Foster, an environmental science and philosophy major, was named a Udall Scholar.

In 2004-05, Tina Marie George, named above, became Scranton's sixth Truman Scholar. She also received a Udall Scholarship. Two students, Timothy Sechler, a chemistry major, and Karen McGuigan, a biochemistry major, were awarded Goldwater Scholarships. Han Li, a biochemistry and biomathematics major, was named to the second team of the 2005 USA Today All-USA Academic Team.

In 2003-04, Han Li, named above, received a Goldwater Scholarship. Sara Shoener, a biomathematics and philosophy major, and Christopher Corey, a biochemistry, biomathematics and biophysics major, were named to the first and third teams, respectively, of the 2004 USA Today All-USA Academic Team. Vanessa Cortes, an elementary education major, was selected as a Hispanic Scholarship Fund/Lilly Endowment Inc. Scholar.

## Alumni Society

The Alumni Society of the University of Scranton exists to engage and foster a lifelong relationship between its alumni and their alma mater. Graduates join over 50,000 fellow alumni in serving as University ambassadors who promote the Jesuit Catholic mission of the University. The Alumni Society hosts regional programs and events throughout the country while encouraging networking, performing community service projects and recognizing student, faculty and alumni accomplishments. We look forward to your involvement with the Alumni Society as you go forth and set the world on fire. To learn more about your Alumni Society, visit www.scranton.edu/alumni. The Student Alumni Association is a student-run organization designed to foster a vital line of communication between students and the Alumni Society of The University of Scranton. Its goal is to enhance the overall student experience and cultivate future leaders by strengthening their lifelong engagement and philanthropy with the University.

The association plans programs and events that offer students the opportunity to network with alumni.

# Undergraduate Admission and Expenses

The University of Scranton is a selective institution, offering a flexible liberal arts education in the Jesuit tradition of *cura personalis* (care for each person and the whole person).

## Admission

In reaching the admissions decision, the Admissions Committee of The University of Scranton considers a number of factors: academic ability, intellectual curiosity, strength of character and motivation, as evidenced by the student's cumulative GPA, class rank, SAT I and/or ACT scores, extracurricular activities, personal essay and letter of recommendation.

### University Information

The Office of Undergraduate Admissions offers prospective students a wide variety of information about The University of Scranton through various publications. ***Prospective students can request materials by contacting:***

**Office of Undergraduate Admissions**
**The Estate, The University of Scranton**
**Scranton, PA 18510**
**Telephone: (570) 941-7540 *or***
**1-888-SCRANTON**
**Fax: (570) 941-5928**
**E-mail: admissions@scranton.edu**
**Web: admissions.scranton.edu**

## Required High School Preparation

Students wishing to enroll in any of the undergraduate programs offered by the University must have completed a total of 16 or more high school academic units covering grades 9-12. The term "unit" refers to a high school course taught four or five hours weekly throughout an academic year of 36 weeks' duration. Unit requirements and preferred distribution of secondary courses are given in the table below.

| **High School Unit** | **College Program Choice** | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | **Arts** | | | **Business, Science, OT, Nursing, Engineering** | | | **Education, Social Science** | |
| | ***Req.*** | ***Pref.*** | | ***Req.*** | ***Pref.*** | | ***Req.*** | ***Pref.*** |
| English | 4 | 4 | | 4 | 4 | | 4 | 4 |
| History and Social Science | 2 | 3 | | 2 | 3 | | 2 | 3 |
| Foreign Language | 2 | 2+ | | 2 | 2+ | | 2 | 2+ |
| College-Preparatory Mathematics | 3 | 4 | | 4 | 4 | | 3 | 4 |
| Science | 1 | 2+ | | 3 | 3+ | | 1 | 2+ |
| Other Acceptable Units | 4 | | | 1 | | | 4 | |
| | | | | | | | | |
| **Total** | **16+** | | | **16+** | | | **16+** | |

Applicants without high school credit in modern languages may be accepted if they present 16 acceptable units. A single year of language in high school will not be counted as a unit to satisfy the requirements for admission.

Mathematics includes elementary, intermediate and advanced algebra; plane and solid geometry; trigonometry; analysis; and any other college-preparatory course. Applicants for science and engineering programs must include trigonometry and must have earned a grade of 85 in each mathematics course. Applicants for the nursing program should include chemistry and biology in their high school programs.

Science includes biology, chemistry, physics and other college-preparatory courses. Engineering applicants are urged to include physics in their high school preparation.

## Submitting an Application

Students should apply during the first semester of their senior year of high school. The early action deadline is November 15. For all applicants, early action offers will be made on December 15. From that time on, all applications will be reviewed on a rolling basis with a one- to two-week turnaround and a preferred final application deadline of March 1.

Students may apply online for free using the Common Application; for more information, visit scranton.edu/apply. Students must also request an official high school transcript from their guidance office and a letter of recommendation from their school counselor.

The SAT (College Entrance Examination Board) or the ACT (American College Testing) exam is accepted. These tests should be taken during the junior year and/or senior year of high school. During Summer Orientation, the University administers its own placement tests. Therefore, applicants are not required to take the SAT II, nor is the writing component of the ACT required.

A select group of students may apply SAT/ACT Optional, as the Admissions Committee recognizes that standardized test scores are not always indicative of a student's academic ability or potential. To apply SAT/ACT Optional, a student must be in the top 30% of the class or have a 3.0 GPA (4.0 scale) if the school does not report rank. Upon the initial review of the student's transcript, SAT and/or ACT scores may be requested.

Students applying to certain programs must submit standardized scores and may not apply SAT/ACT Optional. For a list of these excluded programs, and for more information about applying SAT/ACT Optional, visit scranton.edu/testoptional.

## Confirmation Fee

Accepted students who wish to confirm their place in the freshman class should submit a non-refundable confirmation deposit by May 1 of $300 for residential students or $150 for commuter students.

## Advanced Placement

Applicants who have taken college-level courses in high school may be placed in advanced courses and may be given credits as well. Students who have been accepted for admission and desire to apply for such placement must take the Advanced Placement Examination offered in May by the College Entrance Examination Board, collegeboard.com. Students can have their results sent automatically to the University by providing the school code (2929). For more information on AP credits, visit scranton.edu/APcredit.

Biology, Biomathematics, Neuroscience or Physiology majors, or students who will eventually apply for admission to the Doctor of Physical Therapy program, cannot be granted AP Biology credits. Students pursuing a pre-medical program should be aware that many medical schools do not accept AP credit for required pre-medical courses.

## International Baccalaureate Policy

The University of Scranton recognizes the academic quality of the International Baccalaureate (IB) curriculum. Students who have completed higher-level (HL) IB courses and who demonstrate a substantial level of achievement as represented by their performance on the relevant IB examination(s), with a score of 5 or better, may earn advanced placement credit. For more information on IB credits, visit scranton.edu/IBcredit.

## Examination

Through the CLEP tests, taken before admission, applicants may gain college credit in most academic subjects for work done outside the classroom in jobs, military service, etc., or in non-accredited institutions. For further information, visit collegeboard.com. Students wishing to be considered for CLEP credits should take the CLEP examinations and have the results forwarded to the Office of Undergraduate Admissions.

For more information, please contact the Office of the Registrar and Academic Services at registrar@scranton.edu.

## International Students

The University of Scranton has been educating international students since 1946 and remains committed to that tradition. At present, 36 different countries are represented by undergraduate and graduate students.

The University's Office of Global Education provides international students with advice, support and resources to ensure a smooth transition to a new culture and educational system. Additional information about support programs and services for international students can be found later in this catalog in the section on the Office of Global Education.

The University has a house on campus that serves as a mosque for the use of Muslim students. It is available for daily prayers as well as the Friday prayer.

## Students with Disabilities

The University of Scranton complies with all applicable laws and regulations with respect to the accommodation of handicaps and disabilities as these terms are defined in law. The University will provide reasonable accommodations so students can fully participate in curricular and extracurricular activities. Students who need assistance should make timely contact with the Center for Teaching and Learning Excellence at (570) 941-4038. For more information, please visit scranton.edu/ctle.

## Special Admission Programs

## Gonzaga Program

Our Gonzaga Program, named for St. Aloysius Gonzaga, the patron saint of students, is part of the supportive community at The University of Scranton that shares the more than 450-year-old heritage of Jesuit education. Students in the Gonzaga Program are prepared not just for a career, but for life, as we promote "magis," a culture of excellence. The Gonzaga Program is designed to support students' transition from high school to college. Our Gonzaga Program will strengthen critical thinking, reading, writing and verbal skills that are essential for academic achievement at the collegiate level.

Gonzaga students are part of a cohort group for the required Gonzaga coursework which provides smaller class sizes for personalized attention from professors and a collaborative peer support network. In this setting, students can grow their knowledge and skills while working as part of a community and developing leadership skills. The Gonzaga Program is conducted over the course of the freshman year and provides students with courses in research and study skills, as well as writing support, coordinated instruction, academic advising, tutoring and mentoring. Students who successfully complete the courses, including those required in the Gonzaga Program, will have earned sophomore status.

The Gonzaga Program core of courses consists of EDUC 113 - Reading-Research , First Year Seminars, COMM 100 - (FYOC) Public Speaking, WRTG 105 - College Writing I, and WRTG 106 - (FYW) College Writing II. Members of the Gonzaga Program will be assigned to the same sections for all five of these courses. You will become a member of a community of students with the same goal: to use these courses to improve and sharpen the skills you will need for your college career. The faculty members assigned to these courses also work as a community. Faculty collaborates so that the curriculum emphasizes the connections among the courses and provides the best opportunity to improve verbal and written skills. Students in the Gonzaga Program may be subject to dismissal if they do not successfully complete the core courses with a grade of C or better. For more information, please visit https://scranton.edu/gonzagaprogram or contact the Center for Teaching and Learning Excellence or at (570) 941-4038.

## Additional Admission Opportunities & Circumstances

## Adult Students

The degree-seeking adult student is someone who is:

- Over the age of 24 upon the first day of the entry term, applying for a first or second Bachelor's degree, Associate's degree or a Certificate program.

Adult undergraduate admission at The University of Scranton is based on the applicant's academic record, life experiences and motivation to continue education. The Adult Freshman and Adult Transfer application can be submitted for free online at scranton.edu/apply.

To complete the application file, the candidate must submit the following credentials: official high school records, personal statement, letter of recommendation, and official transcript(s) from all post-secondary institutions. Official transcripts must be submitted whether or not credit was earned. The preferred deadlines for submitting an application are August 1 for fall entry and

December 15 for the spring semester. Special Orientation sessions are held for degree seeking students just prior to the start of the respective term.

Transfer credit is reviewed on an individual basis after the student is accepted. Advanced standing will be granted for previously completed courses from regionally accredited institutions when: they are equivalent or comparable to courses at the University; the student receives a grade of C or better; and the courses meet requirements for the degree program. If the student changes the major at a later date, a new review of transfer credits will be made at that time, and the student will be given a written evaluation clearly indicating how transfer credits apply to the new major. In all cases, for a bachelor's degree, students must earn a minimum of 63 credits at The University of Scranton. It should be noted that most departments require that at least half of the credits in the student's major be taken here at the University.

Additionally, adult undergraduate students may have the opportunity to earn credit for "experiential learning" outside of regionally accredited college or university instruction such as through work, military service or non-accredited institutions. The primary avenue to seeking such credit is through CLEP examinations (collegeboard.com). In addition, an internal "portfolio" process and credit by exam may be available for certain courses; students wishing to have this learning assessed must document relevant experiences, as well as knowledge gained, for evaluation by faculty from the relevant academic departments. Those evaluators may recommend to the student's dean the award of credit if applicable to the student's program of study. A maximum of 30 credits may be awarded for all extra-instructional learning (with the exception of AP) such as CLEP, portfolio evaluation and Scranton credit by exam.

## Certificates for Academic Credit

A certificate program is an educational opportunity to gain professional knowledge or training in a specific field before or after pursuing a degree. The courses a certificate student takes are part of the regular curriculum of the University. Certificate programs are comprised of eight academic credit courses that are recorded permanently on the student's transcript. Some certificates also include guided learning experiences.

In order to earn a certificate, a student must maintain at least a C average in the certificate courses and must successfully complete any other requirements as stipulated for a specific certificate program. Generally, no more than six credits may be transferred into a certificate program. In certain certificate programs, the required courses may be waived on the basis of prior experience.

The Certificate program offered at the University that are Title IV eligible include:

Health Administration Certificate

Certificate programs offered at the University that are not Title IV eligible include:

Personnel Management Certificate

Human Resources Studies Certificate

Students enrolled in a 24-credit certificate program, taking at least six credits per semester, may be eligible for financial aid. The Financial Aid Office should be contacted for further details.

Application to a certificate program is made online through the Office of Admissions by visiting scranton.edu/apply.

## Second Baccalaureate Degree

University of Scranton graduates and persons with good scholastic records and a baccalaureate degree from a regionally accredited institution may apply to earn a second baccalaureate degree at The University of Scranton. The adult application for admission can be submitted for free online at scranton.edu/apply.

Candidates for a second baccalaureate degree are expected to complete a minimum of 30 credits at The University of Scranton beyond the completion of the studies for the first degree, of which at least 15 credits must be in the second degree's major. Students must complete all requirements for the second degree not covered by the first degree program for the major and cognate courses. All prerequisites for major and cognate courses must also be completed. Official transcripts from all post-secondary institutions attended are required.

No semester hours from the first baccalaureate degree can be used toward this 30-credit requirement. Grades for courses taken by University of Scranton graduates after completion of the requirements for the first baccalaureate degree will have no effect on the final grade point average of the first degree.

## Self-Improvement

Students who do not plan to work toward a degree or a certificate must file an online application for admission as a self-improvement student. Those who are applying for personal gain must submit an official transcript from all post-secondary institutions attended; if none, please submit the high school transcript including SAT/ACT scores. Students who are applying to fulfill graduate school prerequisites must submit a listing of prerequisite courses required for entry into the intended graduate program, along with official transcripts from all post-secondary institutions attended. The application for admission can be submitted for free online at scranton.edu/apply.

## Visiting Students

An undergraduate student matriculated to another college or university who wishes to take courses at The University of Scranton and transfer the credit back to their home college may do so as a visiting student. A visiting student online application is required, along with written approval from the dean or other authorized administrator of the home college, for all specified courses to be taken. The University of Scranton does not guarantee transferability of its courses. Reader courses are not available for visiting students. Visiting students taking more than one course in any semester are required to attend orientation. The visiting student application for admission can be submitted for free online at scranton.edu/apply.

## High School Scholars/Dual Enrollment Program

Offered to rising juniors and seniors who have demonstrated strong achievement in high school, The University of Scranton High School Scholars Program gives students the chance to earn college credits at a greatly reduced rate. Courses are the same as those offered to college students, giving high school students an opportunity to experience college-level work before entering college.

Dual enrollment agreements exist with several local school districts. These agreements allow for students to use their college credits toward their high school graduation requirements. In addition, some districts have secured state grant funds to help offset the expenses of enrollment. Interested students should check with their guidance offices to see if their school is a participating dual enrollment school.

### *Eligibility and Requirements*

- High school students must have completed their sophomore or junior year with a minimum of a 3.3 (B+) grade point average.
- Students may take one course each term – fall, spring, summer I, summer II – until graduating from high school.
- Students may enroll for a maximum of 3 credits per session. Individual exceptions may be made if GPA/SAT scores substantiate the request.
- Registrations will be processed on a space-available basis. Students will be responsible for tuition and applicable fees.
- Successfully completed courses (C or better) are awarded University of Scranton credits, typically 3 credits per course, and are accepted towards a degree at The University of Scranton.
- Courses may be taken for credit at a special tuition rate of $175 per credit.

High school students must submit the online application, an official high school transcript, a course-specific recommendation from the high school guidance counselor and PSAT/SAT scores may be requested in some cases. For more information, please visit scranton.edu/hsscholars.

Students enrolled in the High School Scholars Program for the fall or spring terms must update their High School Scholars applications with a new transcript, SAT scores (if available) and registration form in order to be able to register for High School Scholars classes in the summer term.

## Business High School Scholars Program

The University of Scranton Business High School Scholars Program offers local students the opportunity to take business courses on campus at a greatly reduced rate. Current sophomore and junior students who have demonstrated high academic achievement may apply to start the program in the summer term.

### *Eligibility and Requirements*

- Applicants should be local high school students who will be completing their sophomore or junior year with a minimum of a 3.3 (B+) grade point average.
- Students who have previously participated in the High School Scholars Program can contact Admissions directly for enrollment information.
- Students may take one course each term – Fall, Spring, Summer I, Summer II – until they graduate from high school.
- Students may enroll for a maximum of 3 credits per session. Individual exceptions may be made if GPA/SAT scores substantiate the request.
- Registrations will be processed on a space available basis. Students will be responsible for tuition and applicable fees.
- Successfully completed courses (C or better) are given University of Scranton credit, typically 3 credits per course, and are accepted toward a degree at The University of Scranton.
- Courses may be taken for credit at a special tuition rate of $175 per credit (more than 80% off the regular tuition rate). Financial assistance with tuition and books may be available for eligible students.

High school students must submit the online application, an official high school transcript, a course-specific recommendation from the high school guidance counselor and PSAT/SAT scores may be requested in some cases. For more information, please visit scranton.edu/bhsscholars.

## Transfer Student Admission

Any student under the age of 24 who has attended a post-secondary institution after high school graduation and wishes to transfer to The University of Scranton must submit a transfer student Common Application for free online at scranton.edu/apply. To complete the application, the candidate must submit the following credentials: official high school record, SAT/ACT scores (may be requested), personal statement, letter of recommendation, official transcript(s) from all post-secondary institutions attended and Dean of Students Certification and Recommendation Form from all post-secondary institutions attended after high school graduation. Official transcripts must be submitted whether or not credit was earned. The preferred application deadlines are August 1 for fall entry and December 15 for the spring semester.

Transfer credit is reviewed on an individual basis after the student is accepted. Advanced standing will be granted for previously completed courses from accredited institutions when: they are equivalent or comparable in nature, content, method of instruction, level and rigor to courses at the University; the student receives a grade of C or better; and the courses meet requirements for the degree program. A grade of Pass or Satisfactory is not acceptable for transfer credit. For courses in a sequence, students need to demonstrate sufficient preparation to succeed in the next course in the sequence. If the student changes the major at a later date, a new review of transfer credits will be made at that time upon a student's request, and the student will be given a written evaluation clearly indicating how transfer credits apply to the new major.

The University shall determine if it will accept credits granted by an institution outside the United States on a case by case basis. Institutions outside of the United States must be recognized as degree granting institutions by their home country. A standardized international credit evaluation, such as WES, is required in order to determine transfer credit equivalency(ies).

Students who have taken Advanced Placement (scranton.edu/APcredit), International Baccalaureate (scranton.edu/IBcredit) or CLEP (clep@info.collegeboard.org) credit exams may be given credit as well. Official test score reports must be submitted to the Office of Admissions for review.

In all cases, for a bachelor's degree, students must earn a minimum of 63 credits at The University of Scranton. It should be noted that most departments require that at least half of the credits in the student's major be taken here at the University. Transfer credit is recorded as a grade of "TC" on the student's transcript. Credits earned through transfer or credit exams become part of the student's permanent academic record.

Special Orientation sessions are held for transfer students just prior to the start of the respective term. All official documentation should be sent to: Office of Transfer Admissions, The Estate, The University of Scranton, 800 Linden Street, Scranton, PA 18510.

For more information, please contact Deborah A. Lipinski, Senior Assistant Director of Transfer & Adult Admissions, at (570) 941-4839 or transfer@scranton.edu.

## Validation of Business Transfer Courses

Students may validate courses taken at a non-AACSB institution by successfully completing one or more advanced courses in the subject for which the course in transfer is a foundation course. Approval is granted by the Dean of the Kania School of Management. This applies only to lower-division transfer courses which the University offers at the upper-division level.

## Tuition Payments

Each semester an invoice for your registered coursework, room and board if applicable, will be made available on your my.scranton portal. An ebill notice will be sent to your Scranton email account. The semester charges are payable by the due date listed on the invoice. You can return the Remittance Form available with your ebill with a check, pay via e-check or credit card (fee attached) using the ebill, enroll in a monthly payment plan, or complete a loan application through Financial Aid to pay the balance.

Without exception, lab fees must be paid for all courses with a lab requirement. Also, the University Fee must be paid by all College of Arts and Sciences, Panuska College of Professional Studies and Kania School of Management students registered for courses.

No student shall be permitted to receive any degree, certificate or transcript of record until the student's financial account with the University has been settled. For students who graduate or withdraw from the University, any financial account not settled with the University Bursar's Office will be forwarded to an external collection agency. At the time an account is placed with an agency, collection costs become the responsibility of the student, and they will be added to the balance due to the University.

## Monthly Payments

The University accepts monthly payment through participation with Nelnet Business Solutions. For information regarding our monthly payment plan, please go to scranton.edu/financialaid.

## Tuition Insurance

The University, through A.W.G. Dewar, Inc., provides the Tuition Refund Plan (TRP). The plan helps protect your educational investment. When combined with the University's published refund policy, reimbursement totaling 100% of tuition and room and board charges billed by the University will be made if you must withdraw from a term because of a personal illness or accident. In case of withdrawal due to a mental or nervous disorder, 60% of the above charges are covered. Application information is available from the Bursar's Office or you may call A.W.G. Dewar, Inc. at (617) 774-1555.

## Alumni Discount

Individuals who have previously earned a baccalaureate degree from The University of Scranton and are taking undergraduate, credit-bearing courses are eligible for 50% tuition reduction.

## Family Tuition Reduction

The family tuition-reduction policy applies whenever two or more dependent children from the same family are in attendance during the same semester at the University as full-time undergraduate students. The reduction also applies whenever at least one dependent child in a family is in attendance at the University as a full-time undergraduate student and a parent is enrolled full-time as an undergraduate student. The tuition deduction is equivalent to each student's semester tuition multiplied by 10%. The Family Tuition Reduction form must be completed each year to receive the reduction for that year. Forms and additional information may be obtained from the Bursar's Office (Web site: scranton.edu/bursar).

## Tuition Policy for VA Education Benefit Recipients

Students eligible for entitlement to educational assistance through the VA under Chapter 31, Vocational Rehabilitation and Employment or Chapter 33, Post- 9/11 GI Bill® benefits must submit a Certificate of Eligibility or Statement of Benefits from the VA to the University. Students are also required to complete the University form, Request for Certification, each semester which permits us to certify eligibility to the VA for that semester timeframe. Upon meeting these requirements and calculation of VA expected benefits that will cover the student balance, the University will not impose any penalty which includes the assessment of late fees, denial of access to classes or require a covered individual to borrow additional funds due to the delayed

disbursement of funding from the VA under chapter 31 or 33.

## Tuition Policy for Senior Citizens

Persons 60 years of age or older may audit undergraduate courses at the University at no tuition charge on a "space-available" basis. Fees and other costs of courses (e.g., textbooks) are assessed at the normal rate. The student must complete the senior-citizen-tuition waiver form and the registration process.

Persons 60 years of age or older may take undergraduate courses for credit at 50 percent tuition. These reductions are applicable only after the person has applied for and received any form of financial assistance normally available (e.g., state and federal assistance, employer reimbursement). The student must complete the senior-citizen-tuition waiver form and the registration process.

Senior-citizen students must complete the full application process, including submission of all official transcripts.

## Tuition Refunds

The tuition refund calendar applies to all University students. The amount of tuition refund is dependent on the formal date of withdrawal. Both tuition and fees are refundable during the 100% refund period of a semester. During the partial refund periods, the refund percentage applies only to tuition; laboratory and special service fees are not refundable.

A student billed flat-rate tuition who drops a course(s) within a semester, yet remains enrolled for the semester, may be entitled to a refund following the calendar under two scenarios. If the total course load remaining is below the flat-rate tuition minimum credit load (12 credits), then an applicable refund will calculate. Or, if prior to dropping the course(s), the student's course load was greater than the flat-tuition maximum credit load (18 credits), an applicable refund will calculate.

Recipients of Federal Title IV Financial Aid who completely withdraw are governed by the Federal Refund Policy detailed in the Financial Aid section of the catalog.

## Health Insurance

All students must be covered by adequate health insurance. Unexpected serious illness or injury can have a great impact on college financial plans. University fees cover visits to Student Health Services with care by registered nurses, nurse practitioners or physicians. However, care by community providers such as laboratory, X-ray, private physician or specialists, hospital emergency department visits, or hospital admission are subject to insurance coverage or private payment. Students may contact Student Health Services for further information.

## Student Identification Cards

The University of Scranton provides students with a "one card" photo-identification system – the Royal Card. Every student attending the University must have a current Royal Card. This card must be presented upon demand for student services in the fitness center, athletic facilities and library. The Royal card is used for management of meal plans in the dining facilities, access to residence halls and secured administrative buildings, photocopying and printing in the library, and as a debit card account for many Point of Sale, vending and laundry locations on campus. For more information about the Royal Card, contact the Technology Support Center at (570) 941-4357 or scranton.edu/royalcard.

# Tuition and Fees 2020-2021

## Tuition

The University of Scranton charges all full-time undergraduate students a comprehensive or flat tuition charge for the fall and spring semesters. Not included in the charge are expenses for books and supplies, special service fees and laboratory fees. Room and board charges are assessed based on the housing option and meal plan selected.

| | |
|---|---|
| **Full-Time Student Tuition, per year** | $46,684 |

*Includes 12 to 18 credits taken in each of the fall or spring semesters only. Credits taken during intersession or summer sessions or those taken above 18 credits in one semester are charged at the rate of $1,197 per credit in the fall, intersession and spring and $597 in the summer.*

**Tuition for Special Programs**: Special Jesuit Liberal Arts, KSOM Honors, and Magis Honors program students will be allowed to take up to 21 credits per semester (fall and spring) at no additional charge above the flat-tuition rate. During their junior and senior years, students in the Honors Program and Business Leadership Program will be allowed to take up to 21 credits per semester at no additional charge above the flat-tuition rate.

## Room Charges

Room charges are assessed per semester. Room fees cover intersession housing but an additional fee is assessed for any meal plan. No fees include vacation periods.

| | |
|---|---|
| Class AA, per semester | $5,307 (single), $4,826 (double) |
| ***Single:*** *Romero Plaza, Madison Square, Pilarz, Montrone;* ***Double:*** *Romero Plaza* | |
| Class A, per semester | $4,826 |
| *Condron, Katharine Drexel, Gavigan, Redington, Elizabeth Ann Seton* | |
| Class B, per semester | $4,564 |
| *Blair, Casey, Denis Edward, Driscoll, Fayette, Fitch, Gonzaga, Giblin-Kelly, Gannon, Hafey, Lavis, Liva, Lynett, Martin, MacKilop, McCourt, McGowan, Nevils, Tioga* | |

## Other Room Charges

| | |
|---|---|
| Room Damage Deposit | $200 |

## Summer Session Housing

| | |
|---|---|
| Summer room charges (session I and session II) | $741 |
| "G" Session | $1,019 |

## Residency Requirements

**The University requires all first- and second-year undergraduate students to live in campus housing.** Exceptions to this policy are limited to students who reside with a parent, legal guardian or spouse; are 21 years of age or older; or present other documented extenuating circumstances. The Admissions Office will determine a student's residency status upon admission to the University.

## Board

| | |
|---|---|
| Board charges are assessed per semester. No fees include vacation periods. | |
| **Standard Meal Plans** | |
| Unlimited meals per week, per session | $3,259 |
| *$776 in Intersession. All freshmen living in University housing must participate in the unlimited meal plan during the entire freshman year. Additional information about meal plans can be found in the Student Life section of the catalog or by contacting Dining Services at (570) 941-7456.* | |
| 14 meals per week, per session | $2,753 |
| *$619 Intersession* | |
| 10 meals per week, per session | $2,256 |
| *$454 in Intersession* | |
| **Flex Plus Meal Plans** | |
| *The new meal options - or "plus" plans - offer the same number of meals, but the choice to add an additional $100 of flex dollars to each plan.* | |
| Unlimited meals per week, per session | $3,359 |
| 14 meals per week, per session | $2,853 |
| 10 meals per week, per session | $2,356 |
| **Ordinary Fees** | |
| University Fee, per semester | $200 |
| Continuation Fee (in lieu of University Fee for students not in residence), per semester | $5 |
| Medical Leave Fee, per semester | $15 |
| Reader (Individual Study) Fee, per credit, in addition to regular tuition | $60 |
| Breakage Fee | Actual |
| Graduating students only: Commencement/Yearbook Fee | $250 |
| Freshman Orientation Fee | $275 |
| Transfer Orientation Fee | $200 |

| Clinical, Laboratory and Other Course Fees | |
|---|---|
| ***Sciences*** | |
| Biology, per course, per semester | $100 |
| Chemistry, per lab hour, per semester | $40 |
| Physics, per course, per semester | $75 |
| Psychology, per course, per semester | $50 |
| Medical Tech Intern, per semester | $125 |
| ***English*** | |
| Film Screen Fee, per course, per semester | $40 |
| Writing Fee, per course, per semester (excluding WRTG 105, WRTG 106, WRTG 107) | $25 |
| ***Communication*** | |
| Radio Lab Fee, per course, per semester | $50 |
| TV Lab Fee, per course, per semester | $50 |
| ***History*** | |
| Film Screen Fee, HIST 212 & HIST 218, per course, per semester | $30 |
| ***Political Science*** | |
| European Union Simulation Fee, PS 331, per course, per semester | $100 |
| ***Foreign Languages*** | |
| Language Lab Fee, per course, per semester | $50 |
| ***Nursing*** | |
| Clinical Lab, per hour, per semester, 200-, 300-and 400-level courses | $50 |
| Clinical Lab, per clinical course RN, NURS 471 and NURS 474 | $110 |
| ***Occupational Therapy*** | |
| Clinical Lab, per hour, per semester | $40 |

| | |
|---|---|
| ***Art and Music*** | |
| Music Fee (MUS 111, MUS 112, MUS 219) | $30 |
| All Art Courses Lab Fee, per course, per semester | $70 |
| All Art History Courses, per course, per semester | $30 |

## Special Service Fees

| | |
|---|---|
| Late Tuition Payment Fee | $100 |
| Late Graduate Application Fee | $100 |
| Return Check Fee | $40 |
| Late Registration Fee | $20 |
| Requested change of schedule after classes begin | $15 |
| Change of Major Fee | $15 |
| Off-Campus Course Permission Fee | $75 |
| Certified transcript (per electronic copy) | $9 |
| Certified transcript (per paper copy) | $15 |

## Tuition Refund Schedule

| ***Fall/Spring Semester*** | ***Credit*** |
|---|---|
| Before the first day of classes; to and including 10 calendar days | 100% |
| To and including 17 calendar days | 75% |
| To and including 24 calendar days | 50% |
| To and including 31 calendar days | 25% |
| Beyond 31 calendar days | No refund |
| ***Intersession/Summer Sessions*** | ***Credit*** |
| Before the first day of classes; to and including 2 calendar days | 100% |
| To and including 4 calendar days | 50% |

| | |
|---|---|
| Beyond 4 calendar days of the session | No refund |

## Adult Undergraduate Tuition and Fees 2020-2021

| | |
|---|---|
| Full-Time Tuition (12 or more credits) and All Intersession Courses, per credit | $1,197 |
| Part-Time Tuition (fewer than 12 credits), per credit | $913 |
| University Fee for Full-Time Students, per semester | $200 |
| University Fee for Part-Time Students, per semester | $25 |
| Schedule Change Fee, per change form | $15 |
| Recreational Complex Use Fee (optional for part-time students), per semester | $70 |
| Prior-Learning-Portfolio Review Fee, per credit | $30 |
| Credit by Exam, per credit | $75 |
| Prerequisite Challenge Exam, per exam | $15 |
| Graduation Fee | $250 |

# Scholarships and Financial Aid

The University will help as many qualified students as possible to attain a college education. For this purpose the University maintains a Financial Aid Office, and all inquiries concerning such assistance should be made to: Financial Aid Office, 401 St. Thomas Hall, telephone: (570) 941-7701, fax: (570) 941-4370. Assistance is also available via the web at scranton.edu/financialaid or by e-mail to finaid@scranton.edu. For a more complete description of aid programs and policies, review the **Comprehensive Guide to Financial Aid Programs** at scranton.edu/financialaid, click on Publications.

## Procedures for Applying for Scholarships and Financial Aid

Traditional undergraduate students are considered for scholarship eligibility at the time of their acceptance into The University of Scranton. No separate application is required.

Students who want to be considered for need-based assistance must complete the Free Application for Federal Student Aid (FAFSA). Priority filing date for incoming students is February 1; for returning students, April 15. FAFSA forms are available online at studentaid.gov. Financial Aid is awarded for one year only and renewal is not automatic. All forms of need-based financial aid must be reapplied for annually.

In order to be eligible for financial aid, students are required to maintain satisfactory academic progress. Standards have been established for federal and University financial aid that measure a student's progress toward a declared educational objective. These guidelines include a maximum time frame for completing a degree, a minimum percentage of credits completed each academic year and a minimum cumulative grade point average. A brief explanation is provided below. For a more complete description of aid programs and policies, please review the **Comprehensive Guide to Financial Aid *Programs*** at scranton.edu/financialaid click on Publications.

## Financial Aid for Transfer Students

New transfer students must follow the same application procedures as all other financial aid applicants. Transfer students are also responsible for providing academic transcripts from previous college(s) to the appropriate University Admissions Office for transfer credit evaluation. Academic transcripts will also be required for measuring the satisfactory academic progress of PA State Grant recipients as well as determining grade level for loan eligibility

Students who withdraw or transfer from the University and subsequently are readmitted forfeit a previously awarded merit scholarship. Students will be reviewed for University need based funds provided that a current FAFSA is on file and are maintaining Satisfactory Academic Progress.

## Financial Aid for Non-Traditional Undergraduate Students

Non-Traditional Undergraduate students are eligible to apply for several forms of federal and state financial aid. Eligibility for all grants, loans and institutional aid requires the student to submit the Free Application for Federal Student Aid (FAFSA).

Priority filing date deadline for incoming students is May 1; for returning students April 15. FAFSA Forms are available online at studentaid.gov. Financial Aid is awarded for one year only and renewal is not automatic. All forms of need-based aid must be reapplied for annually.

In order to be eligible for financial aid, students are required to maintain satisfactory academic progress. Standards have been established for federal and University financial aid that measure a student's progress toward a declared educational objective. These guidelines include a maximum time frame for completing a degree, a minimum percentage of credits completed each academic year and a minimum cumulative grade point average. A brief explanation is provided below. For a more complete description of aid programs and policies, please review the **Comprehensive Guide to Financial Aid Programs** at scranton.edu/financialaid, click on Publications.

## Financial Aid Notifications

The Financial Aid Office uses email correspondence to and from the Scranton email accounts and emails listed on the FAFSA. Outstanding documents and notifications of eligibility for need based aid and loans will be sent by email to the Scranton email account. Students are advised to view their outstanding documents and Electronic Award Notification on the University's Self Service system via the my.scranton portal.

## Terms and Conditions

Terms and Conditions General Provisions

In accepting the award package offered, you indicate that you understand and agree to abide by the following terms and conditions:

1. All students must maintain satisfactory academic progress in order to remain eligible for financial aid. The satisfactory progress requirement for students at the University is to maintain PACE (earn 65% of total attempted credits for freshman and sophomore undergraduates; 70% for junior and senior undergraduates, and graduate students). In addition, all students must maintain a minimum cumulative GPA of 2.00. Presidential and Dean's Scholarship recipients are required to maintain a minimum cumulative GPA of 3.25. Loyola Scholarship recipients are required to maintain a minimum cumulative GPA of 3.00. Arrupe and Faber Scholarship recipients are required to maintain a minimum cumulative GPA of 2.50.
2. All forms of need-based financial aid must be reapplied for annually. Renewal of awards will be based on continued eligibility and the timely completion of all required documents.
3. All undergraduate financial aid applicants are required to apply for a Pell Grant. Pennsylvania residents must apply for the state grant. Out-of-state undergraduate residents must also apply for their state's grant, if its use in Pennsylvania is allowed.
4. If a student receives additional aid from outside sources, the financial aid awarded may be subject to adjustments according to the University's Gift Aid Policy. Receipt of outside awards must be reported to the Financial Aid Office.
5. Recipients of full-tuition scholarships, benefits, or discounts are limited up to the cost of tuition.
6. Financial aid recipients who plan to withdraw from the University or who change their enrollment to part-time status must notify the Financial Aid Office.

7. Awards funded by state or federal programs are subject to revision due to mandated changes in federal or state regulations or funding levels.
8. Direct Stafford Loan and PLUS Loan recipients must be enrolled on at least a half-time (6 credits) basis per semester for Undergraduate students and (3 credits) basis per term for Graduate students.
9. Failure to provide all requested documentation will result in the cancellation of the aid awarded.
10. The amount of aid awarded will be divided equally between the fall and spring semesters unless otherwise indicated.
11. Need-based awards are subject to change as a result of verification of financial information.
12. University of Scranton Undergraduate grants and scholarships are limited to a maximum of eight Undergraduate terms (students enrolled in the Master of Occupational Therapy Program are eligible for two additional terms for fall and spring during Graduate year, exclusive of internal transfers). Aid not to exceed Gift Aid Policy.
13. Undergraduate students enrolled in combined Undergraduate/Graduate programs will be reviewed each term to determine if the coursework being taken is applicable towards their undergraduate degree program.
    Students will be sent revised notifications if their eligibility for undergraduate financial aid awards changes. Students enrolled in prerequisite undergraduate courses for admittance into a graduate level program are limited to one annual undergraduate loan for one consecutive 12-month period.
14. University of Scranton grants and scholarships for Undergraduate students will be prorated when attendance falls between half-time and full-time attendance.
15. Recipients of endowed and special awards agree to both acknowledge the donor's generosity and to have their receipt of those funds publicized.

## Federal Aid

Students must meet the following requirements to be considered for any of the federal financial aid programs:

- Must have a high school diploma or GED;
- Must be enrolled as matriculating student in an eligible degree program or an eligible certificate program of at least 24 credits;
- Must be a U.S. citizen or eligible non-citizen;
- Must maintain satisfactory academic progress;
- Must not already hold a bachelor's degree (this requirement does not apply to the Federal Direct Stafford or FWS);
- If required, must be registered with Selective Service;
- Not owe any refund on Federal Aid and not be in default on Federal educational loans;
- Not been convicted of any illegal drug offense that would make you ineligible for Federal aid.

## Federal Pell Grant

Provides federal grants, ranging from $639 to $6,345 per academic year, based on financial need. A FAFSA is required.

## Federal Supplemental Educational Opportunity Grant

A federal campus-based program administered by the University. Amounts may range from $250 to $1,000 per year to students who demonstrate exceptional need. Priority is given to Pell recipients. A FAFSA is required for this program.

## Teacher Education Assistance for College and Higher Education (TEACH) Grant

Program designed for Education majors with concentrations designated by the U.S. Department of Education. Must have achieved a 3.25 high school GPA and maintain a 3.25 for renewal. Must serve as a full-time teacher for at least four academic

years at a high-need school within eight years after completing the course of study; otherwise, obligation will be treated as a Federal Direct Unsubsidized Stafford Loan. The annual award is up to $3,752, with aggregates not to exceed $16,000 for undergraduates.

## Federal Direct Stafford Loan Program

The Direct Stafford Loan allows students to borrow in their own name and requires no credit evaluation. A Free Application for Federal Student Aid (FAFSA) is required for all loan applicants. The U.S. Department of Education is the lender. Stafford loans have a fixed interest rate. The Stafford Loan can be either interest-subsidized (federal government makes in-school and grace period interest payments) or unsubsidized (student makes interest payments during in-school and grace periods or has interest added onto the amount borrowed and repaid with principal after grace period). Eligibility for interest subsidy is based on demonstrated financial need as determined by the federal needs analysis when the FAFSA is filed. Payment of principal is deferred while the student is enrolled. Repayment begins six months after the student has completed his/her program of study or leaves school for more than six months.

Students will be able to borrow a base amount that may be subsidized or unsubsidized, and an additional $2,000 per year that will be unsubsidized. Freshmen may borrow up to $5,500 ($3,500 base amount), sophomores, $6,500 ($4,500 base amount), juniors and seniors, $7,500 ($5,500 base amount). In addition, independent students (and dependent undergraduate students whose parents are unable to obtain a Direct PLUS Loan) can borrow under the Additional Unsubsidized Direct Stafford Loan.

The aggregate maximum for undergraduate study is $31,000 for dependent students and $57,500 for independent students; of these maximums, no more than $23,000 can be subsidized. Also, effective July 1, 2013, first-time borrower's eligibility for the Direct Subsidized Loans will be limited to a period not to exceed 150 percent of the length of the borrower's educational program.

Students will be required to complete an electronic Federal Direct Stafford Loan Master Promissory Note (MPN) and Entrance Counseling. Further instructions and information are available online at scranton.edu/financialaid click on Loans & Financing Options.

## Federal Direct PLUS Loans

The Direct PLUS Loan is available to credit-worthy parents of dependent undergraduate students. PLUS Loans have a fixed interest rate. Parents may borrow the difference between the student's total cost of education and all other aid the student is receiving. PLUS Loans should be applied for the academic year. The U.S. Department of Education is the lender.

For parent borrowers, interest will accrue after the first disbursement and repayment of interest and principal begins 60 days after the second disbursement. Parents can apply for a deferment to delay making payments. While you are in deferment, you will receive interest statements. Paying the interest as it accrues will save you money over the repayment term of the loan.

Parents should apply for the Direct PLUS Loan beginning in June for the academic year. The Direct PLUS Loan process will be completed online. Parents will be required to complete a PLUS Loan application with the requested loan amount and successfully complete the credit check. Credit checks are good for 180 days. Once approved, an electronic Federal Direct PLUS Loan Master Promissory Note (PLUS MPN) will need to be completed. Further instructions and more information are available on The University of Scranton Financial Aid website online at scranton.edu/financialaid click on Loans & Financing Options.

## Federal Work-Study Programs

A federal campus-based program that provides employment during the academic year and in the summer for students demonstrating financial need. The majority of the jobs are on-campus positions in various departments and administrative offices. Some jobs, both on and off campus, involve community service. Students seeking campus employment must file a FAFSA. Indicate that you are interested in the work-study program and complete an online application.

# Pennsylvania State Financial Aid Programs

## PA State Grant

Designated by the General Assembly to administer the Pennsylvania State Grant Program. Students may be awarded from $500 to $4,131 per year. A FAFSA must be filed by May 1.

## Partnerships for Access to Higher Education (PATH) Grant Program

Students are nominated by a participating PATH organization. They must be State Grant recipients the year for which PATH aid is requested, demonstrate financial need and be enrolled in a Pennsylvania postsecondary institution.

## Ready to Succeed Scholarship Program (RTSS)

The program is administered by PHEAA in close cooperation with the Pennsylvania Department of Education. The student must meet all other Pennsylvania State Grant eligibility requirements to qualify for RTSS. This includes the submission of a FAFSA and Pennsylvania State Grant Form. The student must have completed one academic year defined as having earned 24 semester credits or the equivalent by the time that the student's school checks academic progress for the Pennsylvania State Grant. Attain a minimum cumulative Grade Point Average (GPA) of 3.25. Have a family income that does not exceed $110,000.

## State Work Study Program (SWSP)

The State Work Study Program, administered by PHEAA, provides eligible Pennsylvania students with opportunities to earn money for college education while working for a high tech or community development employer. Participating agencies include non-profit organizations, private businesses and industry. The University of Scranton is also an eligible employer. Students must be enrolled in an eligible program of study to be considered. Applications will be mailed by PHEAA to state grant applicants and are also available in the Financial Aid Office.

## Off Campus Work Study

This program, administered by PHEAA, offers eligible students the opportunity to work in federal, state and local government agencies or non-profit community organizations. Placement referrals are made by PHEAA.

## University of Scranton Scholarships and Grants and Other Programs

## University of Scranton Scholarships and Grants

The University offers a number of awards based on academic merit (see "Scholarships") and financial need (see "Grants"). All accepted traditional freshmen and transfer students are automatically evaluated academically for scholarship aid. University of Scranton grants and scholarships are limited to eight Undergraduate terms (students enrolled in the Master of Occupational Therapy Program are eligible for two 6 additional terms for fall and spring during Graduate year, exclusive of internal transfers). Aid not to exceed Gift Aid Policy. In order to be considered for need-based aid, students must file a FAFSA. For a more complete description of aid programs and policies, please review the Comprehensive Guide to Financial Aid Programs at scranton.edu/financialaid, click on Publications.

## Presidential Scholarship

Renewable, merit-based, full-tuition scholarships awarded to incoming freshmen based on their exemplary academic record. To remain eligible, students must maintain a minimum cumulative GPA of 3.25 and maintain PACE (earn 65% of total attempted credits for freshman and sophomore undergraduates; 70% for junior and senior undergraduates).

## Dean's Scholarship

Renewable, merit-based partial-tuition scholarship awarded to incoming freshmen who demonstrate the highest level of academic achievement. Recipients must maintain a cumulative GPA of 3.25 and maintain PACE (earn 65% of total attempted credits for freshman and sophomore undergraduates; 70% for junior and senior undergraduates).

## Loyola Scholarship

Partial-tuition scholarships are awarded to incoming freshmen and incoming transfer students based on their prior academic record. Renewal is contingent upon the student maintaining a cumulative GPA of 3.00 and maintaining PACE (earn 65% of total attempted credits for freshman and sophomore undergraduates; 70% for junior and senior undergraduates).

## Arrupe Scholarship

Renewable, merit-based partial-tuition scholarships awarded to incoming freshmen students of color who demonstrate academic potential. Recipients must maintain a minimum of 2.50 and maintain PACE (earn 65% of total attempted credits for freshman and sophomore undergraduates; 70% for junior and senior undergraduates).

## Faber Scholarship

Beginning academic year 2019-2020, renewable, partial-tuition scholarships awarded to incoming freshmen and transfer students who are not eligible for any other merit-based awards, but who demonstrate academic promise through their high school achievements. Recipients must maintain a minimum of 2.50 and maintain PACE (earn 65% of total attempted credits for freshman and sophomore undergraduates; 70% for junior and senior undergraduates).

## University Award

Renewable, partial-tuition scholarships, no longer awarded to incoming freshmen and transfer students in recognition of high school achievement. Recipients must maintain a minimum of 2.50 and maintain PACE (earn 65% of total attempted credits for freshman and sophomore undergraduates; 70% for junior and senior undergraduates).

Terms and Conditions of Merit-Based Scholarships Students who transfer out of the university to attend another institution automatically forfeit their merit scholarship upon return to the University of Scranton and will only be considered for need based aid.

## Xavier Grant

These grants are awarded to students who demonstrate financial need. Renewal is contingent upon the student maintaining a cumulative GPA of 2.00, maintaining PACE (earn 65% of total attempted credits for freshman and sophomore undergraduates; 70% for junior and senior undergraduates), and continued demonstrated financial need. Students must file the FAFSA each academic year.

## Claver Grant

This need-based award is made to students of color who demonstrate financial need. Renewal is contingent upon maintaining a 2.00 cumulative GPA, maintaining PACE (earn 65% of total attempted credits for freshman and sophomore undergraduates; 70% for junior and senior undergraduates), and continued demonstrated financial need. Students must file the FAFSA each academic year.

## Endowed Awards

Endowed and Special Awards are funds that benefactors provide to The University of Scranton to assist students in accordance with the award guidelines. To remain eligible, students must maintain the cumulative GPA assigned to their original scholarship fund and maintain PACE (earn 65% of total attempted credits for freshman and sophomore undergraduates; 70% for junior and senior undergraduates).

## Awards for Non-Traditional Undergraduate Students

Dexter Hanley Full-Time Grant For non-traditional undergraduate students enrolled for a minimum of 12 credits per term. Recipients are chosen based upon demonstrated financial need. Renewal of this award is contingent upon the student maintaining a minimum cumulative GPA of 2.00 and maintaining PACE (earn 65% of total attempted credits for freshman and sophomore undergraduates; 70% for junior and senior undergraduates). Students must file a FAFSA each academic year.

Dexter Hanley Part-Time Grant For non-traditional undergraduate students enrolled for fewer than 12 credits per term. Recipients are chosen based upon demonstrated financial need. Renewal of this award is contingent upon the student maintaining a minimum cumulative GPA of 2.00 and maintaining PACE (earn 65% of total attempted credits for freshman and sophomore undergraduates; 70% for junior and senior undergraduates). Students must file the FAFSA each academic year.

## Special Scholarships

Other scholarships available to non-traditional undergraduate students are the Robert L. McDevitt Scholarship, the Newcombe Scholarship for Mature Women, and the Oppenheim Award. To be considered for the McDevitt Scholarship, the student must demonstrate financial need and academic excellence. To be considered for the Newcombe Scholarship a student must have completed a minimum of 60 credits and demonstrate financial need and academic excellence. To be considered for the Oppenheim Award, students must demonstrate financial need. Preference is given to displaced homemakers. Renewal is contingent upon the student maintaining a cumulative GPA of 3.00 and maintaining PACE (earn 65% of total attempted credits for freshman and sophomore undergraduates; 70% for junior and senior undergraduates). Students must file the FAFSA each academic year.

## University Work Study

The University of Scranton funds a number of jobs in various departments and administrative offices for students who do not demonstrate financial need. Applicants must follow the same filing procedures as those specified for the federal work study program. Payment procedures, pay rates, earning limits and maximum hour limitations are identical to those of the federal program.

## Proration of Aid

Undergraduate students in the final semester(s) that are typically full-time (twelve credits or more) that are enrolled less than full-time and enrolled at least six credits will have their Institutional Financial Aid prorated based on a per-credit tuition rate verses a flat rate tuition rate. Federal and/or State Aid will be determined based on policy guidelines for each program.

## Family Tuition Reduction Program

Whenever two or more dependents from the same family are in attendance at the University as full-time undergraduate students in the same semester or session, a Family Tuition Reduction will apply. Each student will receive a 10% discount on total tuition charges. Fees and room and board are not included in the calculation of the discount. The discount is not automatic. An application must be filed with the Bursar's Office each academic year to receive the discount. Forms and additional information may be obtained from the Bursar's Office. Visit scranton.edu/ bursar, click Tuition Discount Programs and select Family Tuition Reduction Program.

## Tuition Remission/Exchange

A Free Application for Federal Student Aid (FAFSA), which covers both state and federal aid, must be filed each year prior to May 1 for the subsequent academic year for eligible employees, spouses and eligible children who intend to enroll as at least a half-time student for any term during the subsequent academic year. Visit studentaid.gov. If it is determined that the student is not eligible to receive state or federal aid, a short form may be required in subsequent years. This short form may be obtained from the Financial Aid Office, and must be submitted for review prior to March 1. The tuition remission benefit will not be paid to a student's account until all required financial aid forms and applications are officially filed. If all applicable financial aid forms are not completed in a timely manner, the actual amount of state and/or federal grants that the student would have been eligible for will be deducted from the University's tuition remission benefit. As a result, the student or parent will be responsible for paying the portion of the financial aid package that was forfeited.

Undergraduate students qualifying for 100% tuition remission is the difference between the actual tuition costs per term less federal and/or state benefits. When eligible for federal and/or state benefits, the total value will be extended to cover the cost of books and academic fees. The maximum allowance for books and academic fees is $250 per semester. Bookstore charges will be issued by the Bursar's Office and placed on the student's Royal Card upon request.

Undergraduate students qualifying for partial tuition remission are limited to actual tuition costs per term less any federal, state, and/or university aid.

## Veterans Education Benefits

The University of Scranton is partnering with the federal government to help fund the cost of tuition for military veterans and their eligible dependents by participating in the federal Yellow Ribbon GI Education Enhancement Program (Yellow Ribbon Program). The University of Scranton has chosen to contribute the maximum 50% funding. When matched by the VA, this contribution, plus the Post 9/11 GI Bill®, will fund the full cost of tuition at The University of Scranton. Therefore, any student

that is receiving funding such as merit based scholarships/or grants automatically forfeits this funding. In the event Post 9/11 GI Bill® funds are exhausted, it is the student's responsibility to provide documentation to the financial aid office that their benefits are exhausted. The student will be evaluated for rein statement of University funding such as merit based scholarships and/or grants provided that they are maintaining Satisfactory Academic Progress and have a completed current academic year FAFSA for consideration for need based funding. Students using Veteran education benefits to attend the University of Scranton will be dismissed if they fail to meet the academic terms of their probation. In addition, the VA will be notified immediately when this dismissal occurs.

Students receiving less than 100% VA Benefits will be reviewed for University based funding on a case by case basis according to our Gift Aid Policy and Outside Gift Aid Policy. The advantage to veterans is that they can select from a wide range of participating private universities, as well as public universities, to pursue undergraduate and graduate studies.

Veterans should contact the VA to determine eligibility for veterans' educational benefits, including the Post 9/11 GI Bill® and the Yellow Ribbon Program. Additional information, including contact numbers of regional VA offices, can be found on the VA Web site at gibill.va.gov.

Veterans and their dependents that are eligible for veterans' educational benefits and wishing to enter The University of Scranton must apply for and meet the admission standards of the University. For admissions information, contact the Undergraduate Admissions Office.

After you have been accepted and have confirmed that you will attend, you need to provide the following to the Financial Aid Office.

1. Once and done: You must submit a copy of your Certificate of Eligibility to the Financial Aid Office. You need only provide this at the onset of your enrollment and upon any changes to your eligibility status or VA chapter, as determined by the Veterans Administration. Veterans or eligible dependents may contact the Veterans Administration directly at 1-888-442-4551 or via the internet at benefits.va.gov/gibill for your information.
2. Every term: You need to complete the University's online Veterans Request for Certification Form and submit it to the Financial Aid Office prior to each semester or term for which you wish to use your Veterans Education Benefits. Submission of this form prompts the Financial Aid Office to certify to the VA that you are enrolled so that the VA may issue the benefits for which you are eligible. (The VA makes all determinations of your eligibility. You must be registered for courses in the term before the Financial Aid Office can certify your enrollment.)

To access The Veterans Request for Certification Form:

1. Log into the University portal, my.scranton.edu.
2. Click on Student links and then click on Veteran.
3. Click Veterans Request for Certification Form and complete.

Please review the Comprehensive Guide to Financial Aid Programs at scranton.edu/financialaid, click on Publications.

"GI Bill®" is a registered trademark of the U.S. Department of Veterans Affairs (VA). More information about education benefits offered by VA is available at the official U.S. government website at www.benefits.va.gov/gibill.

# Army ROTC Scholarships

***Effective 2018-2019 Academic Year***

The Army provides ROTC Scholarships based on merit. Army ROTC Scholarships provide full tuition and fees, $1,200 for books and a monthly stipend based on grade level. There are two types of scholarships: High School and College Campus. Winners of High School level (four-year and three-year advanced designee) ROTC Tuition and Fees Scholarship recipients also receive free campus room and board at The University of Scranton. Free University room and board awards are available to students offered ROTC tuition and fees scholarships prior to the beginning of the academic year. ROTC College Campus Based recipients receive ROTC Tuition and Fees Scholarship along with free campus ROOM ONLY.

University freshmen and sophomores can apply for College Campus Scholarships. For more information, contact the Military Science Department in Rock Hall at (570) 941-7457 or by email ROTC@scranton.edu

# Air Force ROTC Scholarships

Air Force ROTC Scholarships provide up to $18,000 in tuition and a monthly stipend. Fouryear Air Force ROTC Scholarship recipients will also receive free on-campus housing at The University of Scranton. Combination of Air Force Tuition Scholarship

and University scholarship, grants and/or any other aid (exclusive of loans or work study funds) will not exceed the student's tuition cost.

For more information, contact the Aerospace Studies Department at Wilkes University at 570-408-4860, ext. 4872 or by email rotcdl@wilkes.edu.

## Office of Vocational Rehabilitation

Under the Pennsylvania Department of Labor and Industry, the OVR provides help to medically qualified students. Residents of other states should inquire about similar programs available in their states of residency.

## Special Circumstances

If after filing for financial aid, you or your parents experience a reduction in income due to unemployment, divorce or separation, death, loss of untaxed income, or other circumstances you should contact the Financial Aid Office. You may be eligible to receive increased financial assistance due to a special condition and will need to find out what information is required in order to determine your eligibility. Visit scranton.edu/financialaid, and select Forms.

## Gift Aid Policy

## Maximum Gift Aid

University of Scranton scholarship aid, including multiple family discounts and grants, combined with federal and state grants and scholarships are limited as follows:

- Resident students: tuition, room and board charges
- Commuter and off-campus students: tuition, general fee and a $1000 allowance for books and supplies.

## Outside Gift Aid Policy

Students should notify the Financial Aid Office if they are receiving any privately funded scholarships or grants by submitting a photocopy of any scholarship notification and information on availability of these funds for subsequent years. The University will then be able to notify students of any impact on their financial aid package. Please review the **Comprehensive Guide to Financial Aid Programs** at scranton.edu/financialaid, click on Publications.

## Satisfactory Academic Progress Requirements for Receipt of Financial Aid

The U.S. Department of Education regulations require that educational institutions measure students' progress toward a declared educational objective, both quantitatively and qualitatively in order to be eligible to receive Federal Title IV aid, which includes Federal Pell Grants, Federal Supplemental Education Opportunity Grants (SEOG), Federal Work Study, Federal Stafford Loans, and Parent PLUS Loans. The Pennsylvania Higher Education Assistance Agency (PHEAA) and other state grant agencies have separate satisfactory academic progress requirements for their scholarship and grant programs. University of Scranton scholarship and grant recipients must meet the minimum federal requirements and are also subject to minimum, cumulative grade point averages, as specified by the award. External scholarships and grants may have different satisfactory academic progress renewal requirements.

Detailed information about academic probation for continuation in a program of study may be found in the Academic Policies and Regulations section of the undergraduate catalog under the topic Grade Difficulties: Academic Probation and Dismissal.

## Requirements

The measurement of satisfactory academic progress for receipt of federal student aid is broken down into three categories: maximum time frame, PACE and qualitative measure as explained in the following sections.

## Maximum Time Frame

A student may not exceed a maximum number of attempted credits in any program(s), even if aid was not received during all periods of enrollment. The maximum number of credits is 150% of a student's program(s) required credits. Once a student reaches the maximum amount of credits attempted as specified by the program(s), the student will be ineligible to receive further Title IV aid. Students in this category may submit appeals in accordance with the Appeals section of this policy.

## Examples

*Program Credits x 1.5= Maximum Attempted Credits (Note: attempted credits include all transfer and advanced standing credits)*

Biology - 134 credits x 1.5=201 maximum attempted credits

Business Administration -132 credits x 1.5=198 maximum attempted credits

Early and Primary Education - 137 credits x 1.5=205.5 maximum attempted credits

Total credit requirements for your major(s) x 1.5= maximum attempted credits

*Please note that the maximum time frame measurement always uses a student's current major(s) credit requirements. Students who experienced a change in major(s) may appeal the maximum time frame restriction, as outlined in the Appeals section of this policy.*

## PACE

This measurement ensures that a student is completing their program(s) within the maximum time frame allowed. PACE is calculated by dividing total credits earned by total credits attempted and includes accepted transfer and advanced standing credits in both the numerator and denominator. PACE is measured annually at the conclusion of the spring semester. The PACE percentage differs by academic year as shown in the below table:

| Academic Year | Minimum Percentage |
|---|---|
| Freshman & Sophomore Undergraduates | 65% |
| Junior & Senior Undergraduates & Graduate Students | 70% |

Examples are listed below:

## Full-Time Undergraduate Student

| | Credits Attempted | Credits Earned | Cumulative Credits Attempted | Cumulative Credits Completed | Percentage Completed | Meeting Pace |
|---|---|---|---|---|---|---|
| Fall First Year | 16 | 9 | 16 | 9 | 56% | |
| Spring First Year | 16 | 10 | 32 | 19 | 59% | |
| First Annual Measurement | | | | | **59%** | No |
| Summer After First Year | 6 | 6 | 38 | 25 | 66% | Yes |
| Fall Second Year | 15 | 9 | 53 | 34 | 64% | |

| | | | | | | |
|---|---|---|---|---|---|---|
| Intersession Second Year | 3 | 3 | 56 | 37 | 66% | |
| Spring Second Year | 16 | 16 | 72 | 53 | 74% | |
| Second Annual Measurement | | | | | **74%** | Yes |

## Part-Time Undergraduate Student

| Term | Credits Attempted | Credits Earned | Cumulative Credits Attempted | Cumulative Credits Completed | Percentage Completed | Meeting Pace |
|---|---|---|---|---|---|---|
| Fall First Year | 6 | 3 | 6 | 3 | 50% | |
| Spring First Year | 9 | 3 | 15 | 6 | 40% | |
| First Annual Measurement | | | | | **40%** | No |
| Summer After First Year | 6 | 6 | 21 | 12 | 57% | No |
| Fall Second Year | 6 | 6 | 27 | 18 | 67% | Yes |
| Intersession Second Year | 3 | 3 | 30 | 21 | 70% | |
| Spring Second Year | 9 | 6 | 39 | 27 | 69% | |
| Second Annual Measurement | | | | | **69%** | Yes |

## Qualitative Measure

In addition to the maximum time frame and PACE requirements specified above, all students must maintain a minimum cumulative grade point average of 2.00 in order to demonstrate satisfactory academic progress for receipt of federal aid. The 2.00 cumulative GPA requirements apply to all Federal Student Aid Programs and need-based University of Scranton funds and University of Scranton Work Study Program. Presidential and Deans' Scholarship recipients must maintain a minimum cumulative GPA of 3.25, Loyola Scholarship recipients 3.00 and Arrupe Scholarship, University Award and Faber recipients 2.50. All endowed funds must maintain the minimum cumulative GPA assigned to the originally awarded institutional award.

## Monitoring Satisfactory Academic Progress Requirements

Both PACE and GPA requirements are measured at the end of each spring semester. In the interim, all students are responsible to monitor their compliance with all satisfactory academic progress requirements for receipt of aid funds. Students not meeting PACE and/or the minimum grade point average for receipt of federal aid must earn the sufficient number of credits and/or meet the minimum cumulative grade point average requirements before having aid reinstated, or have successfully appealed for an exception to the requirements.

## Financial Aid Suspension

In the event a student's federal and/or University aid is canceled, a formal notice will be sent to the student informing him/her of the action and requirements for reinstatement and procedures for appeal.

Students who have their Presidential Scholarship canceled but have at least a minimum 3.00 cumulative GPA will be awarded a Loyola Scholarship in the amount $16,000; students who have their Deans' Scholarship canceled but have a minimum cumulative GPA of 3.00 will be awarded a Loyola Scholarship in the amount of $12,000 for the academic year. Effective for New Freshman starting in the 2019-2020 academic year.

## Effective for New Freshman starting in the 2019-2020 academic year:

Students who have their Presidential Scholarship canceled but have at least a minimum 2.5 cumulative GPA of 2.5 will be awarded a Faber Scholarship in the amount of $13,000; students who have their Dean's Scholarship canceled will be awarded a Faber Scholarship in the amount of $13,000; students who have their Loyola Scholarship canceled will be awarded a Faber Scholarship in the amount of $13,000 for the academic year.

Students of color that have their Dean Scholarship cancelled, but have at least a 2.5 CGPA will be awarded an Arrupe Scholarship of $12,000.

Students of color that have their Loyola scholarship cancelled, but have at least a 2.5 GPA will be awarded an Arrupe Scholarship as follows:

- Loyola Scholarship of $11,000 and up-Arrupe Scholarship of $10,000.
- Loyola Scholarship of $10,000 and below-Arrupe Scholarship will be $2,000 less the original Loyola amount. For example: Loyola of $10,000 will be awarded $8,000 Arrupe and Loyola of $8,000 will be awarded $6,000 Arrupe.

Students who have their Loyola, Arrupe, Faber or endowed award(s) canceled, but have a minimum cumulative GPA of 2.0 and have filed the FAFSA application, will be reviewed for need-based assistance, provided they meet the minimum PACE requirement.

## Reinstatement of Aid

Financial aid eligibility may be reinstated when the student has reestablished satisfactory academic standing. It is the student's responsibility to notify the Financial Aid Office in writing when cumulative GPA requirements have been met and/or PACE deficiencies are corrected.

Once matriculated at The University of Scranton, credits taken at another institution must be approved by the dean of the college in which the student is enrolled. Detailed academic policies about this topic may be found in the Academic Policies and Regulations section of the undergraduate catalog under Transferring Credits from Other Institutions Once Matriculating at The University of Scranton.

## Appeals

If, due to extenuating circumstances, students fail to meet academic progress requirements, they may appeal the termination of their financial aid. Satisfactory Academic Progress Appeal Form and Student Instructions are located on the Financial Aid website under forms. Appeals must be made in writing to the Director of Financial Aid and must specify the reason(s) why satisfactory academic progress was not achieved and how the deficiencies can be remediated during any approved probationary period. Documentation of the reason(s) for appeal – letters from physicians, copy of death certificate for family member, etc. must accompany the written request. The Financial Aid Office will consult with the Dean's Office of the college in which the student is enrolled to obtain a recommendation on the appeal request. An appeal will be granted in cases where the University determines that a student should be able to meet the satisfactory academic progress standard during the subsequent payment period or develops an academic plan for a student that, if followed, will ensure that she or he is able to meet satisfactory academic progress by a specific point in time. The academic plan may specify requirements on the part of a student and designate a time frame to meet the satisfactory academic progress requirements. All final decisions will be communicated by the Financial Aid Office.

## Financial Aid Probation

A student on financial aid probation may receive federal student aid funds for one payment period, which includes summer and special sessions. The institution may require a student on financial aid probation to fulfill specific terms and conditions such as taking a reduced course load, enrolling in specific courses or availing themselves of specified University or private resources. At the end of one payment period on financial aid probation, the student must meet the University's satisfactory academic progress standards for receipt of financial aid or meet the requirements of the academic plan developed by the Dean's Office and the student to qualify for further federal student aid funds.

For University of Scranton Grants and Scholarships, students not meeting the required minimum, cumulative grade point average at the end of the spring term will be allowed to retain their aid for one term. If at the conclusion of the term they are still not meeting the required minimum, cumulative grade point average, yet have exceeded the grade point average required of the grant or scholarship, one final term of University assistance will be allowed. These provisions do not apply to continued receipt of federal student aid for students whose cumulative grade point average is not the minimum, cumulative grade point average of 2.00, except in cases where a student successfully appealed and was placed on Financial Aid Probation, or is meeting the requirements defined in an individual academic plan approved by their college's Dean's Office.

## Drops, Withdrawals and Incomplete Grades

Credits dropped during the drop refund period of the term as defined on the published academic calendar are not counted as attempted credits. Incomplete courses are counted as attempted credits for the determination of PACE and maximum time frame.

## Stop Outs and Re-admitted Students

When a student has a break in enrollment and is readmitted, satisfactory academic progress will be evaluated taking into consideration any transfer and advanced standing credits earned during the break in enrollment and accepted by the University.

## Terms, Parts of Term and Summer

Terms are comprised of all sessions and parts of term within a term. For measurement of satisfactory academic progress, January Intersession will be combined with spring term.

## Advanced Standing Credit

All forms of advanced standing credit such as advanced placement, transfer, validation, challenge, that are accepted by the University are considered as both attempted and earned in the calculation of PACE and maximum time frame.

## Audited Courses

Audited Courses are not considered as attempted or earned in the calculation of PACE and maximum time frame.

## Repeated Courses

Repeated courses will be counted each time attempted and will be only counted in earned once. However, if a course which had been passed is repeated and the latter grade is an "F," the course will no longer be counted in earned.

## Multiple Majors/Degrees

The maximum time frame will be calculated using all required credits to complete multiple majors and all credits attempted and earned will be used in the calculation of PACE.

## Change of Major

The maximum time frame will be calculated using the current major and all credits attempted and earned, including those for prior major(s) will be part of PACE and cumulative grade point average calculations.

## Subsequent Degrees

Measurement of maximum time frame and PACE will be calculated based on the requirements of the subsequent degree.

## Consortium Agreement

Credits taken at another institution under an approved Consortium Agreement will be used when determining the student's number of credits earned. They will not affect a student's cumulative grade point average.

# Students Rights and Responsibilities

## Student's Rights You have the right to ask for the following information about the University and financial aid:

- What federal, state, institutional and private financial aid programs are available?
- What must students do to apply for aid and how is eligibility determined?
- How is aid distributed to students? • What are the rights and responsibilities of aid recipients?
- How and when is financial aid awarded?
- What are the terms and conditions of any work program that is included in your financial aid award notification?
- What is the interest rate, repayment schedule, total amount borrowed, and deferment or cancellation provisions for any student loan borrowed?
- What are the satisfactory academic progress standards used, and what needs to be done to reestablish eligibility once one has failed to maintain progress for financial aid?
- What are the names of the organizations that accredit or license the University and its programs?
- What special facilities and services are available to handicapped students?
- What is the cost of attending the University?
- What is the University's refund policy?
- Information on the University's programs, and the instructional, laboratory and physical plant facilities associated with those programs.
- What are the names of the University's faculty?
- Who are the Financial Aid Officers, where are they located and who should I contact with questions on financial aid?

## Student's Responsibilities It is your responsibility to:

- Comply with all financial aid filing procedures including the completion of required applications by the published deadline(s).
- Understand academic progress requirements necessary for retaining aid.
- Complete all financial aid applications accurately, honestly and on time.
- Provide all required documentation when requested.
- Notify the Financial Aid Office of any changes to the information initially reported.
- Notify the University of any changes in enrollment status, permanent home address, phone number, local address or name.
- Complete entrance and exit counseling for loan borrowers.
- Understand and comply with loan repayment obligations.

- Understand the refund policy.
- Perform work study duties in a responsible manner and in compliance with the terms and conditions of employment.
- Request in writing a reevaluation of aid eligibility when academic progress requirements or credit deficiencies have been corrected.
- Read, understand and keep copies of all forms sent to you for signature.
- Complete the third party authorization form to allow access to their student record.

## Financial Aid Refund Policy

In accordance with federal regulations, all students who receive federal financial aid and who completely withdraw from the University during the first 60% of a semester, or who fails to earn a passing grade during an enrollment period, will have their federal financial aid (Pell Grants, Supplemental Educational Opportunity Grants, Teach Grants, Stafford Loans and PLUS Loans) adjusted based on the percent of the semester completed prior to the withdrawal. That is, students will be entitled to retain the same percent of the federal financial aid received as the percent of the semester completed. This percent is calculated by dividing the number of days in the semester (excluding breaks of five days or longer) into the number of days completed prior to the withdrawal. The date of withdrawal will be the date the student begins the withdrawal process in accordance with the official procedures outlined in the catalog. There will be no adjustment to federal financial aid after 60% of the semester is completed.

Students who began attendance and have not officially withdrawn and fail to earn a passing grade in at least one course, will be considered to have withdrawn at the midpoint of the semester for financial aid purposes. Students who must totally withdraw from school should consult with the Financial Aid Office on how the refund policy applies to their situation. Students should consult the **Comprehensive Guide to Financial Aid Programs** at.scranton.edu/financialaid, click on Publications for specific information on both state and University of Scranton aid adjustment policies due to complete withdrawals during a term.

## When a Student Fails to Earn a Passing Grade During an Enrollment Period

For students who began attendance and have not officially withdrawn and fail to earn a passing grade in at least one course offered (ALL "F" GRADES) during an enrollment period will be considered to have withdrawn at the midpoint of that semester if a last date of attendance cannot be determined for financial aid purposes. For students who receive all "I" grades, "I's" indicate postponement of the completion of the courses and are given an extension; students must complete all of the required work before the midpoint of the next regular semester. If students do not earn a passing grade in at least one course offered, they will be considered to have withdrawn at the midpoint of that semester if a last date of attendance cannot be determined for financial aid purposes. For students who receive all "NG" grades, "NG" will indicate temporary grades. Temporary grades are issued when a faculty member fails to meet the deadline for submission for grade reports. Such temporary grades will be changed to permanent grades when issued by the professor. If students do not earn a passing grade in at least one course offered, they will be considered to have withdrawn at the midpoint of that semester if a last date of attendance cannot be determined for financial aid purposes. Students should consult the **Comprehensive Guide to Financial Aid Programs** at scranton.edu/financialaid, click on Publications for specific information aid adjustments policies due to complete withdraws during a term.

## Federal Verification Policy and Procedures

The University of Scranton requires verification of FAFSA data when a student's record is selected by the federal government. In addition, there may be cases where the University may select a student record to be verified due to inconsistencies on the information reported or to clarify reported data, etc. For additional information, please review the **Comprehensive Guide to Financial Aid Programs** at scranton.edu/financialaid, click on Publications.

## Overpayment Policy

If a student leaves the University after receiving a cash disbursement for living expenses from Title IV grants, the University must determine if the student must repay a portion of the cash disbursement. If it is determined that an overpayment has been made, the institution will notify and bill the student for the amount of the overpayment.

A student would owe a repayment if the cash disbursement exceeds the living expenses incurred up to the point of the student's withdrawal. Certain non-refundable expenses, such as books and supplies, will be included in the overpayment calculation at full cost.

Work Study funds are excluded from the calculation because they have been earned by the student as well as other federal loan funds, because the student is already obligated to repay them.

## Consumer Information

The Higher Education Opportunity Act of 2008 requires all post-secondary institutions to provide prospective and enrolled students with consumer information that includes student outcomes, student financial assistance, health and safety, and intercollegiate athletics. The University of Scranton provides links to consumer information and required disclosures at scranton.edu/consumerinfo. The page can be accessed through the Consumer Information link in the footer of all University webpages and is updated periodically as the most current data becomes available.

For a more complete description of aid programs and policies, review the **Comprehensive Guide to Financial Aid Programs** at scranton.edu/financialaid, click on Publications.

# Scholarships

## Merit Scholarships

Each year the University offers merit scholarships based on a student's high school record of academic achievement. These scholarships include both Presidential (full-tuition) and Dean's, Loyola and Arrupe (partial-tuition) scholarships. No separate application is necessary.

## Scranton Preparatory School Scholarship

This four-year, full-tuition scholarship, initiated in 1947 by the President and Board of Trustees of the University, is given to a graduate of the Scranton Preparatory School. Selection of the recipient is on the basis of academic achievement, qualities of leadership, service to the Preparatory School, and recommendation of the president and the dean of studies of the Preparatory School.

## Royal Scholars Program

Supported by a grant from the National Science Foundation's Scholarships in Science, Technology, Engineering and Mathematics (S-STEM) program, the Royal Scholars Program assists students in developing their identities as STEM professionals, explore careers in STEM, and take steps along the appropriate pathways to these careers to improve the STEM workforce. Students from northeastern Pennsylvania who meet the qualifications of the grant are invited to apply. These include citizenship or permanent residency, submission of the application to The University of Scranton as a full-time student in a STEM major, demonstration of need for federal financial aid as indicated by FAFSA, and demonstration of academic ability or potential in STEM.

## Named Endowed Scholarships

Each year, The University of Scranton offers more than 300 need and merit-based endowed awards that have been established by generous alumni and friends of the University.

***The Eugene J. '41 and Elizabeth J. Agnone Scholarship:*** This scholarship, established in 1997 by Elizabeth Agnone, aids students with financial need from the Scranton area who are interested in pursuing careers in medicine.

***The Alperin Family Scholarship:*** Members of the Alperin Family (Irwin E. Alperin, Myer Alperin, Toni Alperin Goldberg, the late Joel M. Alperin and their families) established this scholarship in 1987. It is given to incoming students who have demonstrated excellence in the classroom and have financial need. First preference is given to employees of the Alperin family companies and their families, but all students from Lackawanna County and Northeastern Pennsylvania are considered.

***The Alumni Society of The University of Scranton Legacy Scholarship:*** This scholarship, established through contributions by the Alumni Society, is available to children and grandchildren of University of Scranton alumni.

***The Joseph James and Mary Agnes Andrako Scholarships:*** These scholarships were established in 1988 according to the provisions in the will of the late Joseph J. Andrako. The scholarships benefit students who have financial need and who are enrolled in a pre-medical or allied health sciences program.

***The Antognoli Family Scholarship:*** William J. Antognoli, M.D., '57 established this scholarship fund in memory of his parents, Dr. Anthony & Helen S. Antognoli, and to honor his stepmother Lillian Antognoli, his brother and sister-in-law, John '67, G'69 &

Barbara Antognoli, and his niece, Sara Antognoli '03, G'05. The scholarship provides financial assistance based on financial need.

***The John L. Astringer Memorial Scholarship:*** Created through a bequest from John L. Astringer, this scholarship is awarded based on financial need.

***The Frank A. '41 and Helen S. Baciewicz Scholarship:*** This scholarship was created in memory of Frank Baciewicz by his family and widow. The student must embody characteristics of generosity, thoughtfulness, humor, and mental and physical tenacity. First consideration is given to students from the Dickson City or Scranton area.

***The Michael B. Bagdzinski '99 Memorial Scholarship:*** This scholarship was established by family, classmates and friends of Michael, a member of the Class of 1999 who passed away during his senior year. The scholarship is given to theater students at the University.

***The Fr. Robert J. Barone Memorial Scholarship:*** Established by Linda D'Andrea Barrasse, M.D., '77 and Rev. Richard E. Fox '88 in 2007, this scholarship provides assistance to rising sophomores majoring in theology/religious studies who have demonstrated a passion for the subject.

***The Edward F. Bartley '38 Scholarship:*** Joseph Austin '52 and his wife, Mary, established this scholarship in 1996 to honor Edward Bartley, University professor emeritus. The scholarship is awarded to Lackawanna County residents, with preference given to students from the Mid-Valley area.

***The Judee M. Bavaria G'72 Endowed Scholarship in Nursing****:* Established in 2015 by University trustee, Judee M. Bavaria G'72, this scholarship is awarded to undergraduate students majoring in nursing.

***The Anne M. Bednar Scholarship:*** This scholarship was established in 2001 by Robert J. Bednar Jr. '69 in honor of his mother, Anne. The scholarship benefits honorably discharged veterans who are enrolled at the University of Scranton, who do not qualify for Yellow Ribbon benefits. Spouses and dependents of honorably discharged disabled veterans will also be considered. Second preference will be given to students who are considered "first responders" or their spouses and children who have financial need as determined by the Financial Aid Office.

***The Rev. John J. Begley, S.J., Scholarship:*** This scholarship, established by the Scranton Jesuit Community to honor one of its own, provides financial assistance based on academic excellence and demonstrated need.

***The Regina B. Inch Bennett '93, G'96 Scholarship:*** Established in 2011 by William Jeffrey Welsh, Ph.D., this scholarship is awarded to full-time graduate students. Students must hold full-time employment and may be enrolled in either campus-based or online graduate programs.

***The Dorothy & Velio E. Berardis, M.D., '45 Memorial Scholarship:*** In 1989, Dorothy Berardis established this scholarship to honor the memory of her husband, Velio. The fund provides awards based on merit and need to senior pre-medical students. Preference is given to those who plan to attend Jefferson Medical College.

***The Robert M. (Coach Bess) Bessoir '55 Scholarship:*** This scholarship was established in 2008 by Drs. Stephen '84 and Colleen '83 Joseph with a challenge grant including alumni, friends and family to benefit students graduating from Coach Bessoir's high school alma mater, W.L. Dickinson High School, Jersey City, NJ, or students studying Exercise Science.

***The Michael J. Bevilacqua Scholarship:*** The Bevilacqua family established this scholarship in 1989 as a memorial to honor the late Michael J. Bevilacqua. The scholarship is available to students from families who have more than one student in college at the same time.

***The Monsignor Eugene G. Bilski Scholarship:*** Established in 2006 by Mrs. Mary Bilski Wardach in memory of her nephew, Msgr. Eugene G. Bilski, this scholarship is based on need and merit and is available to students of Polish heritage who reside in Lackawanna County.

***The Edward T. Blackledge III '75 Scholarship:*** This scholarship, established by a bequest from the estate of Edward T. Blackledge III '75 benefits undergraduate students studying at the University.

***The Chester and Veronica Bochinski Memorial Scholarship:*** This scholarship was established by James C. Bochinski '70 and his sister, Marie A. Ryan, in memory of their parents. Aid is given to students from Northeastern Pennsylvania who pursues a course of study in psychology, nursing or business administration.

***The Francis P. Boland, M.D., '29 Memorial Scholarship:*** Family, friends and colleagues established this scholarship shortly after Dr. Boland's death in 1987. Each year, a grant is given to pre-medical students, based primarily on merit.

***The Paul M., Ph.D., '47 and Joan A. Borick Scholarship:*** Dr. Borick and his wife established this scholarship for students from Lackawanna, Susquehanna, Monroe and Northampton counties who intend to pursue a course of study in microbiology.

***The William E. Atkisson & William J. Brady Sr. Scholarship:*** Endowed in 2010 by University Trustee William J. Brady '83 and his wife, Nancy Atkisson Brady '83, to honor their fathers, this scholarship provides assistance to a rising junior with financial need who is a first generation college student.

***The Charles F. "Chuck" Brierley Memorial Scholarship:*** This scholarship is awarded to students with financial need in memory of Charles F. "Chuck" Brierley who passed away suddenly when his daughter, Jennifer '06, was just a freshman. The scholarship has been supported through fundraising events organized by the Brierley family.

***The Margaret Briggs Foundation Scholarship:*** In 1995, the Margaret Briggs Foundation established this scholarship for an incoming freshman who demonstrates financial need. Students from Lackawanna County are given first consideration; thereafter, qualified students from one of the surrounding counties are considered.

***The Burke Family Scholarship:*** Income from this scholarship benefits students with demonstrated financial need. Thomas F. Burke, Class of 1909, played a leadership role in establishing the scholarship.

***The James J. Burns Memorial Scholarship:*** Established in 2006 in memory of Jim Burns by his son, David J. Burns, Ph.D., '81, family members and friends, this is a need-based scholarship awarded to children and grandchildren of current or retired employees of the ARAMARK Corporation or to children and grandchildren of current or retired employees of any food service provider.

***The Alio J. Buselli '44 Memorial Scholarship:*** Mrs. June Buselli established this scholarship in memory of her husband to assist incoming freshmen from Lackawanna County pursuing degrees in science.

***The Rev. Henry J. Butler, S.J., Memorial Scholarships:*** Two scholarships have been created in memory of Fr. Butler who died in 1981 while serving as the executive vice president of the University. The first, for students from Holy Cross High School (formerly Bishop Hannan High School in Scranton), was established in 1984 by James Summers. The second, for students from Scranton High School, was established in 1985 by John A. McCrane, a classmate of Fr. Butler at Georgetown University.

***The Frank V. and Josephine P. Caccavo Scholarship:*** Established by University Trustee James A. Caccavo '84 and his wife, Kimberly, to honor James' parents, this scholarship benefits a Catholic high school graduate from New York City or Northern New Jersey with financial need who is enrolled in the Kania School of Management.

***The Private Frank J. Cali Scholarship:*** Mr. and Mrs. Samuel C. Cali created this scholarship in memory of Mr. Cali's brother. It is available to students who demonstrate financial need as determined by the Financial Aid Office.

***The Elizabeth G. "Betty" Caputo Memorial Scholarship:*** Established by retired adjunct faculty member, Joseph Caputo '56, G'61, in 2007 to honor the memory of his beloved wife Betty, this scholarship is awarded to a history or political science major residing in Lackawanna County. Betty was a caring and loving wife, dedicated mother, and loyal member of the University family, having served as the faculty secretary in the University's history and political science department for sixteen years and also as secretary and treasurer of the Purple Club.

***The Terrence S. '28 and Jean McGuire Carden Memorial Scholarship:*** Terrence S. Carden Jr., M.D., '60 created this scholarship in 2007 in honor of his parents. Awards are made to children or grandchildren of current or retired postal workers, schoolteachers or journalists engaged in the gathering and reporting of news to the public, regardless of the medium.

***The Carey Family Scholarship:*** Charles '75 & Kathleen Carey established this scholarship in 2014 to recognize the extraordinary efforts of Catharine Daley Carey to fund the educational opportunities for her two sons, Harry, class of 1967 and Charles, class of 1975. This scholarship is awarded to students of single parent households.

***The Bridget Carney Scholarship:*** This scholarship was established in 1972 by a bequest of James I. Kearney, M.D. Income from the scholarship, which is named to honor the memory of Dr. Kearney's mother, is awarded to students whose parents were or are parishioners of St. Ignatius Parish, Kingston, Pennsylvania.

***The John J. Casazza, Jr., Ph.D. '52 Memorial Scholarship:*** This scholarship, established by a bequest from the estate of John J. Casazza, benefits undergraduate students majoring in chemistry.

***The Timothy J. Casey '03 Memorial Scholarship/Class of 2003 Scholarship:*** This scholarship was established by the family and friends of Timothy J. Casey '03 who passed away unexpectedly in his senior year. It benefits students with financial need during their senior year who are majoring in history and involved in student activities.

***The Michelle A. Castonguay Memorial Scholarship:*** Endowed in 2012 by Dennis and Suzanne Castonguay in memory of their daughter, Michelle, who passed away during her junior year, this scholarship is need-based. First preference is given to students enrolled in the College of Arts & Sciences with a psychology major.

***The Chorba-Mezick Family Scholarship:*** This scholarship was established by James A., Ph.D., '61 and Mary P. Mezick to honor Dr. Mezick's parents, Andrew and Margaret, and his uncles and their spouses, Michael and Mildred Chorba, and Stephen and Anna Chorba. Aid is provided to an incoming freshman with financial need from the Mid-Valley area.

***The David E. Christiansen Scholarship:*** Endowed in 2009 by the University to honor Dave Christiansen, Vice President Emeritus of Finance / Treasurer, for his years of service, this scholarship is awarded based on financial need.

***The Cinram Manufacturing Scholarship:*** This scholarship was established in 1999 to benefit sons and daughters of Cinram Manufacturing employees who have at least three years of service at Cinram.

***The Class of 1952 50th Reunion Scholarship:*** In recognition of its Golden Anniversary Reunion, the Class of 1952 established this scholarship, which is awarded based on financial need and academic merit.

***The Class of 1959 Scholarship:*** Established in 2011 by members of The University of Scranton, Class of 1959, this scholarship provides funds for undergraduate students with financial need.

***The Class of 1961 Scholarship:*** In commemoration of their 50th reunion, held in June 2001, the class of 1961 established this need-based scholarship.

***The Class of 1964 50 Year Fund:*** In recognition of its Golden Anniversary Reunion, the Class of 1964 established this scholarship to be awarded based on financial need and academic merit.

***The Class of 1968 Memorial Scholarship*:** In recognition of its Golden Anniversary Reunion, the Class of 1968 established this scholarship to be awarded based on financial need. Selection preference is as follows: students from the local area, from amount first and second-generation college students, and descendants of members of the Class of 1968.

***The Class of 1969 Memorial Scholarship:*** Established in 2011 by David C. Blake, Ph.D., J.D. '69, this scholarship benefits students with financial need.

***The James J. Clauss '47 Scholarship:*** Established in 1973 by a local businessman and alumnus from the Class of 1947, this scholarship provides aid to students who require financial assistance but do not qualify for most aid programs based on financial need. First consideration is given to Northeastern Pennsylvania students.

***The Jon A. Clauss Scholarship:*** This endowed scholarship was established in 1980 to honor the memory of Jon A. Clauss, son of Thomas F., M.D., '47 and Joan Clauss of Justus. Awards are made based on financial need.

***The Patricia A. Byrnes Clifford '86 Scholarship:*** Established in 2009 by Patricia A. Byrnes Clifford '86, this scholarship is awarded to undergraduate students based on financial need in The Kania School of Management. First preference is given to female students from Red Bank Catholic High School, Red Bank, New Jersey. Second consideration is given to any student from Red Bank Catholic High School or Christian Brothers Academy, Lincroft, New Jersey. Students from Monmouth County, New Jersey may also be considered.

***The Catherine "Cate" Manley Coffey '86 Fellowship Fund:*** Established in memory of a beloved 1986 alumna upon her untimely death in a tragic automobile accident in June 2002, this fund is awarded to students entering their senior year in the Kania School of Management who have demonstrated exemplary academic achievement. Cate was the first female president-elect of the University's National Alumni Society and would have served her term in 2002-2003.

***The Justin Charles Collins Memorial Scholarship:*** Established in 2005 by family and friends of Justin Charles Collins, this is a need-based scholarship as defined by the Office of Financial Aid. It is awarded to a sophomore, junior or senior student from Pennsylvania, New Jersey or Maryland majoring in computer science.

***The Condron Ambition and Achievement Scholarship:*** Established in 2000 by Christopher M. "Kip" Condron '70, H'03 and his wife, Peggy H'16, who both served as University Trustees and Pride, Passion, Promise Campaign co-chairs, this scholarship benefits incoming freshmen from Lackawanna County in the Kania School of Management who demonstrate exemplary ambition and self-achievement, particularly in non-academic areas.

***The Connaught Laboratories Endowment:*** This scholarship is available to any student with financial need as determined by the Financial Aid Office.

***The James A. '43 and Joan Connolly Scholarship:*** Mr. Connolly '43 and his wife established this scholarship which provides financial assistance based on academic excellence and demonstrated need.

***The Connolly-Blewitt Family Scholarship:*** Established by William G. Connolly, Jr. '59 in memory of his parents and aunt, William G. and Loretto D. Connolly and Elizabeth M. Blewitt, this scholarship is awarded on the basis of academic excellence and financial need, with preference given to the children of current or retired postal employees and school teachers.

***The Louis and Ernestine DeSarro Cortese Memorial Scholarship:*** Vincent E. Cortese '37 established this scholarship in 1998 in memory of his parents. Recipients must be enrolled in the College of Arts and Sciences.

***The John N. '48 and Ann P. G'74 Costello Memorial Scholarship:*** Established by Attorney Margaret Costello in honor of her parents, this scholarship is awarded to a student majoring in either elementary education or business. Both need and merit are considered.

***The Michael S. Costello '96 Memorial Scholarship:*** This scholarship is dedicated in memory of Michael Costello '96, who lost his life in the September 11, 2001 attack on the World Trade Center. The scholarship is available to certain surviving family members of 9/11 victims and children of the classes of 1993 through 1997. Students from Long Island will also be considered for the scholarship.

***The Cottone Scholarship:*** A bequest from Benjamin J. Cottone, M.D., '27 established this scholarship for pre-medical students.

***The Grace H. Courtney Scholarship:*** Raymond S. Courtney established this scholarship with a bequest in memory of his wife. It provides financial assistance to students majoring in foreign languages.

***The Cruciani Family Scholarship:*** Dominick A. Cruciani Jr., M.D., '54, his wife, Florence, and their family established this scholarship for students from Mid-Valley and Valley View high schools who intend to pursue courses of study in health fields.

***The Marie E. Gilligan Cummings Gv77 Memorial and Thomas P. Cummings, Sr. '52 Scholarship:*** This need-based scholarship was endowed in 2008 in memory of Marie E. Gilligan Cummings and is awarded to a Dunmore Senior High School graduate who is pursuing a degree in education or accounting.

***The Timothy T. Cummings '81 Memorial Scholarship:*** Created by family and friends to honor the memory of Tim Cummings '81, this scholarship is awarded to students from Dunmore High School, Holy Cross High School and its successors, North Pocono High School or Scranton Preparatory School, based on financial need.

***The William J. Cusick Purple Club Scholarship in Memory of Frank J. O'Hara '25:*** William Cusick '52 established this scholarship, which is based on demonstrated financial need, for students who reside in New Jersey or Eastern Pennsylvania.

***The Salvatore Cusumano Family Scholarship:*** This scholarship, established through a bequest from Mr. Cusumano, is awarded to students who are enrolled in the pre-medical program and who have demonstrated financial need.

***The Frank and Agatha Davis Memorial Scholarship:*** Thomas J. Davis, CPA, '69 and his wife, Patricia, established this scholarship in 2007 in honor of Mr. Davis' parents. Awards are made to students with financial need.

***The Harold J. Davis, M.D., '74 Scholarship:*** This scholarship, established in 1994, is presented to a female undergraduate from Northeastern Pennsylvania pursuing a degree in the health sciences. The recipient must be involved in extra-curricular activities. Both financial need and scholastic merit are considered.

***The Michael D. DeMichele, Ph.D. '63 Scholarship:*** Endowed by Dr. DeMichele, family, alumni, and friends in honor of those history and political science faculty that he served for over fifty years at The University of Scranton, this scholarship is awarded each year to a senior history, political science or international studies major on the basis of scholarship, service and need.

***The Shirley A. DiAndriola Scholarship:*** Established in 1998 through a bequest in the will of Shirley A. DiAndriola, this scholarship is intended for graduates of Old Forge High School.

***The DiRuggiero Family Scholarship:*** Established in 2010 by Ralph '73 and Susan DiRuggiero, this scholarship benefits students with need.

***The Dohmann Scholarship Fund:*** The Dohmann Scholarship Fund was established through the will of Mildred Mulderig Adonizio, in memory of her sister Mary and John '49 Dohmann. The scholarship is awarded to a deserving high school graduate or graduates residing in the geographic area of Northeastern Pennsylvania.

***The Eugene J. Donahue '68 Scholarship:*** This scholarship was established in 1997 in memory of John and Ann Donahue by Eugene Donahue, a resident of Clarks Summit and a 1968 graduate of The University of Scranton. The scholarship is for students who show a demonstrated need. Recipients must be undergraduates, non-traditional students, and first consideration is given to students residing in Lackawanna County.

***The Robert J. Donovan, M.D., '43 Memorial Scholarship:*** A bequest from Dr. Donovan endowed this scholarship which is awarded based on financial need.

***The Judith A. Doyle Scholarship:*** This scholarship was created by Joseph T. Doyle '69 in honor of his wife and in appreciation of his Jesuit education at The University of Scranton. The scholarship provides financial assistance to students with financial need.

***The Adam and Anna Dranginis Scholarship:*** This scholarship was established in 2000 by Edward Dranginis to honor his parents' memory. Adam Dranginis was a coal miner who worked in the Scranton area from 1904 to 1925. The Dranginis Scholarship is awarded to students of Lithuanian-related origin, ancestry or birth.

***The Denise Dubbels '94 Memorial Scholarship:*** This scholarship was created by students and faculty members in memory of Denise, an Honors Program student and member of the special Jesuit Liberal Arts Program, who died in an automobile accident while studying in Russia. Her degree was conferred posthumously in 1994. The scholarship aids students who plan to study in developing countries.

***The Attorney John J., Sr. '51 and Joanne M. Dunn Scholarship:*** Endowed in 1998 for students enrolled in the University's Kania School of Management, recipients of this scholarship are residents of Lackawanna County.

***The Dunstone Drucker Scholarship***: This scholarship was created by Anne Drucker P'14, '16, in memory of her parents, William '52 & Shirley Dunstone G'57 and husband, Steven, The fund benefits students majoring in science or business.

***The F. Keane Eagen '54 Memorial Scholarship:*** This scholarship was created by Mark Eagen in tribute to his father, Frank, who was a member of the Class of 1954. It is awarded to students with demonstrated financial need.

***The Robert I. Edelsohn Scholarship:*** In 1964, a bequest was given from the estate of Robert I. Edelsohn, a Polish immigrant who became a Scranton businessman and realtor. The endowment provides scholarships for students with financial need.

***The Educational Freedom Scholarship:*** In 1990, Joseph E. McCaffrey '38 established this scholarship to aid students who graduate from Lackawanna County parochial schools. Mr. McCaffrey, a member of the New Jersey Chapter of Citizens for Educational Freedom, passed away in 2000.

***The ETR and Associates, Inc. Scholarship:*** This scholarship was created by Robert E. Lee, president of ETR and Associates, in appreciation of the fine Jesuit education his daughter, Kathleen '93, received at The University of Scranton. It is awarded based on financial need.

***The John J. Fendrock '48 Scholarship:*** Established in 2019 by Lillian Fendrock in honor of her husband John '48, this scholarship is awarded to first-generation college students from Lackawanna County.

***The Peter J. Farrell and Maida Lippert Farrell Scholarship:*** Awards from this scholarship, established in 1988 by Professor Matthew C. Farrell, Ph.D.'48 are made to students of Native American ancestry.

***The Neal J. Fasula '69 Memorial Scholarship:*** Established in 2004 by Mrs. Joyce Fasula in loving memory of her husband, Neal, this scholarship is awarded to employees of Gerrity's Supermarkets or their dependent children.

***The John Francis Finetti Memorial Scholarship:*** This scholarship was established by the family of a young man from the Hill neighborhood near the University's campus. It is awarded to students who demonstrate ability in history, music, forensics or theatre, with preference given to students from Lackawanna County.

***The Finn Family Scholarship:*** This scholarship was established by William H. Finn '67 and his wife, Michele, in honor of Bill's parents, Martha and Herbert Finn, and the entire Finn family. The proceeds are used to assist students of color who demonstrate financial need, show academic strength and reside in an urban city within Connecticut or New York.

***The Laureen Finn Memorial Scholarship:*** When Laureen Finn died in her sophomore year at The University of Scranton, family, friends and fellow members of the Class of 1990 established this scholarship in her memory. Proceeds assist a freshman education or English major with preference given to residents of Englishtown, New Jersey.

***The William H. Finn '67 Memorial Scholarship:*** This scholarship was established in 2004 in fond memory of William H. Finn '67, former senior managing director of Bear, Stearns & Company, Inc., located in New York City. Awards are made to qualified students, based on a combination of need and merit as determined by the University's Financial Aid Office.

***The Timothy J. Finnerty '90 Memorial Scholarship:*** Tim's wife, Theresa, created this scholarship in his memory. Tim was a victim of the World Trade Center attack on September 11, 2001. First preference for this merit-based scholarship is given to students from New Jersey who are enrolled in the Kania School of Management and have financial need.

***The Martha Fitch Scholarship:*** In 1955, a bequest was made to the University by Miss Martha Fitch, a retired nurse and former superintendent of Thompson Hospital, Scranton. Income is used to provide scholarships for students with financial need.

***The Rev. John J. Fitzpatrick, S.J. Scholarship:*** This scholarship honors Rev. John J. Fitzpatrick, S.J., who, prior to his death in 1987, served The University of Scranton for 22 years in various roles including dean of men, Jesuit minister, student counselor and University chaplain. The scholarship helps students of academic excellence who have demonstrated financial need. Preference is given to undergraduate students from Northeastern Pennsylvania. The scholarship was established through the generosity of Midori Yamanouchi, Ph.D., Professor Emerita of Sociology/Criminal Justice.

***The Fitzsimmons Family Scholarship:*** Edward, Esq. '54 and Kathryn Fitzsimmons of Gladwyne, established this scholarship in 1996 to assist freshmen from Northeastern Pennsylvania with demonstrated need.

***The Fleet Scholarship:*** Sons and daughters of Fleet employees are eligible for this scholarship. The University's Financial Aid Office selects students on the basis of financial need.

***The James H. Foy, M.D., '27 Memorial Scholarship:*** Established in 1987 by Joseph J. Rupp, M.D., '37 and his wife, to honor Dr. Foy, whose encouragement and support helped Dr. Rupp in his education, the scholarship is given to pre-medical students who also demonstrate proficiency in the humanities.

***The Joseph P. Franceski, Sr. '42 Memorial Scholarship:*** Created in 2008 by Joe Franceski's children, this need-based scholarship benefits students from Forest City Regional High School or from Susquehanna County.

***The James M. Franey Scholarship:*** This scholarship, established by a bequest from the estate of James M. Franey, benefits students from Northeastern Pennsylvania.

***The Sara G. Friel Memorial Scholarship:*** Before her death in 1982, Sara G. Friel, aunt of then University president, Rev. William J. Byron, S.J., directed that part of her estate be used to assist students with financial need each year.

***The Joseph P. Gallagher '61 Memorial Scholarship:*** The Greater Scranton Chamber of Commerce created this scholarship in 1995 to honor the memory of Mr. Gallagher, who was employed by the Chamber for 15 years. The scholarship is given annually to sons and daughters of an employee of any current member of the Chamber. Preference is given to senior students.

***The Garger Family Scholarship:*** This scholarship was established by Gregory Garger '81 to support students with financial need.

***The Katherine E. and James A. Geiger Scholarship:*** Matthew Geiger '81 endowed this scholarship to honor his parents and to provide assistance to students from a family of four or more children.

***The Morris '26 and Mae H'00 Gelb Scholarship:*** Established in 1989 through gifts from the Gelbs and members of their family and friends, this scholarship benefits students of all faiths and is awarded based on financial need.

***The John J. Gentile Memorial Scholarship:*** Gentile family members and friends established this scholarship in 2008 in memory of John J. Gentile, a businessman and entrepreneur in Northeastern Pennsylvania. The scholarship is based on merit and need and is available to a business student from Northeastern Pennsylvania.

***The John J. Geron '66 Scholarship:*** This scholarship was created by John Geron and is awarded based on financial need.

***The William Gerrity Scholarship:*** Established by the William Gerrity Scholarship Committee to honor Bill Gerrity, mentor, educator and community volunteer, this scholarship is awarded to juniors or seniors enrolled in the Panuska College of Professional Studies who are pursuing a degree in education.

***The Brendan J. Giblin '06 Memorial Scholarship:*** This scholarship was established through the fundraising efforts of the family and friends of Brendan Giblin '06, a student who lost his life in an accident during his senior year at the University. The fund benefits students from Philadelphia or its suburbs in Pennsylvania and southern New Jersey.

***The Rev. Joseph G. Gilbride, S.T.D., Memorial Scholarship:*** This scholarship benefits residents of Peckville (Blakely Borough), Carbondale, Throop, Nanticoke, and the Parsons section of Wilkes-Barre and Plymouth. It was established by Fr. Gilbride to provide assistance to students with financial need.

***The Dr. A. John and Mrs. S. Maria Giunta Scholarship:*** Dr. Giunta, Professor Emeritus, Economics-Finance, endowed this scholarship in honor of his loyalty to The University of Scranton and in appreciation for the fine education his own children (Carmen '82, Jo Ann '84, Lucia '91 and Mary-Louise '92) received here. The scholarship is given to students pursuing a degree in economics.

***The Edward J. '38 and Isobel Grady Scholarship:*** A bequest in the will of Edward J. Grady established this scholarship. Recipients must meet the University's financial aid eligibility criteria.

***The Peter S. Graybar '93 Memorial Scholarship:*** Created to honor Peter S. Graybar, a beloved friend and active member of The University of Scranton's Class of 1993, this scholarship provides assistance to a junior who has demonstrated active involvement in extracurricular activities.

***The Edward T. Groncki '46 Scholarship:*** Established by his brothers, Thomas and Stanley Groncki, to honor Ed's memory, this scholarship is awarded to students who live in Lackawanna County.

***The Irving and Edythe Grossman Scholarship:*** This scholarship was created through the generosity of Irving and Edythe Grossman. Eligible students must demonstrate academic achievement and participate in community service.

***The Robert J. Gummer '58 Memorial Scholarship:*** In loving memory of their father, the children of Robert J. Gummer established this academic and need-based scholarship in 2000 for an accounting major from Scranton. Robert Gummer was a loyal alumnus from the Class of 1958 and a good friend to his alma mater.

***The Judge Frederick W. Gunster Scholarship:*** The estate of Joseph F. Gunster '17 provided funds for this merit scholarship to honor the memory of Joseph's father.

***The Margaret Gunster Scholarship:*** Joseph F. Gunster '17 remembered his mother this scholarship endowed to assist students from low-income families.

***The Ruth Gunster Memorial Scholarship:*** In 1971, Joseph F. Gunster '17 established this endowment in loving memory of his wife. The scholarship, which was increased by a bequest in 1980, is awarded to students from Northeastern Pennsylvania.

***The John and Lucille Jerrett Guzey Scholarship:*** Endowed in 1978, this scholarship assists members of the Scranton Boys and Girls Club as well as students with financial need.

***The A. J. Guzzi General Contractors, Inc. Scholarship:*** Angelo J. Guzzi created this scholarship to assist students from Abington Heights, Valley View, Mid-Valley or Lakeland High Schools. The recipient is an incoming freshman who demonstrates financial need.

***The Rev. Dexter Hanley, S.J., Scholarship:*** This scholarship, named for the late Dexter Hanley, S.J., former president of The University of Scranton, assists undergraduate, non-traditional students.

***The Hanlon Family Scholarship:*** Established in 2010 by Joseph P. Hanlon '90, this scholarship provides need-based awards for students from New York City (Bronx) or Cranford, NJ enrolled in the Kania School of Management.

***The Sarkis R. Hazzouri Jr. Memorial Scholarship:*** This scholarship was established in 1997 to assist incoming freshmen from Lackawanna County. First preference is given to graduates of West Scranton High School enrolled in the Kania School of Management.

***The William Randolph Hearst Foundation Scholarship:*** Graduates of The University of Scranton's pre-college program, the University of Success, are eligible to receive this scholarship.

***The Rev. William B. Hill, S.J., Scholarship:*** This scholarship was established by the late Gerardine C. Hill to honor her brother, Rev. William B. Hill, S.J. Between 1969 and 2002, Fr. Hill served in several administrative positions at The University of Scranton, including Special Assistant to the President.

***The Hill Neighborhood Association/Peter Cheung Scholarship:*** This scholarship, named in honor of Peter Cheung, who died in an accident while an undergraduate, is awarded to a junior or a senior who has demonstrated service to the neighborhood and the University community. Preference is given to residents of the city's Hill Section.

***The Hoeschele-GE Scholarship:*** This scholarship was established by General Electric in honor of David B. Hoeschele '50. Mr. Hoeschele was chosen by General Electric for a prestigious award for his leadership in the field of electronic circuit design. He requested that funds be used to establish a scholarship for United States citizens or permanent residents from Northeastern Pennsylvania who are enrolled as full-time undergraduates in either the physics or electrical engineering program. This scholarship is based on need and academic merit.

***The Elizabeth Ann Burke Holmes Memorial Scholarship:*** Established in 2011 by George R. Holmes, Ph.D.,'61 to honor his mother, this need-based scholarship is awarded to students majoring in education who live in Archbald, Pennsylvania.

***The Frank J. Holmes '36 Memorial Scholarship:*** Established in 2005 by the Holmes family, this scholarship is awarded to students with financial need who are pursuing degrees in criminal justice. Mr. Holmes graduated from The University of Scranton in 1936 and went on to a successful career as a special agent and instructor in the Training Division of the FBI.

***The George Ronald Holmes, Ph.D., '61 Scholarship:*** Dr. Holmes, an alumnus of the Class of 1961, and his wife, Elaine, endowed this scholarship to provide aid to junior and senior psychology majors.

***The Robert V. Horger '37 Scholarship:*** This scholarship, established by Robert V. Horger '37, a prominent Scranton banker, is given to students from the incoming freshman class who demonstrate financial need.

***The Frank and Jean Hubbard Scholarship:*** This scholarship, established through a generous gift from local business owners Frank and Jean Hubbard, is awarded to graduates of North Pocono High School in the top 25% of their class who have demonstrated financial need.

***The ITT Scholarship:*** The International Telephone and Telegraph Corporation established this scholarship to encourage students to pursue academic excellence. The Financial Aid Office annually selects an incoming freshman recipient and the award is renewable based on academic achievement.

***The Edward D. Jacobe Sr. '77 and Edward D. Jacobe Jr. Scholarship:*** This scholarship was established in 2005 by Mrs. Ruth Jacobe in memory of her husband and son and is awarded to students in need of financial aid who might not otherwise be able to attend the University.

***The Anastasia Jaditz Memorial Scholarship:*** This scholarship was established in 2006 by the family and friends of Anastasia "Stacie" Jaditz, a student who lost her life in an accident during her freshman year. It honors Stacie's memory as a generous and warm young woman.

***The Albert R. '43 and Dolores T. Jasuta Memorial Scholarship:*** In loving memory of her parents, Stephanie Jasuta Fischer established this scholarship in 2005. Both Mr. and Mrs. Jasuta were passionate supporters of the University, its good works and its alumni programs. This scholarship is awarded to qualified students as determined by the University's Financial Aid Office.

***The Jesuit Community Scholarship:*** Substantial annual gifts from The University of Scranton Jesuit Community have made possible an endowment to provide unrestricted scholarship aid. Scholarships are awarded based on financial need and academic achievement.

***The Jethro Scholarship:*** Established by a University faculty member, Dr. Everett R. Brown, this scholarship is awarded to a freshman management, marketing or economics/finance major who demonstrates that he or she has earned a significant amount of total college expenses. It is not dependent upon financial status of parents or guardians nor high school grades, and is available for four years, as long as the recipient maintains a grade point average of 3.00 or better.

***The B. Carl Jones Memorial Scholarship:*** This scholarship was established in 1988 by family, friends and colleagues of the late B. Carl Jones, a University trustee and benefactor. The endowment provides financial assistance, based on need, to students from Lackawanna County who are enrolled in the Kania School of Management.

***The JWN-65-JAN Scholarship:*** This scholarship was established in 2019 and is awarded to full-time undergraduate students with demonstrated academic achievement and financial need. Recipients must be a sophomore, junior or senior student from Northeastern Pennsylvania who are majoring in science, education, or a health related field.

***The Neil Kabatchnick, Esq. '50 Memorial Scholarship:*** Established in 2012 through an estate gift from Frances B. Kabatchnick in honor of her husband, this need-based scholarship is awarded to students majoring in history, political science or any other curriculum with an emphasis on U.S. History.

***The Anne Maroni Kadow Memorial Scholarship:*** Endowed in 2011 by University Trustee Joseph J. Kadow, Esq.,'78 in memory of his mother, this need-based scholarship is awarded to students from West Scranton High School.

***The Stanley Karam Scholarship:*** Fred C. Karam '68 established this scholarship in 2000 to honor his father. Lackawanna County residents are eligible for the scholarship, with first preference to graduates of West Scranton High School who enroll in the Kania School of Management.

***The Francis J. Kearney Scholarship:*** A 1977 gift from a retired pharmacist, followed by a bequest in 1979, made possible this scholarship to assist students with financial need.

***The George and Barbara Keib Scholarship:*** The scholarship is for students in need of financial aid who are attending or have been admitted to The University of Scranton.

***The William H. Kelly Jr. '93 Scholarship:*** In 2002, the Kelly family established this scholarship in tribute to their son and brother, Bill, a victim of the World Trade Center attack on September 11, 2001. Junior and senior students who qualify for this need-based award must have qualities that emulate Bill Kelly, including generosity of spirit, exceptional kindness and a love of the outdoors.

***The Adam King Memorial Scholarship***: Established in memory of Adam King, a young boy from Scranton, PA who passed away after his short battle with Acute Lymphocytic Leukemia, this scholarship assists students from Lackawanna County who wish to pursue a career in Pre-Med or Nursing, with preference to those who wish to concentrate in the area of pediatrics.

***The Irene T. Kocak G'54 Memorial Scholarship*:** This scholarship, established by a bequest from the estate of Irene T. Kocak, benefits students from Binghamton, New York.

***The Rev. Stephen A. Kollar Memorial Scholarship:*** This scholarship was established in 1977 through a bequest from the late pastor of Holy Family Church in Scranton and is awarded to students who bear a kinship to Rev. Stephen A. Kollar.

***The William A. Koons, Joseph A. Koons and John Koons Scholarship Fund:*** Established by Dr. Martin R. and Eve Lebowitz in memory of Eve's three brothers, this full tuition, need-based scholarship is awarded to residents of the Shenandoah area who are of Lithuanian descent, and are enrolled in any major in The College of Arts and Sciences except computer science.

***The Mary R. Walsh Krahe Scholarship:*** Established in 1987 by Mary R. Walsh Krahe in memory of her brothers, Nicholas E. Walsh and William E. Walsh, and the Walsh family of Old Forge, this scholarship provides support to students from Lackawanna County with preference given to students who attended Old Forge High School.

***The Kuehner Family Scholarship:*** This scholarship was established by Carl J. Kuehner '62 and his wife, JoAnne H'01, of Naples, Florida, in 1985. Carl later joined the Board of Trustees and served as Chairman. The endowment provides assistance to students from single-parent families in Lackawanna County with financial need.

***The Lackawanna Medical Group Scholarship:*** This scholarship provides assistance to students from Lackawanna County who have financial need and intend to pursue careers in health-related professions. First preference is given to children of persons affiliated with Lackawanna Medical Group.

***The Lanahan Scholarship:*** Established in 1996 by members of the Lanahan and Gecawich families, including John '84 and Kevin '84, this scholarship assists female, first-year students with demonstrated need. Preference is given to students pursuing degrees in elementary education.

***The Joseph F. and Robert G. Lavis '35 Scholarship:*** In 1990, a gift was made to the University through the estate of Robert G. Lavis '35, a Scranton businessman. Income from this gift provides a full four-year scholarship to an incoming freshman. This scholarship also helps junior and senior students who have a reduction in their ability to meet educational expenses.

***The Anthony A. Lawrence, Esq., '39 Memorial Scholarship:*** Elizabeth Lawrence established this scholarship in 2002 to honor her husband, Anthony '39, who enjoyed a long and distinguished career that earned him recognition in the first edition of Who's Who in American Law. It is awarded based on financial need.

***The Edward P. Leahy Scholarship:*** Established in 1989 by Edward R. Leahy, Esq., '68 in honor of his late uncle, this scholarship provides aid to students with financial need.

***The Lenns Family Scholarship:*** Established by Charles A. Lenns, Esq. '75 in 2013, this scholarship is awarded to undergraduate students from Riverside High School. The award is given to first-year students based on academic excellence, leadership in, or participation in extracurricular activities, civic or humanitarian achievement.

**The Frank Marzluff Lewis '51 Memorial Scholarship:** This scholarship, established by a bequest from the estate of Frank Marzluff Lewis '51, is awarded to a high-achieving young man raised in a single-parent household who would not otherwise be able to attend college. Preference will be given to young men whose fathers have died.

***The LF Brands, Inc. Scholarship:*** This scholarship provides financial assistance to children of current and past employees of LF Brands (formerly Leslie Fay). It is based on academic achievement and financial need, and first consideration is given to students who are enrolled in the University's Kania School of Management.

***The Walter and Betty Lisman Scholarship:*** Established in 2008 by University Trustee Carl Lisman and his wife, Tina, to honor Carl's parents, this scholarship provides awards to students from Wilkes-Barre or Luzerne County who are in the pre-medical program.

***The James John Lonsdorf Memorial Scholarship***: Established by Joan Lonsdorf in 2006, this scholarship supports educational diversity at the University, providing awards to students with African-American heritage.

***The William V. Loughran and Albert E. Peters Scholarship:*** Established in 1985 through a gift from Albert E. Peters and Elizabeth Loughran Peters, this scholarship assists seniors who intend to pursue graduate studies in the fields of science and medicine. The scholarship is based on merit and need.

***The Bruce Lowenberg and John McLean Kelly Memorial Scholarship:*** Established in 1988 by Mrs. Frances McLean Lowenberg, this is a merit-based scholarship.

***The Lynch Family Scholarship:*** Created by John J. Lynch III '83 in 2008, this scholarship supports educational diversity at the University. It is awarded to students of African-American heritage.

***The Joseph F. Lynch Jr. Memorial Scholarship:*** Established by Lawrence R. Lynch '81 and his wife, Keli, in honor of Larry's father, Joseph, this scholarship provides need-based aid.

***The Frank J. and Mae C. MacEntee Memorial Scholarship:*** Established by the MacEntee family in memory of their beloved parents, this scholarship assists students with financial need.

***The Harry and Helen Mack Scholarship:*** This scholarship was established by Mrs. Helen Mack in memory of her husband, Harry. It is awarded to a student enrolled in the Kania School of Management, based on financial need.

***The Beth Anne '91, Brian S. '95. and Paul J. Mackie Memorial Scholarship:*** This scholarship was created by James and Anne Mackie in memory of their children, Beth Anne, Brian and Paul. It is a need- and merit-based award for an eligible student who is a psychology, criminal justice or environmental studies major.

***The Malcolm C. MacKinnon Memorial Scholarship:*** Dolores MacKinnon established this endowment in 2007 in memory of her husband, Malcolm, former president and chairman of the board of United Gilsonite Laboratories. The scholarship is awarded to students enrolled in either the pre-medical or nursing program who display exceptional kindness and generosity of spirit.

***The Peter F. and Marie Rose Flood Mackrell Scholarship:*** Established by James J. Mackrell, M.D., '60 in memory of his parents, this need-based scholarship is awarded to students from Lackawanna County who intend to pursue courses of study in pre-medicine.

***The Edward J. Sr. '60, H'97 and Alice Manley Scholarship:*** Ed, a local businessman, alumnus and former chair of the University's Board of Trustees, and his wife, Alice, established this scholarship for students who live in Lackawanna County.

***The Ann M. Manno Scholarship:*** This scholarship provides aid for full-time undergraduate students residing in Lackawanna County, Pennsylvania who demonstrate financial need and work part-time to help defray educational costs. Preference is given to Accounting majors or to students who major in Special Education.

***The Mariotti Family Scholarship:*** This need-based academic scholarship was established by John Mariotti, D.M.D., '75 and Margaret Quinn Mariotti, Au.D., a University trustee, to benefit incoming freshmen from St. Augustine College Preparatory School in Richland, New Jersey. Students from Lackawanna County are also considered.

***The Sally and Richard Marquardt Scholarship:*** This scholarship was established in 1997 by Mr. and Mrs. Marquardt, residents of Waverly. It is given each year to qualified local students.

***The Claude R. Martin, Jr. & Marie Culkin Martin Scholarship:*** Established by the Estate of Claude R. Martin, Jr. Ph.D. '54 in 2017, this scholarship benefits students majoring in marketing or communications.

***The John P. Martin, Ed.D., '57 Scholarship:*** Established in 2002, this scholarship is awarded to undergraduate students majoring in philosophy or theology who are considering the Jesuit religious life.

***The Armond and Thomassina Mascelli Scholarship:*** This need-based scholarship was endowed in 2012 by John C. Mascelli, Esq. '71 and his wife, Catherine, to honor John's parents.

***The Martin L. Mattei '42 Memorial Scholarship:*** When Martin L. Mattei '42, the first superintendent of schools in the Pittston Area School District, passed away in 1999, his family established this scholarship for Pittston Area High School graduates who demonstrate high academic achievement and financial need.

***The Florence Zygmunt McAndrews and Emma Kacer Scholarship:*** This scholarship was established anonymously in 2001 in honor of two nurses who touched the lives of those in their care with their compassion. The scholarship is for nursing students from Northeastern Pennsylvania, with first consideration to residents of Lackawanna County, and is based on financial need and a demonstrated commitment to serving others.

***The Congressman and Mrs. McDade Program for Public Service Scholarship:*** This scholarship, established in 1990, supports students majoring in political science who are doing 3-credit (120-hour) internships in Scranton-area government offices with the intention of pursuing careers in public service. The student must be a sophomore or junior who intends to do the internship in their junior or senior year for any academic session.

***The Joseph M. McDade H'69 Scholarship:*** Contributions from two special tributes in 1998 to retiring U.S. Congressman McDade were used to establish this scholarship to provide need-based financial aid for students from Northeastern Pennsylvania. Mr. McDade is also a University of Scranton Trustee Emeritus.

***The Robert L. McDevitt, K.S.G. Scholarship:*** This scholarship, established in 1977, provides assistance to undergraduate, non-traditional students. The scholarship was established by Robert L. McDevitt, K.S.G., a Georgetown University classmate and longtime friend of the late Rev. Dexter L. Hanley, S.J., who served as president of the University from 1970 to 1975.

***The Patrick J. McGeehan '50 Memorial Scholarship:*** Mrs. Betty Ann McGeehan established this scholarship in 2000 to celebrate the 50th anniversary of her husband's graduation from the University. The scholarship is awarded to residents of Luzerne County.

***The Monsignor Andrew J. McGowan H'82 Scholarship:*** The F.M. Kirby Foundation, Inc. established this scholarship to honor Msgr. McGowan, a University Trustee Emeritus and honorary degree recipient. It is used to assist students who reside in Lackawanna or Luzerne County.

***The Joseph J. McGrail, C.P.A., '46 Scholarship:*** Joseph J. McGrail '46 established this need-based scholarship for third- and fourth-year students attending the University. Residents from Lackawanna County are given first preference for this academic scholarship awarded to students enrolled in the Kania School of Management.

***The Rev. Bernard R. McIlhenny, S.J., Scholarship:*** Joseph A. Quinn, Jr., Esq., '63 established this need-based scholarship to honor Admissions Dean Emeritus Fr. McIlhenny, and also to honor his parents, Mary and Joseph A. Quinn Sr. First consideration is given to residents of Luzerne County, followed by residents of Lackawanna County.

***The John J. and Kathleen McLaine Scholarship:*** John J. McLaine '71 established this scholarship in 1997 to honor his parents. Preference is given to students from Lackawanna County who are enrolled in the Kania School of Management.

***The John P. McLean '40 Scholarship:*** This scholarship was established in 1985 by former Trustee Thomas E. Sheridan '60 and many other alumni, students, family and friends to honor John P. McLean, Professor Emeritus of Accounting, who was a University faculty member for over 50 years. It is awarded to accounting students.

***The Mecca Family Scholarship in Memory of Reverend Leo J. O'Malley:*** This scholarship was established by William A. Mecca Jr. '55 in 2007 in memory of Reverend Leo J. O'Malley, his mentor and advisor. The awardee is a student who has economic need, serves the Roman Catholic Church, demonstrates life achievements and aspires to be a strong leader with ethical values.

***The Men and Women for Others Scholarship:*** Established by University of Scranton alumni couple, Michael K. Short '99 and Susanna Puntel Short '01, this scholarship provides aid to students who are committed to service.

***The John S. Mercer, M.D. '80 Family Scholarship:*** Established by John S. Mercer, M.D. '80 in 2013, this scholarship benefits students who are graduates of a New Jersey Catholic high school who are pursuing degrees in the health care field at the University.

***The Charles E. Merrill Scholarship:*** In 1969, the Charles E. Merrill Trust of New York City made a gift to the University to assist students of the Catholic faith. Mr. Merrill, philanthropist, stockbroker and co-founder of Merrill Lynch & Company, created the trust through his estate.

***The Joseph R. '56 and Barbara J. Mesko Memorial Scholarship:*** Established in 2004 by the family of Joseph R. Mesko '56, this academic and need-based scholarship is given to an incoming freshman from Dunmore High School. Mr. Mesko was a well-known, respected businessman in the greater Scranton area and a true friend and strong supporter of The University of Scranton.

***The Doris A. Milani Memorial Scholarship:*** Established in 2011 by Frank A. Milani, M.D., '55 in loving memory of his wife, Doris, this scholarship is awarded based on financial need.

***The James E. Milder, M.D., '68 Memorial Scholarship:*** Mrs. Phyllis Milder established this scholarship in 2007 in memory of her husband, James, to benefit a student with established need who is an orphan, foster child or the child of a widowed parent.

***The Thomas M. Mistele '75 & Rev. Edward Gannon, S.J. Scholarship***: Established in 2015 to honor the late Rev. Edward Gannon, S.J., founder of the Special Jesuit Liberal Arts Program, this scholarship is awarded to undergraduate students in the Special Jesuit Liberal Arts Program.

***The Angelo H. Montrone Scholarship:*** This scholarship was established by Paul M. Montrone, Ph.D., '62, H'86, past president of the Henley Group, Inc. and former chair and CEO of Fisher Scientific International, Inc., to honor his father. It is awarded to a Kania School of Management student who best exemplifies Angelo's lifelong dedication to self-improvement and ethical behavior in business.

***The Dr. Leslie E. Morgan Scholarship:*** This scholarship was established through a bequest from Dr. Morgan to assist persons studying to become members of one of the health-services professions.

***The I. Leo H'09 and Ann H'98 Moskovitz Scholarship:*** Mr. and Mrs. Moskovitz, community leaders and friends of the University, established this scholarship for students who are majoring in business or science, with first preference given to those who live in Lackawanna County.

***The Michael Mulhall '10 Memorial Scholarship***: Endowed by Peggy and Neil Mulhall, family members and friends, including Sean Kirk '10 and Michael Clark '10, this scholarship is awarded to students majoring in Education, with first preference given to students interested in special education. Shortly after graduation, Mike passed away tragically in a car accident while on his way to work at a camp for special needs children. Classmates and family members worked on several initiatives to fund the endowment.

***The Joseph F. Mullaney '38 Memorial Scholarship:*** A bequest from Dr. Mullaney '38 established this scholarship for physics, mathematics and science students.

***The Robert W. Munley Scholarship:*** This scholarship was established by Robert W. Munley, Esq., '52 and Judge James M. Munley '58 to honor their father, Robert W. Munley. It supports students from Lackawanna County.

***The Murphy Scholarship:*** This scholarship was established in 1957 through a bequest of Miss Margaret Murphy, a retired schoolteacher and lifelong resident of Scranton. Margaret and her sister, Katherine, made the award "in loving memory of our mother, father, and brothers" to assist students with financial need.

***The Dr. Louis and Muriel Murphy Scholarship:*** Dr. and Mrs. Murphy, longtime friends of the University, established this scholarship to provide financial assistance to students.

***The Murphy Family Scholarship:*** This need-based scholarship was established in 2005 by Justin Murphy '76 and Liz Altemus Murphy '83 to honor Justin's parents.

***The John J. Murray, Ph.D. '49 Memorial Scholarship:*** Established in 2011 through an estate gift from John J. Murray, Ph.D. '49, this scholarship is awarded to students majoring in English or Theatre as long as those majors include studying Shakespeare. Equal consideration will be given to students majoring in mathematics.

***The Brian Musto '12 Memorial Fund:*** This scholarship is dedicated to the memory of Brian Musto '12, a University graduate who lost his lost his battle with Hodgkin's Lymphoma in January 2018. This fund was established by family and friends to provide critical use funds to support University students facing financial hardship. Primary consideration will be provided to students experiencing personal illness, with preference to students battling cancer. Secondary consideration will be provided to families experiencing a reduction of income and/or high medical expenses due to illness of any family member.

***The James Nasser Family Scholarship:*** This scholarship was established in 1986 by Mr. and Mrs. James R. Nasser. Preference is given to students from Lackawanna County who are in the pre-medical program and have financial need.

***The Professor Dr. Jay Nathan, Ph.D., Scholarship:*** Retired university professor, Dr. Jay Nathan, Ph.D., a former Senior Fulbright Scholar, endowed this scholarship in 2011 to provide financial assistance to graduate students in the Kania School of Management from Mongolia, Thailand, India, Poland or the Central Asian countries of Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistand. If there are no graduate students eligible for the scholarship, consideration will be given to Kania School of Management undergraduate students from these countries.

***The Henry J., Sr. and Mary Nebzydoski Memorial Scholarship:*** Established by Joseph Nebzydoski, V.M.D. '74, Andrew Nebzydoski V.M.D. '77 and Margaret A. Nebzydoski Tomazic in memory of their parents, this scholarship assists students in need.

***The Newcombe Endowed Scholarship:*** This scholarship was established through grants from the foundation created under the will of Philadelphia philanthropist Charlotte W. Newcombe, and is combined with University matching funds to benefit returning women students or second career women students.

***The R. Barrett Noone, M.D., '61 Scholarship:*** Dr. R. Barrett Noone '61 established this scholarship for University students residing in Bradford, Sullivan, Philadelphia, Montgomery or Delaware counties. The scholarship recipient must be in the pre-medical program.

***The Marian R. Oates '90 Memorial Scholarship:*** This scholarship, established in memory of an alumna who died in an automobile accident shortly after her graduation in 1990, benefits middle-income students from New Jersey enrolled in the Kania School of Management.

***The Margaret McGill O'Brien Memorial Scholarship:*** Endowed in 2010 by Thomas P. O'Brien '86 as a need-based scholarship for students of large families (five or more children), this scholarship is awarded to students from Sacred Heart of Jesus Catholic and St. Joseph's Preparatory High Schools which are both located in Philadelphia.

***The Raymond S. O'Connell '42 Scholarship:*** Shortly before his death in 1981, Raymond established this scholarship for students with financial need. After his death, his sister, Sara E. O'Connell, completed the gift.

***The OfficeMax Scholarship:*** This scholarship is awarded to qualified students based on financial need as determined by the Financial Aid Office.

***The Frank O'Hara '25 Scholarship:*** This scholarship was established in 1988 by friends and family in memory of "Mr. University," Frank O'Hara. Mr. O'Hara served in many capacities over a long career with the University. The scholarship provides assistance to students with financial need.

***The Marian M. and Patrick F. '66 O'Hara Scholarship:*** This endowment provides unrestricted scholarships to students with financial need.

***The William T. Oldfield, Jr. '77 Memorial Scholarship:*** Established in 2014 by Patricia Rago, family and friends, this scholarship is awarded to undergraduate students or non-traditional students majoring in computer science or mathematics who have demonstrated leadership qualities.

***The Felix and Emily Olsommer Scholarship:*** Endowed in 2011 by John J. Leahey '58 and his wife, Helen, in memory of Helen's parents, this is a need-based scholarship.

***The Jack O'Malley '54 Memorial Scholarship:*** Established in 2007 by Mrs. Jo Etta R. O'Malley in honor of her husband, Jack, this scholarship is awarded to students with need who are majoring in physics or biophysics.

***The Ryan T. O'Malley '99 Memorial Scholarship***: Dr. John '64 and Mrs. Helene O'Malley, along with their children, John E. '87, Edward M. '88, Julianne O'Malley Philipp '91, Diane and Erin O'Malley-Stewart '94, G'97 established this need-based scholarship in 2012 to honor their beloved son, Ryan '99. This scholarship is awarded to undergraduate students majoring in computer science who share Ryan's interest in fitness and community service. Second consideration will be given to any computer science major.

***The Oppenheim Family Scholarship:*** This scholarship was established by the Oppenheim family, who for many years owned and operated Oppenheim's Department Store and its predecessor, the Scranton Dry Goods Company. The scholarship is awarded to part-time, non-traditional students who need financial assistance.

***The Hobart N. Owens, M.D., '30 Memorial Scholarship:*** Established in 2011 by Roberta F. Owens in loving memory of her father, this is a need-based scholarship for undergraduate students enrolled in the nursing program.

***The Pakistani Student Fellowship:*** Established by longtime University Economics/Finance professor Riaz Hussain, Ph.D., G'80 this fellowship provides funds for students pursuing graduate studies in business administration, chemistry, counseling, health administration, nursing, occupational therapy, physical therapy, or software engineering. The recipient must be a citizen of Pakistan or Bangladesh.

***The Rev. G. Donald Pantle, S.J., Scholarship:*** This scholarship, established by the Scranton Jesuit Community to honor one of its own, provides financial assistance based on academic excellence and demonstrated need.

***The Christopher Jason Perfilio '95 Memorial Scholarship:*** Born November 16, 1973 in Kingston, PA, Christopher was the son of Dr. Joseph A. Perfilio, D.C. '51 and Marjorie Campbell-Perfilio, B.S. in Music, The Julliard School, NYC, and beloved brother of Joseph C. Perfilio '95. Both Joseph and Christopher were in the academic honors program, the Special Jesuit Liberal Arts (SJLA) program with majors in Finance and Philosophy and minors in music. Christopher tragically passed away on August 6, 1994 from injuries sustained in an accident prior to his senior year. President, Rev. Joseph A. Panuska, S.J, conferred his

degree with honors posthumously at commencement on May 28, 1995. In the 1995 edition of the Windhover student yearbook, Christopher's classmates rendered him "The Renaissance Man" because of his multi-faceted talents in spirituality, leadership, academics, sports, music, theater, philanthropic care and concern for us all. This scholarship assists philosophy and theology/religious students, as well as students in the SJLA program, who have records of high academic achievement and who demonstrate financial need. This scholarship is renewed annually dependent upon continuous eligibility, both academically and financial need.

***The John R. and Maureen Pesavento Scholarship:*** This scholarship was established by business and community leaders, John and Maureen Pesavento, to benefit a student from Lackawanna County with financial need.

***The Peter Pestinikas '60 Memorial Scholarship:*** In 2005 a gift was made to the University through the estate of Peter Pestinikas to endow this scholarship for students with financial need.

***The Joseph E. Picharella '41 and Nancy A. Picharella Scholarship:*** This scholarship is awarded annually to support students of academic merit who wish to pursue their education at The University of Scranton. Preference will be given to student(s) entering the College of Arts and Sciences from Dunmore High School.

***The Scott R. Pilarz, S.J. Scholarship:*** Established in 2011 by the Sorbera Family to honor the friendship established between Fr. Pilarz and the Sorbera Family, The Scott R. Pilarz, S.J. Scholarship is a need-based scholarship.

***The Zeena Plesko Scholarship:*** In 2019 a gift was made to the University through the estate of Zeena Plesko to endow this scholarship for students with financial need.

***The Dr. Andrew W. Plonsky '40 Scholarship:*** When Dr. Plonsky, Professor Emeritus and co-founder of the University's computer science program, passed away in 2000, his widow, Dorothy, established this memorial scholarship for Lackawanna County residents who are studying computer science.

***The Paul J. Poinsard, M.D., '36 Memorial Scholarship:*** Mrs. JoAnne Poinsard established this scholarship in memory of her husband, a University alumnus. The scholarship assists students in the pre-medical program**.**

***The Rev. George C. Powell '43 and Msgr. John K. Powell '33 Memorial Scholarship:*** The Powell family established this scholarship to provide financial assistance to students who demonstrate good character, leadership and financial need.

***The Rev. Edward R. Powers, S.J., Scholarship:*** This scholarship, established by the Scranton Jesuit Community to honor one of its own, provides financial assistance based on academic excellence and demonstrated need.

***The Ernest D. Preate Sr. '69 Memorial Scholarship:*** The family of Ernest D. Preate Sr., Esq., established this scholarship in 1982. First consideration is given to students who are residents of Lackawanna County with financial need.

***The President's Business Council Fifth Anniversary Scholarship:*** This Presidential scholarship was named in perpetuity to recognize the fifth anniversary of the founding of the President's Business Council, the Council's Fifth Annual Award Dinner, and the dedication that the 2006 honoree and Council Chair, Christopher M. "Kip" Condron '70, H'03, demonstrated during the Council's formative years.

***The Rev. J. J. Quinn, S.J., Scholarship:*** This scholarship honors the late Rev. J. J. Quinn, S.J., Professor Emeritus of English. It was endowed by alumni and former students to honor Fr. Quinn's many years of service to the University, his students and the community. Based on merit and need, the scholarship is available to students in all academic disciplines.

***The Patrick J. Quinn Memorial Scholarship:*** This fund was established to honor the memory of Patrick J. Quinn, father of Kevin P. Quinn, S.J., 25th President of The University of Scranton, by the Quinn family at the time of Fr. Quinn's inauguration. The scholarship is awarded to the son or daughter of an active member of the New York City Fire Department who is a first generation college student. Preference is given to a candidate whose parent died in the line of duty as a member of the FDNY.

***The Raftery Family Scholarship in Honor of William J. Parente, Ph.D.:*** Established in 2018 by Brian Raftery, Esq. '91 and Ruth Flynn Raftery, Esq. '91 to honor University Professor, Dr. William Parente, this scholarship benefits students from Old Forge High School who have demonstrated financial need.

***The William V. Ed.D., '61, G'63 & Marie Rakauskas Memorial Scholarship:*** This scholarship was established by the family of long-time University professor William Rakauskas, Ed.D., to ensure that Dr. Rakauskas' name is forever associated with his beloved University of Scranton. It is awarded to a student from Lackawanna County, preferably majoring in English or education.

***The Steve Ranton '07 Memorial Scholarship:*** After Steve's death during his senior year at Scranton, his family and friends established this scholarship to provide assistance to students with financial need.

***The Theodore Rasieleski Memorial Scholarship:*** Endowed in 2008 by former Board of Trustees Chairman John Dionne '86, and his wife, Jacquelyn '89, to honor Jackie's father, this need-based scholarship is awarded to graduates of Scranton High School majoring in nursing. Second consideration is given to undergraduate students from Scranton High School who are in the Physical Therapy or Occupational Therapy track.

***The Frank X. '61 & Patricia A. Ratchford Memorial Scholarship:*** Mrs. Patricia A. Ratchford and her family established this scholarship in memory of her husband. The scholarship, based equally on financial need and academic merit, is for residents of Scranton and Dunmore who are majoring in English, philosophy or human resources.

***The Betty Redington H'92 Scholarship:*** This scholarship was established through a bequest from Mrs. Redington, a former trustee and longtime friend of the University and its students, and is awarded based on financial need.

***The Francis E. and Elizabeth H'92 Brennan Redington Scholarship:*** This scholarship was established in 1984 according to provisions in the will of the late Francis E. Redington. It provides financial assistance to students on the basis of both ability and need. A portion of the income each year supports scholarships for students from the Republic of Ireland.

***The John C. H'89 and Kathryn S. Redmond Foundation Scholarship:*** Mr. Redmond, a prominent businessman and honorary degree recipient, established this scholarship before his death in 1989. The scholarship is given to an outstanding student who is not eligible for any direct financial aid, as specified by state or federal regulations, but who shows financial need because of the student's family situation (e.g. number of children in school needing parental support).

***The Raymond M. Reed '57 Scholarship:*** This scholarship, established by Mr. and Mrs. Raymond M. Reed, is awarded to students residing in Dunmore or Scranton. Students are selected based on merit and financial need.

***The Evelyn M. '52 and Katherine T. '53 Reilly Scholarship:*** This scholarship, established by sisters Evelyn and Katherine Reilly, is awarded to undergraduates business majors who are residents of Scranton.

***The Joseph C. Reilly Scholarship:*** This scholarship is awarded to qualified students who graduated from Scranton public schools and are majoring in science. It was established by Joe, who was a member of the University's physical plant staff for over 40 years.

***The Dr. Richard A. Rendich Educational Scholarship:*** This endowed scholarship was established by the family of Grace Rendich Fox '87 in memory of her great-grandfather, Dr. Richard A. Rendich. Awards are given to assist men and women of the Roman Catholic faith, and particularly to men studying for the priesthood of the Roman Catholic Church.

***The John M. and Helen F. Robinson Scholarship:*** This scholarship was established by John M. Robinson, who attended the University and established LPS Industries, Inc. in Newark, New Jersey. The scholarship assists promising students in the Kania School of Management, with Scranton-area residents receiving first consideration.

***The Patrick and Marie C. Roche Scholarship:*** Out of their affection for the University and respect for the school's mission, Scranton natives Patrick and Marie Roche created this scholarship for eligible Lackawanna County students.

***The Mary Kay/Rochon Scholarship:*** This scholarship was endowed by John Rochon, former University Trustee, and the Mary Kay Foundation. It is awarded to female students with economic need**.**

***The Vincent '50 & Carole Ruane Memorial Scholarship*****:** Established in 2016 from a bequest from Carol Ruane, this scholarship is awarded with preference to students majoring in nursing who have financial need.

***The Rev. Joseph A. Rock, S.J., H'81 Scholarship:*** Created in memory of Fr. Rock, who served the University as professor of history, academic vice president and, in 1970, acting president, this scholarship assists students in the Academic Development Program.

***The Adrian E. Ross Memorial Scholarship:*** Endowed in 2009 by James Ross and the Ross Family Foundation in honor of James' father, Adrian, a well-known and respected community leader, this scholarship assists students who are residents of Lackawanna County.

***The Angelo and Rose Rotondaro & Dr. Louis Mitchell Memorial Scholarship:*** Alfred M. Rotondaro, Ph.D., '60 and his wife, Kathleen, established this scholarship in 2004 to honor his parents, Angelo and Rose, and University faculty member, Louis Mitchell. Awards are given to students with demonstrated need who will add diversity to the University campus.

***The Robert T. Ryder '46 Scholarship:*** Established in 1988 by John Diskin '67 and Coopers & Lybrand as a tribute to Robert Ryder, Vice President Emeritus for Finance/Treasurer, the scholarship assists local students from the city of Scranton or the borough of Dunmore.

***The Charles V. Sabatino Sr. Scholarship:*** This scholarship was established in 1990 by Frank C. Sabatino, Esq., '76 as a memorial to his father. It is based on merit and is awarded to a sophomore who is studying history.

***The Josephine Sarcinelli Memorial Scholarship:*** Med Science Laboratory in Scranton established this scholarship in 1983 to honor the memory of Josephine Sarcinelli, the office manager of the firm for many years. First preference is given to an incoming freshman from Lackawanna County with financial need majoring in medical technology, with second preference to students who reside in Northeastern Pennsylvania.

***The Steven Sawyer Memorial Research Award:*** This endowed award honors the memory of the son of Mary F. Engel, Ph.D., Associate Professor and Director of Fellowship Programs at the University. The awardee is selected by a committee of the

biology and chemistry faculty. Students who apply for this award must be active in the Health Professions Organization and be involved in research.

***The John J. Scott, Jr. '69 Memorial Scholarship:*** Mr. and Mrs. John J. Scott Sr. established this scholarship in memory of their son, a member of the Class of 1969. The scholarship is awarded to graduates of Scranton Preparatory School, based on financial need, academic merit and extracurricular activities.

***Scranton Alumni Club of NEPA Scholarship:*** Established in 2007 by the Scranton Alumni Club of Northeastern Pennsylvania, this scholarship is awarded to a student living within the geographic range of the club with financial need.

***The Scranton Club of New York Scholarship:*** This scholarship assists undergraduate students who reside in New York or New Jersey.

***The Scully Scholars Program:*** This program was established in 2004 to provide University of Scranton students with financial assistance to pursue summer internships in public policy and to honor the memory of longtime political science professor Timothy H. Scully.

***The Mary and Mariano Sebastianelli Memorial Scholarship:*** This need-based scholarship was established by Joseph T. Sebastianelli, Esq., '68 in memory of his parents to support Lackawanna County students who are enrolled in the Panuska College of Professional Studies.

***The Vincent A. Sedlak '37 Memorial Scholarship:*** A bequest from Vincent's estate established this scholarship to benefit students majoring in chemistry.

***The Judy Hashem Shea '85 Memorial Scholarship:*** This scholarship was established in 2020 by Judy's husband, Dan Shea '83, members of the Shea Family, and friends and family of Judy to honor her memory. This scholarship benefits graduate students with have financial need and are enrolled in the University's Physical Therapy Doctoral Program.

***The Charles '35 and Josephine Shander Scholarship:*** A trust established this scholarship which provides financial assistance to students from Lackawanna County's Mid-Valley area who have at least one parent of Polish, Slovak, Russian or Lithuanian descent.

***The Thomas J. Shevlin Jr. v40 and Dr. John F. Shevlin Memorial Scholarship:*** Established in 1989 through a bequest from Thomas J. Shevlin Jr. of Carbondale, this scholarship assists students in pre-medical studies.

***The Paul J. '47 and Virginia P. Shields Scholarship:*** This scholarship was established in 2002 by Paul and his wife, Virginia, to assist undergraduates with financial need.

***The Matthew and Mary Pesavento Sienkiewich Scholarship:*** Endowed through a bequest from Mary Sienkiewich, this is a need-based scholarship with first preference given to students from the borough of Dunmore. This scholarship is awarded to a sophomore.

***The Mary and Dana Silvon Memorial Scholarship:*** Joseph T. Doyle '69 and his wife, Judith, established this scholarship in memory of Mrs. Doyle's sister and niece. The scholarship is awarded to an incoming freshman of the Catholic faith from the Diocese of Scranton.

***The Edward M. Skovira, M.D. '53 Memorial Scholarship:*** Established by Dr. Edward Skovira '53, this merit scholarship benefits students from Northeastern Pennsylvania majoring in the health sciences.

***The Frederick B. Smoot '46 Memorial Scholarship:*** The late Frederick Smoot '46 created this need-based scholarship, with first preference given to students from the Lake Ariel area.

***The Sorbera Family Scholarship:*** This scholarship was established in 2019 by Greg & Christine Burke P'20 to honor their long-time friend, Joseph Sorbera Jr. P'08 and the Sorbera Family. This is a needs-based scholarship and is awarded with preference to students of Italian American descent.

***The Dr. Frank J. Sottile '69, G'72 Memorial Scholarship:*** Josephine Sottile provided a generous bequest to fund this scholarship in memory of her son, Frank, a University alumnus and adjunct faculty member as well as the head of the Math Department for the Scranton School District. Awards are made to education majors.

***The Specialty Group, Inc. Scholarship:*** This scholarship was established in 1988 for graduates of Dunmore High School and Holy Cross High School, formerly Bishop O'Hara High School, in Dunmore.

***The Edward J. Spitzer Scholarship:*** Established in 2004 with a bequest from Marian Spitzer Robling, this scholarship is awarded at Class Night to a graduating senior from The University of Scranton who will be attending a post-graduate program in the area of business administration.

***The David F. St. Ledger '56 Scholarship:*** Established by the St. Ledger family in 2019, this scholarship is awarded to undergraduate students graduating from Forest City Regional High School or Carbondale Area High School enrolling at the University as an education, history or political science major.

***The Francis J. Stahl '35 Memorial Scholarship:*** This scholarship was established through the will of Mary T. Stahl and her husband, Francis. The scholarship assists local students with financial need.

**The Craig J. Steel '99 Scholarship:** Established in 2009 by Craig J. Steel '99, this scholarship is awarded to an undergraduate student based on financial need.

***The Edward Sr. and Rosalie Steinmetz Scholarship:*** Established in 2014 by Edward '81 and David '83 Steinmetz in memory of their parents, this scholarship is awarded to education majors from Lackawanna County with preference given to graduates of Catholic high schools.

***The Stanley E. '61 and Elaine L. Stettz Scholarship:*** This merit-based scholarship is awarded to a junior accounting major enrolled in the Kania School of Management. Selection is based on overall GPA.

***The Armond and Betty Strutin Scholarship:*** This scholarship, created through the generosity of Armond and Betty Strutin, is awarded to students with financial need.

***The Tom and Salsey Sullivan Scholarship:*** In 2000, Mr. and Mrs. Sullivan, parents of Thomas J. Sullivan Jr. '97, established this scholarship to be awarded based on financial need.

***The Amelia Suraci Scholarship:*** This scholarship was established in 1977 by the late Frank Suraci, chairman of Parodi Cigar Corporation, to honor his wife, Amelia. After Mr. Suraci's death, contributions from the Suraci and Keating families were added to the endowment. Each year the scholarship benefits students with financial need.

***The John P. '61 and Jean Blackledge Sweeney Family Business Scholarship:*** This scholarship was endowed in 2005 by John P. Sweeney '61 and his wife, Jean Blackledge Sweeney and is awarded to a student enrolled in the Kania School of Management.

***The John P. '61 and Jean Blackledge Sweeney Family Nursing Scholarship:*** This scholarship was endowed in 2005 by John P. Sweeney '61 and his wife, Jean Blackledge Sweeney and is awarded to a nursing student enrolled in the Panuska College of Professional Studies.

***The John E. Swift, M.D., '22 and Margaret Gurrell Swift Memorial Scholarship:*** This scholarship is awarded to students based upon financial need and/or academic achievement.

***The Robert J. '58 and Joan J. Sylvester Scholarship:*** Trustee Emeritus Arthur J. Kania, Esq., '53 and his wife, Angela Volpe Kania, established this scholarship to honor Mr. and Mrs. Sylvester. Mr. Sylvester, Vice President Emeritus for Institutional Advancement, retired in 2001 after serving 18 years. The scholarship is awarded to students from Lackawanna County with first consideration given to graduates of Abington Heights, Scranton Preparatory and Valley View high schools.

***The Tate Family Scholarship:*** Established in 2011 by Thomas N. Tate '56, this scholarship is awarded to students enrolled in the pre-medical program who reside in the Mid-Valley area of Northeastern Pennsylvania and have demonstrated need.

***The Times-Shamrock Communications Scholarship:*** This scholarship was established by the Lynett and Haggerty families to provide support to current employees of the Times-Shamrock Group and their children.

***The TRL Associates Scholarship:*** This scholarship is awarded to past employees, or qualified children of past employees of TRL, Inc. Since TRL, Inc. is no longer in business, any employee, or child of an employee of a company that was affiliated with TRL, Inc. is also eligible to apply. The companies affiliated with TRL are: Joseph Notarianni & Co.; Foley, Cognetti, Comerford, Cimini & Cummins; Related Cognetti Enterprises, and; Cognetti and Conaboy. Recipients must have demonstrated financial need.

***The UNICO Scholarship:*** The UNICO Foundation of the Scranton Chapter of UNICO National, a philanthropic group, established this scholarship in 1980 to offer financial assistance to students with financial need.

***The United Gilsonite Laboratories Scholarship:*** UGL established this scholarship to provide financial aid to their employees and their eligible children or to students from Lackawanna County with financial need.

***The Guy T. Valvano '50 Memorial Scholarship:*** This scholarship was established by John Valvano in memory of his brother, Guy T. Valvano '50 to provide financial assistance to an undergraduate nursing student.

***The William and Concetta Viglione Scholarship:*** This scholarship was established in 2004 by Frank C. Longo, Esq. '49, in memory of his aunt and uncle, for students who are studying in the Department of Foreign Languages, with preference given to students studying Romance languages.

***The Charles J. Volpe Sr. '61 Memorial Scholarship:*** Established in 1988 in memory of Charles J. Volpe, a well-respected Scranton businessman and public servant, this scholarship provides assistance to students entering their senior year and majoring in history or political science.

***The Mary and Patrick Volpe Scholarship:*** In honor of her parents, Angela Volpe Kania established this scholarship for graduates of Old Forge High School who are enrolled in the Kania School of Management.

***The Paul L. Waleff Memorial Scholarship:*** This scholarship was established by the parents of Paul L. Waleff, who died in 1984 while a student at The University of Scranton. The scholarship is awarded to a junior or senior who plans a career of service to persons with special needs.

***The Leo J. Walsh, Ph.D., Memorial Scholarship:*** Dr. Walsh, an Old Forge native and University of Scranton adjunct faculty member after his retirement from Queens College, provided a generous bequest to endow this need-based scholarship awarded to students from Northeastern Pennsylvania.

***The Weinberger Family Scholarship:*** This scholarship was established by University Trustee, Jerry Weinberger, Esq., in 2002 for students from Lackawanna County with financial need.

***The Weiss Family Scholarship:*** Joseph F. Weiss, Ph.D., '61 established this scholarship in 2011 to honor the memory of members of the Weiss Family of Moosic, Pennsylvania. Financial assistance is provided to students pursuing a B.S. degree in chemistry or biochemistry, research track, with American Chemical Society accreditation.

***The Anne L. Wittman G'67 Scholarship:*** This scholarship, established by a bequest from the estate of Anne L. Wittman G'67, benefits students with financial need.

***The Gene and Florian ZaBach Scholarship:*** Endowed with a generous bequest, this scholarship is awarded to undergraduate students pursuing a degree in communication. Florian was a world famous violinist and pops concert artist. His wife, the former Gene Brislin, was a columnist and feature writer for The Scranton Times and The Sunday Times (now The Times-Tribune).

***The William Zahler Scholarship:*** In 1986, Mr. and Mrs. William P. Zahler of Mayfield Heights, Ohio, established this scholarship in memory of their son William Zahler Jr., an associate professor of English at the University, to assist students with financial need.

***The Joseph Zandarski, Ph.D. '51 Memorial Scholarship***: Established in 2010 by Nan and Grace Zandarski to honor the memory of their husband and father, Joseph, longtime University of Scranton accounting professor, this scholarship benefits local students majoring in any of the University's business disciplines.

## Annual Scholarships

***The Alpha Sigma Nu Scholarship:*** This annual scholarship provided by AΣN, the honor society of Jesuit institutions of higher education, assists students who have demonstrated outstanding academic achievement.

***Annual Scholarship for Students from Africa established by Rebecca Haggerty, MA, MS, SPHR,*** G'09: This scholarship benefits a student from Africa with high financial need.

***The Timothy P. Conniff '92 Annual Scholarship*****:** Established by Timothy P. Conniff '92 in 2016, this annual scholarship is awarded to undergraduate students from the Kania School of Management.

***The Jerome P. '75 & Lynn DeSanto '80 & Susan J. Falbo Annual Scholarship in memory of Nancy Jean Bartholomay:*** This scholarship benefits a local or regional undergraduate sophomore student with preference given to a student from a single parent home and/or an interest in domestic violence advocacy.

***The Koch-Conley American Legion Scholarship:*** Established in 1985 by agreement with the American Legion, scholarships are provided on the basis of academic achievement and financial need. First preference is given to children, grandchildren, nieces and nephews of the members of the Koch-Conley American Legion Post 121. Thereafter, family members of other Pennsylvania American Legion Post members may be considered.

***The Military Science II Leadership Excellence Award*****:** Established in 2012 by Daniel J. Dunn '72, this award is presented annually to a rising junior military science II cadet who demonstrates academic achievement, leadership and service commitment.

***The Nellis-McAllister Kiwanis Scholarship:*** Established in 2011 by Joseph A. Nellis '85 through the Scranton Kiwanis Club to honor his parents, William J. '55 and Ann McAllister Nellis, this need- and merit-based scholarship, combined with University matching funds, is awarded to one incoming freshman who lives and attended high school in Lackawanna County. The student must have demonstrated a commitment to service and volunteer work. Students must submit an essay describing their qualifications for this prestigious award along with the application and provide a letter of recommendation from a high school teacher/counselor, high school transcript and standardized test scores to the Office of Undergraduate Admissions. The scholarship is renewed annually over a total of four years provided the scholar meets the scholarship criteria and academic requirements. Upon the graduation of the Nellis-McAllister Kiwanis Scholar, a new freshman recipient is selected.

***The Northeast Chapter of the Pennsylvania Society of Public Accountants Scholarship:*** This award is administered through the Northeast Chapter of the Pennsylvania Society of Public Accountants and is given to a senior accounting major from Lackawanna, Luzerne, Susquehanna, Pike, Wayne or Monroe Counties.

***The Pennsylvania Governor's Conference for Women Scholarship:*** Established in 2006 for women residing in Pennsylvania, the scholarship is awarded to women who have demonstrated financial need, overcome significant personal challenges, exhibited exemplary community service work, and demonstrated high academic performance.

***The William P. Rinaldi '67 Memorial Scholarship:*** This fund was established in memory of the late William P. Rinaldi, Lackawanna County Clerk of Judicial Records, by his mother, Rose. It benefits a student from Lackawanna County majoring in history or education.

***Purple Club Scholarships:*** Noteworthy among gifts to University of Scranton students are the amounts contributed annually by the Purple Club of Scranton. Since its founding in 1933, the Purple Club has provided special financial support to deserving and qualified students.

***The Gerard Roche '53 Annual Scholarship*:** Established by Heidrick and Struggles to recognize Gerard Roche's 50 years of service to the company, this scholarship benefits undergraduate sophomore students with financial need.

***The Royal Fund Financial Aid Textbook Award:*** This is a need-based award given to incoming freshman to assist with the purchase of textbooks. Funds for this award are raised almost entirely by other students.

***The Rich and Michele Russo Annual Scholarship:*** Established in 2018 to honor Rev. Scott R. Pilarz, S.J. on the occasion of his installation as 27th President of The University of Scranton, this scholarship is awarded to an undergraduate student with financial need.

***The Dr. Bernard Shair & Dr. Todd Angelo Memorial Scholarships***: These scholarships, established by family, friends, and colleagues of Dr. Shair and Dr. Angelo through the Scranton Area Foundation, is presented annually to graduating seniors of The University of Scranton who has been accepted at an accredited dental school.

***The Edward J. '81 & Barbara A. Steinmetz Scholarship:*** This scholarship is awarded to a sophomore student with financial need. Preference is given to nursing majors or students enrolled in the Kania School of Management.

***The Thomas P. White Scholarship:*** Mrs. Ilene White G'77,'92 established this scholarship to honor the memory of her husband, Thomas. It is awarded to an education major who is a "non-traditional" student, such as a transfer student or an individual returning to school after an absence.

***The Judith Ann Yokaitis-Skutnik '79 Annual Scholarship:*** This scholarship was established to honor the memory of Judith Ann-Yokaitis-Skutnik '79 and is awarded annually to students with financial need. Preference is given to students from Scranton or Lackawanna County.

## Biennial Scholarship

***The Dr. John H. Corcoran '21 Scholarship:*** Biennially, the Society of the Friendly Sons of St. Patrick of Lackawanna County provides funds for a University of Scranton student or students to enjoy the benefits of studying for one or two semesters at a university in Ireland.

## Endowed Academic Positions

***The Alperin Chair in Business Administration:*** This academic chair was endowed in 1980 through the gifts of three Scranton businessmen, Joel, Irwin and Myer Alperin, and their families. The late Joel Mitchell Alperin was the originator and the principal sponsor of the chair and its endowment. Income from the Alperin brothers' gift is applied to the salary of a professor in the Kania School of Management.

***The William and Elizabeth Burkavage Fellowship in Business Ethics and Social Responsibility in Memory of William & Elizabeth Burkavage:*** Established in 2009 by local business owner Bill Burkavage and his wife, Judith, this endowment provides funds to assist University faculty in new research on issues of sustainability, social responsibility and business ethics.

***The Chair in Judaic Studies:*** Income from an endowment established by alumni and friends of the University makes it possible for the University to invite, for short visits to Scranton, Judaic scholars from Israel or other parts of the world, for public lectures and meetings with students and faculty.

***John J. Krafsig, Sr. Endowed Professorship in History:*** This academic professorship was established in 2016 by John J. Krafsig, Jr., Esq.'49 in memory of his father. Income from this endowment may be used to augment a professor's salary or support a professor's scholarly and research activities.

***The Rev. John J. Long, S.J., Fund:*** Contributions to this fund were made by friends of the Rev. John J. Long, S.J., president of the University (1953 to 1963) on the occasion of his Golden Jubilee in the Society of Jesus and later as a memorial after his death in 1971. The endowment supports projects and programs concerned with the spiritual growth of students.

***The Robert L. McDevitt, K.S.G., K.C.H.S. and Catherine H. McDevitt, L.C.H.S. Endowed Chair in Philosophy in Honor of the late Rev. Dexter Hanley, S.J. and The Robert L. McDevitt, K.S.G., K.C.H.S. and Catherine H. McDevitt, L.C.H.S. Endowed Chair in Theology in Honor of the late Rev. Dexter Hanley, S.J.:*** Robert McDevitt established these endowments for teaching positions in the University's Philosophy and Theology Departments through an estate gift received in 2009 to honor the memory of Rev. Hanley, his dear friend and former University of Scranton President.

***The NEH Endowment:*** This endowment was established through a challenge grant from the National Endowment for the Humanities to support the acquisition of materials for the humanities collection in the Weinberg Memorial Library.

***The Noble C. and Jule Quandel Professorship in Entrepreneurship:*** Established in 2011 by Noble C. and Jule Quandel, this professorship was created to recognize and support distinguished faculty in the Kania School of Management whose dedication furthers entrepreneurship education and supports the economic development of Northeast Pennsylvania and beyond.

# Life on Campus

The University of Scranton is a devoted to the Jesuit principle of *cura personalis*, care for the person with respect to their own uniqueness. The University acknowledges the integral role that campus life and co-curricular engagement have in ensuring a transformational student learning experience. For this reason, the University encourages students to immerse themselves in learning both inside and outside of the classroom. The University offers a range of engagement opportunities and support services including, but not limited to, leadership development, faith formation and reflection, health and wellness services and education, and career development.

## Student Life

The Division of Student Life, inspired by our Catholic and Jesuit identity, challenges students to recognize their unique gifts and talents, reach beyond their perceived capabilities, develop a restless desire for excellence grounded in gratitude, and discover and embrace who they are called to be.

Committed to forming socially responsible, engaged, and reflective men and women, the Division facilitates transformative learning experiences aimed at advancing students' understanding of and lifelong commitment to:

- developing adult faith and spirituality,
- fostering a healthy and balanced lifestyle,
- cultivating a sense of personal responsibility and accountability,
- honoring diverse thoughts, perspectives and cultures,
- integrating knowledge into lived experiences,
- engaging in service for and with others, and
- discerning one's vocation and direction.

## Residence Life

The University affords students the opportunity to reside in secure, comfortable living spaces that foster student learning. First-year residential students live with their peers in traditional halls while upperclass students select from a range of housing options that include suite-style halls with semi-private baths, University houses, and townhouse apartments. The University also provides apartment-style housing for graduate students.

Each year, the University offers several Residential Learning Communities (RLCs) coordinated by the Office of Residence Life, in order to best facilitate learning by integrating students' in class and co-curricular experiences. While RLCs help students to connect classroom learning with their residential experience, all residential students are encouraged to connect their academic study with other experiences and learning opportunities. Students are expected to actively participate in their residential communities, respecting the rights of other community members while embracing the responsibilities associated with positive community building. This includes, but is not limited to, ensuring healthy decisions regarding substance use, stress and time management, relationships, and faith exploration.

The Office of Residence Life, located on the first floor of Condron Hall, is open Monday through Friday from 8:30 a.m. to 4:30 p.m. The Office of Residence Life can be reached via phone at (570) 941-6226. Additional information is available online at www.scranton.edu/residencelife.

For additional information on room and board, see "Tuition and Fees."

## *Select Residence Life Policies and Guidelines*

The University of Scranton requires all first- and second-year undergraduate students to live in campus housing. Exceptions to this policy are limited to students who reside with a parent, legal guardian or spouse; are 21 years of age or older; or present other documented extenuating circumstances. The Admissions Office will determine a student's residency status upon admission to the University. Students may apply to live off campus for their junior year but must be approved by the Office of Residence Life and the Division of Student Life.

The University of Scranton guarantees on campus housing to undergraduate students for four consecutive years. Accordingly, if an undergraduate student has never lived off campus, he or she retains that guarantee. If an undergraduate student has moved off campus, he or she no longer has the guarantee and can only be housed on a space available basis. This guarantee applies to all housing offered through the housing selection process.

The University provides in-room access to the campus communication network (cable and internet) in all residence hall rooms and University houses at no additional charge. Students residing in non-University, off-campus housing (within a one-mile aerial radius of campus) can also have access to campus communication services. For more information regarding these communication services, contact Information Technology, Alumni Memorial Hall, Room 102, or call (570) 941-4357.

## *Contractual Obligations*

Once enrolled in a room and/or board plan, the student is obligated to that plan for the remainder of the academic year including Intersession unless no longer enrolled at the University.

## *Intersession*

Resident students taking one or more classes during Intersession may live in University housing and, if applicable, continue their meal-plan program if they were enrolled for room and/or board for the preceding fall semester. As noted above, additional fees do apply for meals. For reasons of safety and security, those not enrolled in classes during Intersession are not permitted to reside in University housing during this time. Student athletes that are in-season, approved by the Office of Residence Life and the Athletics Department, may live in their rooms during Intersession without taking classes.

## *Dining Services*

Students have a choice of six cost-effective meal plans that provide unlimited, 14 or 10 meals per week.

- The unlimited meal plan provides an unlimited number of meals per day in our Fresh Food Company Monday through Friday, with brunch and dinner on Saturday and Sunday.
- The 14-meal plan provides any combination of 14 meals per week, not to exceed 3 meal swipes per day.
- The 10-meal plan offers students any combination of 10 meals per week, not to exceed 3 meal swipes per day.
- The unlimited plus, 14-meal plus and 10-meal plus plans offer students the same amenities as the regular meal plans with the addition of more flex dollars.

All first-year students living in University housing must participate in the unlimited or unlimited plus meals plan during their entire first year. Upperclass students living in Redington, Condron and Gavigan Halls must participate in one of the six meal plans. Meal plan participation is optional for upperclass residents of any on-campus apartment or one of the University houses, as well as for students residing off campus.

# Off-Campus and Commuter Students

The University makes special efforts to ensure local students who commute from home and upperclass students who live off-campus have equitable access to academic and co-curricular programs, services, and opportunities. The Office of Off-Campus and Commuter Student Life (OCCSL) serves as a resource providing information and developing initiatives that enrich both the off-campus living and commuter experience.

In collaboration with the student-led Commuter Student Association (CSA) and Off-Campus Ambassadors, OCCSL hosts a variety of programs designed to address the unique challenges of our non-residential student population. Additionally, the Undergraduate Student Government has both commuter and off-campus senators who represent their respective student constituency, ensuring issues and concerns are brought forth to the student senate governing body.

The Office of Off-Campus and Commuter Student Life is located in room 205C in the DeNaples Center. The office hours are 8:30 a.m. – 4:30 p.m. Monday through Friday. More information is available on OCCSL's website, http://www.scranton.edu/occsl or by calling (570) 941-6292.

# The Gerard R. Roche Center for Career Development

The Roche Center for Career Development provides comprehensive services and programs to address the career related needs of all students. With a focus on experiential learning and preparation, the career team delivers information through individual appointments, workshops, industry-specific programs, and classroom presentations. Relevant topics include: career decision making, major choice, resume/cover letter writing, job search, interview preparation, networking, and industry expectations.

Through a strong network of alumni and industry professionals, the Roche Center for Career Development continually seeks out new internship and full-time employment opportunities for students. In addition to job and internship search practices, students receive advice and coaching to prepare for a variety of post-graduation plans, including: graduate school, long-term or military service, entrepreneurship, etc.

The Roche Center for Career Development is located in Ciszek Hall on Mulberry Street and is open from 8:30 a.m. to 4:30 p.m. Monday through Friday. Evening hours are arranged on an individual basis. The phone number is (570) 941-7640. Additional information is available online at www.scranton.edu/careers.

# The Cross Cultural Centers

The Cross Cultural Centers (Multicultural Center & Jane Kopas Women's Center) are dedicated to creating and sustaining a campus culture that aligns with the University's commitment to diversity, equity, and intercultural understanding. The Jane Kopas Women's Center provides a safe, comfortable gathering place for discussion about the connection between feminist theory and practice. The Multicultural Center offers a space for all students to explore their cultural identities and develop multicultural competence. The Cross Cultural Centers offer work study, volunteer, intern, and service learning opportunities.

## Multicultural Center

The Multicultural Center offers programs that are intentionally designed to foster safe, constructive, and transformational learning. Students are challenged to engage with, respect, and honor diversity in all forms as part of their daily interactions while developing multicultural competence. The Multicultural Center encourages members of the University community to be cultural allies and supporters of social justice and equality.

The Multicultural Center, located in room 205G of the DeNaples Campus Center. Additional information can be obtained by calling (570) 941-5904 or visiting www.scranton.edu/Multicultural.

## Jane Kopas Women's Center

The Jane Kopas Women's Center (JKWC) fosters a campus community in which people of all genders can live in a climate of respect, understanding, and equality, and where women are supported to reach their fullest potential. The JKWC offers students opportunities to engage in and explore issues of gender equity, diversity and social justice.

JKWC programs are largely focused on educating students about gender equity issues including, but not limited to, anti-violence advocacy, body integrity awareness, and women's leadership and skill. The JKWC offers resources for academic courses, special projects and personal enrichment including books, periodicals, and films.

Interested students are encouraged to contact the JKWC by calling (570) 941-6194 or visiting 205F of the DeNaples Campus Center. Additional information can be found at www.scranton.edu/JKWC.

# Office of Student Conduct

As a Catholic and Jesuit University, The University of Scranton challenges students to lead faith-filled lives in support of the common good. To this end, students are expected to comply with behavioral standards that promote respect for self, others, and

community. The Community Standards are set forth in the University's Student Code of Conduct, which is published annually in the *Student Handbook*. (www.scranton.edu/studenthandbook)

The Office of Student Conduct educates students regarding their behavioral responsibilities as members of the University community and ensures that the process to adjudicate matters of misconduct is consistent and fair-minded. For more information about the University's student conduct process, please visit www.scranton.edu/studentconduct or call (570) 941-7680.

# Counseling Center

The Counseling Center provides a confidential, safe, comfortable, and caring place for students. Sometimes students have personal concerns they might wish to discuss with a member of the staff. These concerns might be related to stress, relationships, transition, trauma, development, school, self-concept, family dynamics, etc. Other concerns may be alcohol and other drug use/abuse, anxiety, depression, eating disorders, learning disabilities/ADHD. Finding ways to identify and cope with these concerns can make a difference in the life of a college student.

The Counseling Center is staffed by licensed professionals including psychologists, counselors, and social workers who are available to help students make the most of their years at the University. We also provide referrals for psychiatric evaluations and consultation.

The Counseling Center, located in O'Hara Hall, sixth floor, is open from 8:30 a.m. to 4:30 p.m., Monday through Friday. The Counseling Center does not provide online therapy services. After-hours emergency crisis consultation is available on a 24-hour basis from August through May while classes are in session by contacting the University Police Department at (570) 941-7777. For information only, our web address is www.scranton.edu/counseling. Due to the fact that email communication is not confidential, appointments need to be made by calling the Counseling Center at (570) 941-7620 or by stopping by the Center in O'Hara Hall, sixth floor.

# Student Health Services

Good health is an essential part of academic and personal success in college. Student Health Services is committed to assisting students in the acquisition of the knowledge, attitudes, skills and behaviors necessary to attain and maintain an optimum level of personal wellness.

Student Health Services is located on the corner of North Webster Avenue and Mulberry Street and is open from 8:30 a.m. until 5:00 p.m. Monday through Thursday and 8:30 a.m. until 4:30 p.m. on Friday. All services are confidential and include unlimited medical visits. Student Health Services is staffed by three full-time nurse practitioners and one full-time registered nurse. A consulting physician sees patients on a part-time basis. Nurse practitioner appointments are available daily. Appointments can be made online by accessing the online student health portal under the student tab on My Scranton or by calling the office. A limited number of daily walk-in appointments are available.

Cooperative relationships with community health care providers such as laboratories, pharmacies, hospitals and medical specialists complement the care offered on campus. University fees cover almost all medical services on campus. A limited formulary of prescription medication is available to students at a reduced cost. Care by community providers such as laboratory, x-ray, specialists, emergency room visits or hospitalization are subject to the student's health insurance or private payment.

For more information regarding forms and immunization requirements please visit www.scranton.edu/studenthealthservices.

## Center for Health Education and Wellness

The Center for Education and Wellness (CHEW) promotes a healthier campus community through prevention programs and educational activities. The CHEW crew of health education professionals, student workers, and peer health educators provide dynamic work-shops, community awareness events, and individualized guidance to help students make healthy decisions and live balanced lives.

CHEW professional staff design, deliver and evaluate wellness and health programs, train student peer educators, and work with other University departments on programming and policies to improve the well-being of students, colleagues and the community. Through myriad of programs and campus-wide activities, CHEW staff encourages students to assess their individual health and to create lifestyles that support wellness in all its dimensions.

CHEW wants you! CHEW seeks students interested in learning about health and wellness while making a difference on campus to serve as Peer Health Educators. Leaders among the student body, CHEW Peer Health Educators gain not only valuable health information, but useful presentation skills and leadership ability all while having the option of earning service-learning credit. For more information, stop by CHEW or apply online! Check out all that CHEW has to offer you.

The Center for Health Education and Wellness, located in room 205K of the DeNaples Campus Center, is open Monday through Friday from 8:30 a.m. to 4:30 p.m. The telephone number is (570) 941-4253. (www.scranton.edu/chew)

# Center for Student Engagement

The Center for Student Engagement encompasses the areas of student programming, student clubs and organizations, new student orientation, and leadership development initiatives. The Center for Student Engagement offers students a streamlined way to meaningfully engage in co-curricular opportunities at The University of Scranton.

Through various collaborative partnerships throughout the University, the goals of the Center are: to provide support for transfer and first year students and their families; to offer exceptional educational and social programming to the campus community; to support and challenge students to become more fully involved in clubs and organizations; and to provide a wide array of leadership development opportunities. Meeting these goals will uniquely allow us to assist in the strategic plan of challenging, empowering and engaging our students through a commitment to be leaders for change.

Programs and services offered by The Center for Student Engagement include:

- New Student Orientation and Fall Welcome programs assisting with the transition into life at the University for first year and transfer students.
- Advisement of The University of Scranton's Programming Board (USPB).
- The Leadership Development Program including the Scranton Emerging Leaders Program, the Ignite Leadership Conference, Impact! Retreat, Club Transition Summit, and the Leadership Academy.
- Club support such as assistance with programming, budget management, leadership development, officer information and advisor support.

## *Orientation and Fall Welcome*

New Student Orientation and Fall Welcome assists all new students, freshmen and transfers, with their transition to life at the University. The program is the link between the Admission process and students' arrival at the University for their first semester. The emphasis is on class scheduling, academic and social integration and providing a natural connection to the strong sense of community at the University.

## *Leadership Development Program*

The University of Scranton leadership development program's mission is to facilitate, educate, and motivate students to seek out opportunities to make a significant difference when serving their current and future communities. Through formal organization participation, leadership certificate programs, and various workshops and activities, we challenge students to develop skills, self-reflect, and make social change through action. More information is available online at http://www.scranton.edu/leadership.

## *Student Government*

Student Government is an organization charged with the task of maintaining and improving all aspects of student life to ensure a productive academic and social environment for the student body. Its familiar faces and widespread involvement give the campus life and energy. Its leadership consists of elected student officers. The Student Government Office is located in the Student Forum (205 DeNaples Campus Center).

## *Clubs and Organizations*

The University of Scranton encourages students to participate in activities, clubs, and organizations supported by the Center for Student Engagement. These clubs and organizations encourage students to become immersed in the campus community. Such activities allow members to develop their leadership skills while meeting the goals of the organization and its members. A complete list of campus clubs and organizations is available on the web at www.scranton.edu/clubs.

The Center for Student Engagement is located in room 205 of the DeNaples Campus Center is open Monday through Friday from 8:30 a.m. to 4:30 p.m. The telephone number is (570) 941-6233. (www.scranton.edu/cse)

# Intercollegiate Athletics

The University of Scranton is a Division III member of the National Collegiate Athletic Association (NCAA). As such, it is prohibited by NCAA rules to offer any type of financial assistance based on athletic ability.

Since 2006, the University has been a proud member of the Landmark Conference, which is comprised of the following institutions: The Catholic University of America (Washington, D.C.), Drew University (Madison, N.J.), Elizabethtown College (Elizabethtown, Pa.), Goucher College (Baltimore, Md.), Juniata College (Huntingdon, Pa.), Moravian College (Bethlehem, Pa.) and Susquehanna University (Selinsgrove, Pa.).

The University consistently ranks in the top half of the Landmark in the Presidents Trophy standings. The Trophy was created to recognize the best overall athletics program. It is based on a formula that rewards institutions for regular season conference standings as well as results in Landmark postseason competition. Scranton has finished runner-up five times (2008, 2009, 2011, 2017, 2018) and third twice (2009, 2015).

Of the 23 sports that the University sponsors, 22 compete in the Landmark Conference. The wrestling team competes as an independent and has an opportunity to advance to the NCAA Division III championships through its participation in an NCAA regional competition.

The athletics office is located in the John Long Center and is open Monday through Friday from 8:30 a.m. to 4:30 p.m. Additional information is available online at http://athletics.scranton.edu.

| Men's | Women's |
|---|---|
| Baseball | Basketball |
| Basketball | Cross Country |
| Cross Country | Field Hockey |
| Golf | Golf |
| Lacrosse | Lacrosse |
| Soccer | Soccer |
| Swimming & Diving | Softball |
| Tennis | Swimming & Diving |
| Track & Field - Indoor | Tennis |
| Track & Field - Outdoor | Track & Field – Indoor |
| Wrestling | Track & Field – Outdoor |
| | Volleyball |

The University has established a tradition of excellence on both the national and conference level. Scranton has won three national titles, two in men's basketball (1976, 1983) and one in women's basketball (1985), while the men's soccer team has advanced to the semifinals four times, including championship match appearances in 1980 and 1981. The women's soccer team has played in the NCAA tournament 19 times, including quarterfinal berths in 2001 and 2003, while eight other teams – men's cross-country (1975), men's golf (1974), field hockey (1997, 2019), men's lacrosse (2011), softball (1982, 1983, 2019), women's volleyball (1999, 2001, 2003, 2005), women's lacrosse (2003, 2004, 2019) and women's tennis (2012, 2013, 2014, 2018) – have competed in NCAA championships.

In 13 seasons in the Landmark Conference, Scranton has won 34 titles: men's basketball (7), women's soccer (7), women's swimming (3), women's basketball (7), women's tennis (4), men's lacrosse (1), men's soccer (2), women's cross country (1), field hockey (1) and softball (1).

In its previous affiliation with the Middle Atlantic Conferences, the University captured 82 championships. The men's and women's basketball teams led the way with 17 each, followed by women's soccer (13), men's soccer (11), women's tennis (10), softball (7), women's volleyball (5), women's swimming (3), field hockey (1) and baseball (1).

The University has also produced its share of All-Americans. Since 1959, 70 student-athletes have earned this prestigious honor. The women's basketball program has produced 23 All-Americans, while men's soccer is next with 11, followed by men's basketball (10), women's soccer (9), men's lacrosse (4), women's swimming (2), wrestling (2), women's volleyball (2), women's lacrosse (2), softball (2), baseball (1), field hockey (1), men's golf (1), men's cross-country (1), and women's track & field (1).

Excellence in all athletic venues has also translated to success in the classroom. The University has produced 38 Academic All-Americans and 17 student-athletes have earned prestigious NCAA postgraduate scholarships.

## Recreational Sports

The Byron Recreation Complex is located at the top of campus, adjacent to the John Long Center. The complex contains three multi-purpose courts with a 1/10 mile track, three racquetball courts, a six-lane swimming pool, a dance aerobics room, a multipurpose room, a spin studio, locker rooms, steam rooms and saunas. A 14,000 sq. ft. fitness center is located across campus on the first floor of Pilarz Hall. This stunning facility is home to 50+ pieces of cardio equipment, most equipped with individual cardio theatre, as well as 20+ pieces of Cybex VR3 selectorized weight machines, a multi-station cross fit station and a state-of-the-art free weight area.

Housed within the Byron Complex, the Recreational Sports Department seeks to provide a comprehensive program of sports activities designed to appeal to the diverse needs and interests of the University community. Intramural leagues begin approximately the third week of each semester and include basketball, dodgeball, volleyball, softball, flag football, walleyball, whiffleball, ultimate frisbee, soccer, tennis, racquetball, badminton, table tennis, kickball, corn hole, and kan jam.

In addition to league programs there are also many opportunities for individual recreation. Aerobics classes are conducted on a weekly schedule and may be attended on a drop-in basis. The fitness center is open more than 100 hours each week and there are open swim hours in the pool regularly. Whether students are looking for a competitive game of basketball, a high-impact aerobics class, or just a leisurely swim in the pool, the Recreational Sports Department can meet their needs. For more information contact the Rec office at (570) 941-6203.

# Student Publications

The University has three student publications with which students can become involved. *The Aquinas* is the University's monthly campus magazine. *Esprit*, the University's literary magazine, is produced once each semester. Finally, the yearbook, the *Windhover*, is produced annually. Information on how to become involved with student publications is available online at www.scranton.edu/spb.

# Performance Music

The University of Scranton Bands, Choirs and String Ensembles offer high-quality instrumental and choral performing ensemble opportunities in a variety of formats ranging from very large ensembles to small ensemble and solo performing opportunities. Participation is open to any and all interested University students (as well as alumni, faculty, staff, and administration) with no individual audition requirement nor enrollment or membership fee, in the finest liberal arts tradition.

In addition to performances by the bands, choirs, and string ensembles, the department presents a series of concert and recital performances by outstanding and renowned musicians representing a variety of musical genres. In some instances, guest artists perform as soloists with the student ensembles, and guest artist programming is closely co-ordinated with the student ensembles to offer special masterclasses, workshops and lectures by our visiting artists. All performances are free of charge, open to the public, and take place in the magnificently restored concert hall of the Houlihan-McLean Center, which features excellent Steinway B & L performance pianos, and a fully restored Austin Opus 301 symphonic organ.

Our tradition of guest artists and clinicians has brought to our student musicians, our campus and our community the joyful experience of performing with and hearing a very long list of musical masters, among them Wess "WarmDaddy" Anderson; Kyle Athayde; David Lao Ball; Eddie Barbash; Joseph Boga; Janet Sora Chung; Jeffrey and Lauren Curnow; Michael Davis; Aaron Diehl; Dominick Farinacci; Marion Felder; Wycliffe Gordon; Victor Goines; Mark Gould; Carlos Henriquez; Riza Hequibal; Frederick Hohman; Caleb and Amanda Hudson; T. Terry James; Rob Kapilow; Mark Kosower; Jennifer Krupa; Brandon Lee; Joanne Lessner; Wynton Marsalis; Kako Miura; Thomas Murray; Ted Nash; Jee-Won Oh; Sam Pilafian; Leigh Pilzer; Marcus Printup; Jay Rattman; Eric Reed; Joshua Rosenblum; Loren Schoenberg; Jumaane Smith; Tim Smith; Erica von Kleist; Ron Stabinsky; Robert Starer; Andres Tarantiles; Warren Vache; Frank Vignola; Lawrence Wolfe; Pamela Wolfe; Greg Zelek; The New York Trumpet Ensemble; "Travelin' Light"; David Ostwald's Gully Low Jazz Band; The National Jazz Museum in Harlem

All-Stars; DIVA Jazz Orchestra; The New Wonders; and members of the New York, Philadelphia, Boston, Minnesota, Cleveland and Dallas Symphony Orchestras, The Jazz at Lincoln Center Orchestra, The Empire Brass Quintet, and The Canadian Brass; and many others. Our long and productive relationship with our late composer-in-residence, Vaclav Nelhybel, continues to be honored through close cooperation between the University and the Nelhybel Estate in the establishment of "The Nelhybel Collection."

Our annual World Premiere Composition Series performance, the only series of its kind in the nation, has received honor and acclaim from artists throughout the world. Since 1984 the series has provided our students with opportunities to work and interact with internationally renowned composers and conductors, and has made significant contributions to the wind and choral repertoires. Our programs also include "The Nelhybel Collection", which contains the manuscripts and materials of our late composer in residence Vaclav Nelhybel; The Scranton Brass Seminar, an intensive summer skill building program for brass players and teachers; and The Scranton Brass Orchestra, a fully professional ensemble which offers two to four performances during breaks in the academic year.

Hundreds of students participate in the ensembles every year and are achieving their performance goals in the musical ensemble of their choice.

For more information on any of our Performance Music offerings, please visit our website at or contact Cheryl Y. Boga, Conductor and Director of Performance Music.
Web: scranton.edu/music
Email: music@scranton.edu.
Facebook: PerformanceMusicatTheUniversityofScranton
Twitter & Instagram: UofSMusic
Phone: (570) 941-7624

# Radio

More than 80 students each year gain valuable experience while operating WUSR, 99.5 FM, which is broadcast at 300 watts with a coverage area of 700 square miles. The broadcast region of the Scranton/Wilkes-Barre metropolitan area has an audience of more than 250,000. The format is eclectic with rock, jazz, urban and alternative music. In keeping with the University's mission the station produces public affairs programming and provides the community with an alternative to commercial radio. Students are encouraged to become involved with all aspects of the station, from on-air positions to management.

# Television

The Royal Television Network (RTN) gives students the opportunity for hands-on experience in digital video production. While RTN is part of the academic Department of Communication, all students are invited to participate. Students take the initiative in producing, directing, writing, shooting and editing television programs to express their creativity. These programs range from comedy and sports to news and public affairs. Student-produced programs appear on the campus cable television system. Some programs are chosen to appear on the Comcast Cable college channel.

# Theatre

The University of Scranton Players offer numerous opportunities for students across campus (regardless of major or minor) in their production season. Housed in the McDade Center for the Literary & Performing Arts, Players get hands-on experience working with professionals in the theatre arts in both of our performances spaces, the Royal Theatre & Studio Theatre. Our season offers a mix of classical and contemporary works as well as musicals and student-created projects.

Tied to the Theatre Program, the Players have played host to theatre luminaries like Stephen Karam, Sara Ruhl, Douglas Carter Beane, Caridad Svich, Dennis Size, Richard Harris, and Jason Miller.

Participation on & off stage is open to all students, regardless of academic year or major. Students interested should look for the University of Scranton Players on Facebook, at http://thescrantonplayers.com, or contact the Theatre Program Director in CLP 108.

# The Campus

The University's 58-acre campus is located in the heart of Scranton, a community of 75,000 within a greater metropolitan area of 750,000 people. Since 1984, the University has built 32 new buildings, acquired 18 and completed more than 50 major

renovation projects to acquired and existing facilities. (In 1985, the University had 40 buildings with 760,000 square feet. The current inventory is 81 buildings and over 2.4 million square feet.)

**The Harry and Jeanette Weinberg Memorial Library** at the center of campus includes a large study area open 24 hours a day with internet connectivity to the world. There is also a fully-equipped television studio with editing facilities in the **Communications Wing of St. Thomas Hall**, along with the broadcast studios of WUSR-FM, located in the **Loyola Science Center.**

**The John J. Long, S.J., Center** and the adjoining **William J. Byron, S.J., Recreation Complex** house the departments of Intercollegiate Athletics and Exercise Science and Sport. They also have facilities for intercollegiate and intramural basketball, wrestling, handball, tennis, racquetball, volleyball and swimming. **Fitzpatrick Field** is home to men's and women's soccer, lacrosse and field hockey teams. Offering lights and an artificial turf surface, it is also used for intramural and club sports.

In spring 2018 the University completed upgrades to the athletic fields and facilities known as the South Side Sports Complex, which was named the **Kevin P. Quinn, S.J., Athletics Campus**. The $14 million project was dedicated this spring in honor of the University's 25th president. The University's soccer, lacrosse, field hockey, baseball and softball Division III NCAA teams will play at the 11-acre athletics campus located along Broadway Street in Scranton. The campus also includes bleacher seating, a field house with team locker rooms and a training room, parking, a community basketball court and a children's play area.

Thirteen traditional residence halls, primarily for first-year students, are centered on terraced quadrangles at the core of the campus. **Francis E. Redington Hall, John R. Gavigan Hall** and **Christopher & Margaret Condron Hall** provide housing for sophomore students. The University also maintains a series of houses and apartment buildings in the vicinity of campus, some of which are organized around academic interests. In all, there are more than 35 housing options for students, who are guaranteed University housing for four years.

More recent additions to University housing for upper-class students is provided at **Pilarz and Montrone Halls, Mulberry Plaza, Madison Square** and **Linden Plaza**. This housing style consists of low-rise, multi-building complexes that provide apartment style living in two, three, four, and five bedroom units. All units contain kitchens and combined living and dining areas. In addition, there are seven campus houses with various size apartments some of which are organized around academic interests.

Performance and rehearsal space for the Performance Music ensembles and concert offerings is in the **Houlihan-McLean Center. The McDade Center for Literary and Performing Arts** includes a "black box" studio theatre and a 300-seat main theater, classrooms, a writing laboratory and offices for the English Department. The main floor of **Rev. Scott R. Pilarz, S.J., Hall** houses the University's main fitness center. A small food service operation and convenience store is located on the main floor of **Montrone Hall**.

**McGurrin Hall** houses the Panuska College of Professional Studies and contains classrooms, laboratories, an academic advising center, and offices for the departments of Counseling and Human Services, Education, Health Administration, Human Resources, Nursing, Physical Therapy and Occupational Therapy.

**Brennan Hall** is a 71,000-square-foot academic building located in the center of campus that provides offices, classrooms and support facilities for the Kania School of Management. Also in Brennan Hall is a 148-seat auditorium and seminar rooms. The McShane Executive Center on the fifth floor of Brennan includes conference and meeting rooms that are technologically equipped, as well as a dining and kitchen area. The main floor of Brennan Hall features the Irwin E. Alperin Financial Center. The center simulates a trading floor, complete with an electronic ticker and other news and data displays.

The **Retreat Center at Chapman Lake** is located 15 miles north of campus. The 20,100-square-foot building includes the chapel, which accommodates approximately 60 people and incorporates beautiful views of the lake, a dining room, kitchen, one large meeting room, five small meeting rooms and 25 bedrooms.

The **Patrick & Margaret DeNaples Center**, a 118,000-square-foot campus center, opened in January 2008. The building includes dining and meeting spaces, the bookstore, convenience store and mailing services, Student Formation & Campus Life and Campus Ministries, and a unique Student Forum. Its location along Mulberry Street expresses the University's commitment to engaging the Scranton community by the building's availability for a wide variety of events.

The **Loyola Science Center**, a 200,000-square-foot building designed to serve as the home for all the natural sciences research and instruction at the University, was dedicated in September 2012. The facility incorporates today's most innovative science teaching techniques into a dynamic, modern design that includes inviting spaces for student/faculty collaboration, visible glass-walled laboratories and the efficiencies of using shared instrumentation.

Other notable campus buildings include **The Estate**, former residence of the Scranton family that was constructed in 1865, houses the office of Undergraduate Admissions; **Campion Hall**, built by the Society of Jesus for its members in Scranton; **Hyland Hall**, which houses classrooms, the Hope Horn Gallery and Desktop and Instructional Resources; and **O'Hara Hall**, which is home to academic and administrative departments, including the Office of Educational Assessment and the Office of the Registrar & Academic Services; and **Brown Hall**, dedicated in February 2016 to honor Scranton's first African-American graduate.

**Edward R. Leahy Jr. Hall** was dedicated in September 2015. It houses the undergraduate and graduate departments of Exercise Science, Occupational Therapy and Physical Therapy. The 116,000, $47.5 million building contains interactive rehabilitation laboratories, flexible teaching facilities, classrooms, tele-health and research facilities. In addition, Leahy Hall is seamlessly integrated with McGurrin Hall to promote interaction with related departments in Panuska College – Nursing, Education, Counseling & Human Services, Health Administration and Human Resources.

# The University of Scranton at a Glance

## Students

The student population, including adult, part-time and graduate students, is approximately 5,253. About 89% of full-time freshmen live on campus.

| Schools and Colleges (Year Established) | | Enrollment Fall 2019 |
|---|---|---|
| College of Arts and Sciences (1888) | | 1,685 |
| Arthur J. Kania School of Management (1978) | | 1,423 |
| J.A. Panuska, S.J., College of Professional Studies (1987) | | 2,032 |
| Non-Degree Seeking | | 113 |
| | **Total** | **5,253** |
| | | |
| **Undergraduate Students** | **3,792** | |
| Men | 1,598 | (42%) |
| Women | 2,194 | (58%) |
| | | |
| **Graduate Students (Full-Time, On Campus)** | **609** | |
| Men | 186 | (31%) |
| Women | 423 | (69%) |
| | | |
| **Primary States of Origin (Full-Time Undergraduates)** | | |
| Pennsylvania | | 41% |
| New Jersey | | 28% |
| New York | | 24% |
| Other | | 6% |
| | | |

| Retention/Graduation Rates | |
|---|---|
| Fall-to-Fall Freshman Retention Rate | 88% |
| (National Average for Selective Bachelor's/Master's Institutions: 81%) | |
| Six-Year Graduation Rate | 83% |
| (National Average for Selective Bachelor's/Master's Institutions: 59%) | |

## Student Life

- Over 2,800 students provided more than 165,000 hours of service in 2018-2019
- More than 80 active clubs and organizations
- 23 NCAA Division III (non-scholarship) athletic programs – 11 for men and 12 for women
- One Empire 8 athletic team
- More than 1,500 student participants in intramural and recreational sports each year

## Academic Programs

| | |
|---|---|
| Bachelor's Degree Programs | 68 |
| Master's Degree Programs | 34 |
| Minors | 47 |
| Doctor of Physical Therapy | 1 |
| Doctor of Nursing Practice | 1 |
| Doctor of Nursing Practice Nurse Anesthesia | 1 |
| Doctor of Business Administration in Accounting | |

## Faculty

Eighty-nine percent of the University's full-time, instructional faculty members hold doctoral or other terminal degrees in their fields. The student-to-faculty ratio of 13:1 allows for class sizes that average approximately 20* students.

| | | |
|---|---|---|
| Full-Time Faculty | 272 | |
| Tenured Faculty | 184 | (68%) |
| | | |
| **Faculty Scholarly Activities & Publications, Since 2005** | | |
| Articles Published | | 1,913 |
| Books Published | | 213 |
| Book Articles Authored | | 260 |
| Book Chapters Published | | 354 |

| | |
|---|---|
| Book Reviews Published | 418 |
| Grants | 428 |
| Presentations | 3,784 |

## Economic Impact

The University created nearly $319.6 million in overall economic output and supported 1,953 jobs, including 1,237 employees (as of the end of the 2016-2017 academic year), according to data from an Institute for Public Policy and Economic Development impact study completed in 2018. On average, each student spends $36 per month dining out downtown and, since 2004, the institution has held more than 8,013 events at the University. Student, physician and nurse volunteers in the Leahy Clinic provide free healthcare services to Lackawanna County's uninsured residents — 1,039 patients in 2019.

## Catalog Archives

The Weinberg Memorial Library's digital collections include undergraduate and graduate course catalogs, published annually by The University of Scranton (and its predecessor, St. Thomas College). Undergraduate catalogs are available dating back to 1926; graduate catalogs are available from 1967. View the catalogs at www.scranton.edu/library/coursecatalogs.

# Campus Ministries

Office Hours: Monday–Friday from 8:30 a.m. to 4:30 p.m.
Phone: (570) 941-7419
Website: www.scranton.edu/ministries

## Our Mission

Campus Ministries, part of the Mission and Ministry Division, serves the mission of The University of Scranton by making visible and effective our Roman Catholic and Jesuit identity with a spirit of inclusivity of all religious traditions. Inspired by the Gospel of Jesus Christ and the charism of St. Ignatius Loyola, we offer students opportunities to explore their relationship with God through active reflection and discernment on retreats, preparing for the sacraments, engaging in interfaith dialogue, and worshipping together as a community of faith.

## Sacramental Life

Mass is celebrated daily on campus. The Sacrament of Reconciliation is offered each weekday prior to the 12:05 p.m. Mass.

## *WORSHIP SCHEDULE*

**Sunday Masses**

- 11:00 a.m.
- 4:30 p.m.
- 7:00 p.m.

**Weekday Masses**

- 12:05 p.m. - Monday-Saturday
- 4:40 p.m. - Monday-Wednesday, Friday
- 7:00 p.m. - Thursday, followed by Rosary & Benediction

**Byzantine Catholic Divine Liturgy**

- 4:40 p.m. Thursday

**Muslim Jum'ah Service**

- 1:00 p.m. – Friday

# Liturgical Ministers

Students serve the University faith community, primarily in the roles of Lectors, Extraordinary Ministers of the Eucharist, and Ministers of Hospitality. Additionally, students assume leadership roles in communal celebrations of prayer, such as the Stations of the Cross and Reconciliation Services.

# Music Ministry

Students dedicated to bringing music into the liturgical life of our community can participate in Music Ministry as cantors, choir members, and instrumentalists. These musicians provide music for Sunday Mass, seasonal prayer services, and University-wide liturgies.

# Building Faith Communities

## Retreats

Students are invited to join the Campus Ministries staff on overnight retreats each semester. Retreats are designed to empower students to explore more deeply their relationships with God. These experiences are thematic, focusing on the spiritual needs of our student body. Most retreats take place at our beautiful Chapman Lake Retreat Center located 12 miles from campus.

## Pastoral Counseling

Many students find campus ministers good mentors who help students reflect on their college experience. We are also here to assist students with questions about God and their faith lives.

# Spiritual Formation

## RCIA

The RCIA program (the Rite of Christian Initiation for Adults) is offered to any students interested in receiving the sacraments of Baptism, Confirmation, and/or Eucharist, with reception into the Roman Catholic Church during the Spring semester.

# Spiritual Direction

Those interested in broadening and enhancing their relationship with God can meet with a spiritual director regularly, usually for an hour every month or so, to discuss their prayer lives and their ever-changing relationships with God.

## For Students who are from Faith Traditions other than Roman Catholicism

The Campus Ministries' professional staff seeks to journey with students as each strives to incorporate the beliefs of each person's faith tradition into daily life. All programs offered from Campus Ministries are open to all students. Those who are searching for their place in relation to God, religion, and spirituality are most welcome to explore Campus Ministries' offerings. We are also ready and willing to assist students looking to find a house of worship of their religious tradition near campus.

- The **Campus Mosque** was established in 1996 and is located at 306 Taylor Avenue.
- Since 1988, the **Byzantine Rite Chapel** in Ciszek Hall on Mulberry Street has served as a place for personal prayer and Eastern Rite liturgical celebrations.

# Service and Social Justice

## Center for Service and Social Justice

Office hours: Monday – Friday from 8:30 am to 4:30 pm
Phone: (570) 941-7429
Website: www.scranton.edu/volunteers

The Center for Service and Social Justice (CSSJ), part of the Division of Mission and Ministry at the University, provides transformational learning experiences that respond to the Gospel call to help those in need and uphold the social justice teachings of the Catholic Church. The programming and experiences offered help inform the individual conscience and challenge each to work toward the transformation of unjust societal structures. The office focuses on four areas: Local service, Domestic Outreach, International Service and Social Justice.

- **Local service:** CSSJ works with 140 non-profit organizations in the Scranton area, providing student volunteers. We assist with placement, interviewing and training for individual student and Community Based Learning. We also sponsor on- campus programs such as SMART mentoring, Safe Trick or Treat for local children, food and clothing drives, pet therapy and many other programs.
- **Domestic Outreach**: This program sponsors service trips during Fall, Intersession and Spring breaks. Students travel to locations locally and across the country .Students are empowered to express their faith in reflective service while responding to local and national needs.
- **International Service:** This program provides opportunities for our students, faculty, and staff to be immersed in cultures and experiences in developing countries of our world, instilling a deep concern for the rights and dignity of every person, especially the poor and most vulnerable. These transformative seven to ten day service experiences in Central and South American countries take place during May and June at the completion of the Spring semester.
- **Social Justice:** These programs provide students with education, experiences and opportunities for advocacy. On-campus programs focusing on current topics of injustice are offered throughout the semester, including poverty, refugee and immigration simulations as well as many other options. Each November, we sponsor a trip to Washington DC to participate in the Ignatian Family Teach In for Justice. The Social Justice Club engages Scranton students in tangible acts of solidarity to build a more just and peaceful world, mobilizing their peers by learning about and acting on global emergencies and injustices. Participants organize awareness campaigns, prayer services, candlelight vigils, faith-sharing groups, legislative advocacy, and fundraising campaigns for global emergencies
- **CSSJ** also provides assistance to graduating seniors in finding placement in one of many long-term service organizations. By serving in the United States as well as the developing parts of the world, participants are able to enrich their own cultural vision and come to a deeper understanding of the Christian principle of justice.

## The Jesuit Center

The Jesuit Center, part of the Division of Mission and Ministry, assists the University of Scranton in keeping its Catholic and Jesuit character at the center of the educational enterprise.

Dedicated to advancing the University's strategic vision of "providing a superior, transformational learning experience" for its students, the Center does this by:

- Fostering faculty and staff participation in the Jesuit higher educational mission;
- Supporting faculty teaching and scholarship that advances the University's Catholic and Jesuit character;

Promoting Ignatian spirituality within an interreligious context.

# Academic Honor Societies

National Honor Societies that are represented at The University of Scranton are listed below in order of the foundation of the local chapters.

* Indicates member of the Association of College Honor Societies.

## Alpha Sigma Nu*

The National Jesuit Honor Society was founded in 1915 with chapters in 30 Jesuit universities throughout the United States. The Scranton chapter was founded in 1943, the oldest Honor Society in the University. It is the only Honor Society open to students and faculty in all disciplines and all colleges of the University. Its admission standards are the most rigorous. The Greek letters signify adelphotes skolastikon nikephoron – brotherhood of honor students. Juniors and seniors who have distinguished themselves in scholarship, loyalty and service are eligible for membership. Appointment is made by the president of the University on the recommendation of the moderator and nomination by chapter members of the Society. The Society annually presents the Edward Gannon, S.J., Alpha Sigma Nu University award for teaching.

## Phi Alpha Theta*

Phi Alpha Theta is for undergraduate and graduate students and professors of history. Its mission is to promote the study of history through the encouragement of research, good teaching, publication and the exchange of learning and ideas among historians. Basic requirements: 15 credits in history; grade point average of 3.5 in history and overall ranking in top 35% of class.

## Sigma Xi

International Honor Society in scientific research founded in 1886. The University's chapter was chartered in 1968 and has been authorized since 1979 to induct as associate members undergraduate or graduate students showing outstanding promise in original research.

## Sigma Pi Sigma*

National Honor Society in physics for undergraduate and graduate students, founded in 1921. Its chapters are restricted to colleges and universities of recognized standing which offer a strong physics major. The University's chapter was founded in February 1969.

## Omicron Delta Epsilon*

International Honor Society in economics. Basic requirements: junior standing, 15 credit hours in economics with an overall grade point average of 3.0 and a 3.33 average in economics. The University's XIV chapter of Pennsylvania was founded in May 1969.

## Psi Chi*

International Honor Society in Psychology founded in 1929, and the University's chapter was installed in 1969. Its mission is to recognize excellence in scholarship and to advance the science of psychology. The organization has more than 1,200 chapters in all 50 states and around the globe. Minimum qualifications include a major or minor in psychology, rank in the top 35th percentile in general scholarship, and superior scholarship in psychology.

## Phi Delta Kappa

International professional fraternity for men and women in education. Membership is limited to graduate students and teachers. The University's chapter was founded in 1970.

## Pi Gamma Mu*

International Honor Society in social science. Founded in 1924 to improve scholarship in the social sciences and to encourage interdisciplinary study. Basic requirements: at least 60 hours of academic work, an overall grade point average of at least 3.4, with at least 21 hours in the disciplines of economics, human services, psychology, sociology, political science or history. The University's chapter was founded in 1971.

## Pi Mu Epsilon

To qualify for Pi Mu Epsilon, a student must (i) major within the mathematics department, (ii) be a junior or senior, (iii) have taken MATH 114, 221, 222, and 351, (iv) have taken six additional credits at or above the level of MATH 299, and (v) have a 3.33 GPA overall and a 3.5 GPA in mathematics courses.

## Alpha Mu Gamma

National Honor Society for students of foreign languages, founded in 1931. The Greek letters signify amphi mouse glosson: for he muse of languages. The University's chapter of Theta Iota was installed in May 1973.

## Phi Lambda Upsilon

National Honorary Chemical Society established in 1899. The University's Beta Kappa chapter, one of 60 chapters nationwide, was installed in October 1975. For students with a chemistry grade point average of at least 3.00 (20 credits in chemistry minimum) and an overall 3.00 grade point average (64 total credit minimum).

## Alpha Epsilon Delta*

The national Health Preprofessional Honor Society founded in 1926. The University's Iota Chapter was installed in May 1976. Membership is open to students who have completed at least three semesters of pre-professional health work, have a minimum GPA of 3.2, and a science GPA of 3.2.

## Theta Alpha Kappa*

National Honor Society in theology and religious studies founded in 1976 at Manhattan College. The University's Alpha Nu chapter was installed in April 1980. Membership requires 12 credits in theology with an average of 3.5 and an overall grade point average of 3.0.

## Sigma Tau Delta*

National Honor Society in English founded in 1924. This organization is for students who major in English or Theatre, and/or minors in English, Theatre, or Writing with a grade point average of 3.4 or better in English, Theatre and Writing courses and an overall grade point average of 3.4 or better. The University's Mu Omicron chapter first met in April 1980.

## Alpha Epsilon Alpha

An Honor Society founded in 1980 at The University of Scranton by Fr. Joseph Hamernick, S.J., to recognize students who excel in their general studies and especially in the field of communication. For senior-level communication majors in the top 10 percent of the senior class.

## Alpha Kappa Delta*

International Honor Society for sociology students founded in 1920. Requirements include at least junior (third year) status and 12 credits in sociology with a grade point average of 3.0 both in sociology and overall. Students must also be in the top 35 percent of their class in general scholarship. The University's Upsilon chapter was founded in May 1980.

## Pi Sigma Alpha*

National Honor Society in political science founded in 1920. The Kappa Iota chapter at the University was installed in May 1980. Membership is limited to juniors and seniors with at least 18 credits (six courses) in political science, a grade point average of at least 3.4 in these courses, and overall rank in the top third of the class.

## Alpha Phi Sigma*

The National Honor Society for criminal justice, founded in 1942. The University's Epsilon Zeta chapter was installed in May 1982. Candidates must be a junior or senior having a criminal justice major or minor; complete at least four (4) criminal justice courses; maintain a 3.2 grade point average overall, as well as in criminal justice; and have class standing in the top 35%.

## Phi Sigma Tau*

National Honor Society for students of philosophy. The University's Tau chapter was installed in May 1982. Membership requires a major or minor in philosophy as well as excellence in philosophy, in both scholarly and extra-curricular activities. Induction is based on nomination and voting results of philosophy faculty and current members of the society.

## Omega Beta Sigma

The Women's Business Honor Society at The University of Scranton, founded in 1982, recognizes the academic excellence of students in business. Membership requires at least sophomore standing, a major or minor in some area of business, and an overall grade point average of 3.25 or higher.

## Upsilon Pi Epsilon

The first and only existing International Honor Society in the Computing and Information Disciplines, founded in 1967, and endorsed by the two largest professional organizations in the world, the Association for Computing Machinery (ACM) and the IEEE Computer Society (IEEE-CS).

The mission of UPE is to recognize academic excellence at both the undergraduate and graduate levels in the Computing and Information Disciplines. It is the expressed purpose of Upsilon Pi Epsilon to promote the computing sciences and to encourage its contribution to the enhancement of knowledge.

The University's Gamma Chapter was founded in 1985 and now numbers over300 members. Information, including eligibility requirements, may be found at www.cs.scranton.edu/~upe.

## Sigma Theta Tau*

International Honor Society of Nursing founded in 1922. The University's Iota Omega Chapter was chartered in April 1988. Membership is by invitation to baccalaureate and graduate nursing students who demonstrate academic excellence in the scholarship and practice of professional nursing. Qualified candidates have demonstrated outstanding ability in nursing, and rank in the upper one-third of the class. This prestigious organization of leaders, scholars and researchers comprises a global community of nurses who lead in using knowledge, scholarship, service and learning to improve the health of the world's people.

## Kappa Delta Pi

International Honor Society for education established in 1911. The Sigma Chi chapter was installed at The University of Scranton in 1992. It joins more than 500 chapters around the world in fidelity to four cherished ideals: Humanity, Science, Service and Toil.

## Beta Beta Beta

National Honor Society for biology founded in 1922. The University's chapter, established in 1994, is one of more than 520 chapters in the United States and Puerto Rico. The society encourages undergraduate biological research through presentations at conventions, publication in the journal BIOS, and research/travel grants. All undergraduate students interested in biology may join as associate members. A regular member must be of sophomore or higher status with a 3.0 grade point average in biology and having completed at least three biology courses (one upper level) and in good academic standing at the University.

## Beta Gamma Sigma*

Beta Gamma Sigma is the only business honor society recognized by AACSB International – The Association to Advance Collegiate Schools of Business. To be eligible for membership, the academic ranking of those being considered must place them in the upper 10% of the junior class, upper 10% of the senior class or upper 20% of the graduating master's class. The University's chapter of Beta Gamma Sigma was chartered in spring 1997.

## Lambda Pi Eta*

The National honor society for communication majors founded in 1985 to honor and encourage high levels of scholarship and leadership in the field of communications. The University's chapter was installed in 1999. Membership in the University of Scranton's chapter requires senior-level communication majors to have earned a GPA of at least 3.25, overall and in their major.

## Upsilon Phi Delta

The Upsilon Phi Delta Honor Society was founded in 1999 and established at The University of Scranton in 2002. This national organization recognizes graduate and undergraduate students in the health administration programs. Students must have a minimum overall grade point average of 3.25.

## Phi Epsilon Kappa

Phi Epsilon Kappa is a national, professional fraternity for persons engaged in or pursuing career in health, exercise science, kinesiology, physical education, recreation and sports management. Membership is designed to stimulate scholarship among the individual members and advance the fields. The University of Scranton's local chapter name is Zeta Gamma.

Requirements: a declared Senior Exercise Science major at the University of Scranton; an overall GPA of a 3.5 or higher; a GPA of 3.5 within Exercise Science courses.

## Nu Rho Psi

Although the National Honor Society for neuroscience was founded in 2007, the Pennsylvania Alpha chapter was established at the University in 2006. For membership, students must have a demonstrated interest in neuroscience, an overall minimum grade point average of 3.2, and a 3.5 average in neuroscience-related courses.

## Epsilon Eta (Eta Sigma Gamma Chapter)

Since 1967, Eta Sigma Gamma's mission is the "promotion of the discipline by elevating the standards, ideals, competence, and ethics of professional prepared men and women in Health Education." Membership is open to all Community Health Education

majors who qualify with a minimum overall grade point average of 3.0 and a grade point average of at least a 3.2 in the major. The Epsilon Eta chapter was installed at the University in 2012.

## Chi Delta Rho

Chi Delta Rho is the University of Scranton Chapter of Chi Sigma Iota Counseling Academic and Professional Honor Society International. The mission of Chi Sigma Iota, the international honor society for professional counselors, counselor educators, and students is to promote scholarship, research, professionalism, leadership and excellence in counseling, and to recognize high attainment in the pursuit of academic and clinical excellence in the profession of counseling. The focus is on promoting excellence in the profession of counseling and encouraging members to become more involved in professional development, community engagement, wellness and more. Students eligible to join CSI must have completed 9 credits and must have an overall GPA of 3.5 or better while enrolled in the program.

## Tau Upsilon Alpha

The Department of Counseling and Human Services successfully began its first National Honor Society for the B.S. program. The founding members were inducted during our inaugural induction in May 2008. The Tau Upsilon Alpha (TUA) National Honor Society is sponsored by the National Organization for Human Services and the EPSILON Chapter is available to recognize academic excellence of undergraduate Counseling and Human Services students.

The Epsilon Chapter of TUA supports the mission of NOHS "to honor academic excellence; to foster lifelong learning, leadership and development; and to promote excellence in service to humanity."

## Eta Sigma Gamma

Since 1967, Eta Sigma Gamma's mission is the "promotion of the discipline by elevating the standards, ideals, competence, and ethics of professional prepared men and women in Health Education." Membership is open to all Community Health Education majors who qualify with a minimum overall grade point average of 3.0 and a grade point average of at least a 3.2 in the major. The Epsilon Eta chapter was installed at the University in 2012.

## Eta Kappa Nu (HKN)

International Honor Society for Electrical Engineers and Computer Engineers founded in 1904. The University installed the Lambda Nu Chapter of HKN in 2012. Election to membership is a scholastic honor and is recognition of a student's leadership qualities and personal character. Requirements for membership include sophomore engineering/physics majors with an overall grade point average of 3.4; junior engineering/physics majors with an overall grade point average of 3.2; senior engineering/physics majors with an overall grade point average of 3.0. Members are expected to participate in on-campus IEEE/HKN seminars and IEEE/HKN service activities.

## Alpha Delta Sigma (ADS)

Alpha Delta Sigma (ADS), a national honor society sponsored by the American Advertising Federation (AAF), recognizes and encourages scholastic achievement in advertising studies. ADS is the only national, professional advertising honorary society in American higher education. Each year, hundreds of students from the AAF's college chapters are nominated and inducted into Alpha Delta Sigma. The organization dates back to 1913, when the fraternity was founded at the University of Missouri. In 1969, ADS merged with Gamma Alpha Chi, a similar organization for women. Later, in 1973, ADS merged with the American Advertising Federation.

## MU Kappa Tau

Mu Kappa Tau is the only Marketing Honor Society to offer both national recognition and chapter affiliation to its members. Founded by members of Pi Sigma Epsilon in 1966, its purpose is to recognize academic excellence and to encourage individuals seeking a lifelong commitment to an exceptional standard of ethics and achievement within the marketing discipline. Associated with more than 40 colleges and universities, Mu Kappa Tau proves to be a dynamic and ever growing organization with over 15,000 members. Mu Kappa Tau invites those who have attained academic excellence and/or have made significant contributions to marketing education or the marketing profession to join us!

The mission of Mu Kappa Tau (International Marketing Honor Society) is to recognize the scholarship, achievement, and professional development of marketing students committed to the advancement of marketing education and the integrity of careers in marketing.

The vision of Mu Kappa Tau (National Marketing Honor Society) is to be identified as the leading marketing honor society. We endeavor to recognize academic excellence in marketing, to build a community of marketing students and professionals, and to provide tangible value to our members.

# Academic Policies and Regulations

The University's Academic majors for undergraduates are offered through three schools – the College of Arts and Sciences, the Kania School of Management, and the Panuska College of Professional Studies. The schools share a common General Education program and offer associate and baccalaureate degrees in 60 fields.

# The Harry and Jeanette Weinberg Memorial Library

The 80,000-square-foot, five-story building, named for Harry and Jeanette Weinberg opened in 1992. The facility includes a variety of seating choices including 94 computer workstations, large tables, soft seating, individual study space, group study rooms, quiet study areas, and the Heritage Room, a large reading room on the fifth floor overlooking the campus. Four areas are available by card swipe 24/7:

- The Reilly Learning Commons, which includes lecture capture facilities, podcasting space, high-end computing, 6 Macs, a 3D printer, a Writing Center Satellite, and reservable group study rooms.
- The Pro Deo Room, which includes a computer lab, café seating, and a 46-inch touchscreen table PC.
- The Second Floor, which includes a computer lab, group study rooms, large tables, study carrels, two rooms for quiet study, Reference materials, and Periodicals.
- The Third Floor, which includes individual computer access, large tables, study carrels, and four rooms for group study. These rooms do not need to be reserved.

There are 15 laptops and 7 IPads available at the Circulation Desk for loan to students. Throughout the building, there is wireless access to the Internet including wireless printing. The Java City Café on the first floor provides hot beverages, smoothies, sandwiches, salads, soup, and snacks most hours the library is staffed during the fall and spring semesters. Food and drink may be consumed throughout the building.

In 2019, Library holdings of 908,954 volumes included: 330,803 print books; 475,355 electronic books; 76,239 bound journal volumes, and 26,557 volume-equivalent microforms. The Library has 65,231 unique journal titles in print and electronic subscriptions. The Media Resources Collection, located on the third floor, holds 23,219 non-print items and provides access to 105,689 streaming media programs. The University Archives and Helen Gallagher McHugh Special Collections, located on the fourth floor, houses the University's historical records, rare books, faculty publications, and other special collections. The library's Digital Collections are available at http://digitalservices.scranton.edu/. In addition to the Library's own collection, books are available for direct borrowing through PALCI (Pennsylvania Academic Library Consortium Inc.) E-Z Borrow, and journal articles may be requested through Interlibrary Loan. Special services for delivery of materials are available for distance learners.

130 electronic databases are accessible on the Library's website. A proxy server provides remote access to databases and full text documents for those who are off campus. Research & Scholarly Services are available in-person on the second floor, and can also be reached by calling 570-941-4000, by texting 570-687-8787, by emailing askalibrarian@scranton.edu, or online via the Ask a Librarian chat box located on the Library homepage. The online Ask a Librarian chat box is staffed 24/7 and is conducted live. The Library also has a robust Information Literacy Program that instructs students in information discovery, evaluation, and use. Students can visit the Research Services Desk or call 570-941-4000 to schedule an appointment with a librarian. Faculty are encouraged to schedule information literacy instruction sessions for their classes by going to https://www.scranton.edu/academics/wml/infolit/instruction.shtml

.Library hours are posted on campus and on the Library's website. The building is staffed 95.5 hours per week, with extended hours during exam periods. For information about the Library, its services, and resources, see the Weinberg Memorial Library homepage at http://www.scranton.edu/library. To find out what's new in the Library, visit http://sites.scranton.edu/library.

# Academic Support Services

## *College of Arts and Sciences*

The CAS Academic Advising Center, located in St. Thomas Hall 209, serves all freshmen in the College of Arts and Sciences. Staffed by professional advisors and by faculty advisors from a wide variety of disciplines, the Academic Advising Center offers a comprehensive program of academic advising throughout the freshman year. Advisors are available to students from 8:30 a.m. to 4:30 p.m. Monday through Friday. They provide assistance with orientation, registration, drop-add, general education course selection, declaration and change of major, and assessment of academic performance and goals.

Upon achieving sophomore status, all CAS students with declared majors are assigned a faculty advisor in the department of their major.

## *Panuska College of Professional Studies*

The PCPS Academic Services & Advising Center, located in 111 McGurrin Hall, serves all students in the Panuska College of Professional Studies. Staff are available throughout the year, Monday through Friday from 8:30 a.m. to 4:30 p.m., to provide individual assistance with academic advising, registration, assessment of academic performance and career goals. The Advising Center also works closely with other campus resources to provide comprehensive advisement opportunities. Faculty mentors are available to students within their academic departments.

## *Kania School of Management*

### Academic Advising Center

The KSOM Academic Advising Center, located in Brennan Hall, suite 206, serves all students in the Kania School of Management. Staff advisors are available from 8:30 a.m. to 4:30 p.m., Monday through Friday. The center provides assistance with orientation, registration, drop-add, general education course selection, declaration and change of major, and assessment of academic performance and goals.

For more information about the KSOM Advising Center please call 570-941-6100 or email advising-ksom@scranton.edu.

### Student Internship Office

The Kania School of Management Student Internship Office, within the Kania Center for Practical Learning, supports the Kania School by encouraging, facilitating, and coordinating the efforts to establish and maintain internship opportunities for all Kania School of Management students. Students are encouraged to secure at least one internship during their time at The University of Scranton.

For more information about the Student Internship Program please contact: Jason Schwass, Assistant Director for Student Internships at jason.schwass@scranton.edu or 570-941-4029.

# Center for Teaching and Learning Excellence

The Center for Teaching and Learning Excellence (CTLE), located on the fifth floor of the Loyola Science Center, provides academic support for students and opportunities for faculty to enhance teaching and learning.

The CTLE staff works with students to enhance their learning skills in order to meet their academic and future professional goals. The CTLE offers math and reading skill evaluation and enhancement, a writing center to assist students throughout the writing process, and tutoring for academic subjects. In addition, students learn how to use instructional technology to enhance learning. Students also receive assistance in developing critical executive function skills such as time management, note taking, organization, etc. by visiting the CTLE. Students with disabilities who register with the CTLE are eligible for academic accommodations and other services. The CTLE offers opportunities for faculty in the areas of mentoring programs, enhancement of pedagogy, and the use of technology to enrich teaching and learning.

The goal of the CTLE is to encourage and actively support a strong culture of scholarship for a diverse university community. To learn more about the CTLE's services for students and faculty, visit scranton.edu/ctle or call (570) 941-4038.

The Office of the Registrar and Academic Services supports the educational mission of the University by connecting students to the faculty, curriculum and classroom via the course scheduling and registration processes. As the custodian of the University's academic records, the office ensures the accuracy, integrity, and security of those records. Furthermore, as members of the University community, the office promotes equity and fairness by supporting the development and consistent application of effective policies and processes.

The Office of the Registrar and Academic Services strives to meet the diverse service needs of students, faculty, administrative staff, alumni, and the public. The Office serves current and former students on a daily basis by answering questions, issuing transcripts, certifying enrollment status, providing degree credentials and distributing schedules. Additionally, the office promulgates the master schedule of courses for each academic year, conducts registration, processes grades, certifies degree eligibility and manages several aspects of commencement.

Course registration for returning students is conducted in April for the subsequent summer and fall, and in November for the subsequent spring and intersession through the University's my.scranton.edu intranet portal. Self Service in the my.scranton.edu portal also provides secure links to unofficial academic transcripts, registration options, student class schedules, address

information, tuition accounts and financial aid information. Midterm and final grades are also available in Self Service through my.scranton.edu.

Located in O'Hara Hall, the Office of the Registrar and Academic Services is open daily from 8:30 a.m. to 4:30 p.m. For more information, call (570) 941-7721 or e-mail registrar@scranton.edu. Additional information and resources (including the academic calendar, degree audit instructions, course schedules, registration information and student grade point average calculator) are available online at scranton.edu/registrar.

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## Academic Code of Honesty

Students have responsibility for governing their own conduct in compliance with the Academic Code of Honesty, which addresses behavioral integrity in the academic work of the University. Conduct that violates the Code includes plagiarism, duplicate submission of the same work, collusion, providing false information, unauthorized use of computers, theft and destruction of property, and unauthorized possession of tests and other materials. Steps taken in response to suspected violations may include a discussion with the instructor, an informal meeting with the dean of the college and a hearing before the Academic Dishonesty Hearing Board. Students who are found to have violated the Code will ordinarily be assigned the grade F by the instructor and may face other sanctions. The complete Academic Code of Honesty is available in the deans' offices, in the Student Handbook and on the web at.scranton.edu/studenthandbook.

## General Regulations

All entering students – both freshmen and transfer students – are held to the degree requirements listed in the catalog of the year in which they enter.

The University reserves the right to change any of the policies, rules, and regulations in this catalog. All such changes are effective at such times as the proper authorities determine and may apply not only to prospective students but also to those who are already matriculated in the University. Curricular changes, however, shall not become effective until published in the catalog unless specifically approved for an earlier implementation date by the appropriate entity. If a change is approved for implementation prior to its publication in a catalog, the appropriate school, academic department, or program shall inform all students affected by the change. Students can appeal issues related to the application of policies, rules, and requirements, including changes thereto, to the dean of their college.

The University reserves the right to take appropriate disciplinary action in the case of any student who conducts himself or herself in a manner that is contrary to the standards of the University. These standards (particularly in the area of academic integrity) are given clear expression in the University's Academic Code of Honesty published in the faculty and student handbooks of the University. The University also reserves the right to modify admissions requirements, to change tuition and fee charges, and to change the schedule of courses.

## Degree Requirements

All students beginning the first term of their undergraduate degree/certificate program (matriculating) at The University of Scranton in the 2020-21 academic year shall be governed by curricular policies stated in this catalog. Catalog requirements will change to the catalog in effect when a change in major is declared and approved. A student's complete program of study may only be governed by one given catalog. First-year students admitted in 2020-2021 will follow the general education requirements of this catalog unless a change is subsequently promulgated.

A degree represents the successful completion of the entire undergraduate curriculum, including general education requirements, cognates, electives and major requirements. Students graduating with multiple majors receive a single degree and diploma. Students are solely responsible for the selection of courses and for the knowledge and completion of all degree requirements appropriate to their program of study.

In order to earn a bachelor's degree from The University of Scranton students must:

- earn a minimum of 120 credits, the total number to be determined by the student's major;
- complete all the courses and requirements prescribed in the curriculum table of the major;
- complete at least 63 credits at The University of Scranton, including the last 30 credits of their degree program;
- earn a minimum 2.00 overall grade point average; and
- remediate all failures in required courses. (See "Graduation Procedures and Commencement" for additional information.)

In the event a student does not maintain a 2.00 grade point average in required courses, his/her respective dean may take one of the following actions:

- place the student in a goal attainment semester for the purpose of raising the student's grade point average and remaining in the major;
- place the student in an exploratory semester for the purpose of a student exploring a new major(s); or
- grant a student permission to change to a new major if the department of the new major approves the requested change.

In all cases, students must either meet the standard in the original major or change to a new major within two semesters (in the case of part-time students, within 30 credits). Students who remain in the "Goal Attainment" and/or "Exploratory" semester programs for more than two semesters will be subject to dismissal by their dean.

## Credit Hour Policy

The University of Scranton complies with Federal (US DOE) and Middle States Commission of Higher Education (MSCHE) regulations regarding degree and credit hour requirements. The University of Scranton undergraduate degrees require the satisfactory completion of at least 120 semester credit hours, of which at least 63 credit hours satisfy, but are not exclusive to, fulfillment of general education requirements. Associates degrees require at least 60 semester credit hours. All master's degrees require at least 30 semester credit hours beyond the baccalaureate level. The number of credit hours for a degree beyond a master's degree is determined by the faculty and reflects the recommendation of professional associations or National learned societies.

The University's academic calendar includes an academic year divided into two semesters (fall and spring). Each is approximately 15 weeks in length. Accelerated sessions, such as Intersession and Summer, are variable in length and comply with the established University credit policy. In addition to the nonstandard, accelerated terms of intersession and regular summer, the University has three 16-week "special" terms each academic year for some graduate programs. Each of these special terms is comprised of one full 16-week session, two 8-week sessions and four 4-week sessions designated as "parts-of-term" in the enterprise database. The special term calendar launches using the same start date as the standard fall semester.

The University of Scranton defines a credit hour pursuant to federal guidelines. A credit hour is: "an amount of work represented in intended learning outcomes and verified by evidence of student achievement that is an institutionally established equivalency that reasonably approximates not less than:

1. One hour of classroom or direct faculty instruction and a minimum of two hours of out of class student work each week for approximately fifteen weeks for a semester or trimester hour,... or the equivalent amount of work over a different amount of time; or

2. at least an equivalent amount of work as required in paragraph (1) of this definition for other academic activities such as laboratory work, internships, practica, studio work, or other academic work leading to the award of credit hours" (34 CFR 600.2 as cited in FSA BB, Jan 2013, Vol. 3, p. 3-4; and DCL GEN-11-06).

The University also complies with the established curricular credit regulations of the Pennsylvania Department of Education (PDE): 22 Pa. Code Chapter 31, 31.21-31.22. One semester credit is defined as 14 hours of classroom instruction, exclusive of registration, final examinations and holidays.

# Credit Hour Standard by Instructional Method

The University of Scranton measures credit hours using the Carnegie unit; a credit hour is expected to be a reasonable approximation of a minimum amount of student work in accordance with the Carnegie unit. PDE's curricular credit policy allows for determining activities that are the equivalent of classroom instruction. Definitions of The University of Scranton's instructional methods appear below. For purposes of the definitions below, 50 Carnegie minutes equals 1 hour.

Lecture: courses with multiple students that meet to engage in various forms of group instruction under the direct supervision of a University faculty member. One lecture, seminar, or discussion credit hour represents 1 hour per week of scheduled class/seminar time and a minimum of 2 hours of student preparation time. Lecture courses are typically offered in accordance with the University's standard block schedule.

| Credits Awarded | Minimum Contact Time Per Week (excluding final exams) | Minimum Contact Time Per Week in Carnegie Hour Minutes (excluding final exams) | Total Instruction Time for a Standard Semester[1] (excluding final exams) | Minimum Total Instruction Time for a Standard Semester in Carnegie Hour Minutes (including final exams) |
|---|---|---|---|---|
| 1 | 1 hour | 50 minutes | 14 hours | **820 minutes** [i.e.,700 minutes of teaching + 120 minutes of final exams] |
| 2 | 2 hours | 100 minutes | 28 hours | **1520 minutes** [i.e., 1400 minutes of teaching + 120 minutes of final exams] |
| 3 | 3 hours | 150 minutes | 42 hours | **2220 minutes** [i.e., 2100 minutes of teaching + 120 minutes of final exams] |
| 4 | 4 hours | 200 minutes | 56 hours | **2920 minutes** [i.e., 2800 minutes of teaching + 120 minutes of final exams] |

## Lecture Hours Per Credit

[1] Standard semester at The University of Scranton is 14 weeks of direct teaching plus 2 literal hours (120 minutes) of final exams. The University considers the "one hour of direct faculty instruction" within the Carnegie unit to be 50 minutes, rather than a literal 60 minutes per hour.

**Laboratory and Studio:** courses with a focus on experimental learning under the direct supervision of a University faculty member wherein the student performs substantive work in a laboratory or studio setting. One laboratory credit hour represents 1-2 hours per week of scheduled supervised laboratory work and a minimum of 2 hours of student preparation time.

**Practicum:** a practicum provides students with the opportunity to practice and enhance skills that they have acquired in previous coursework. Practicum coursework may include a mix of didactic, group supervision and clinical hours. One practicum hour is equivalent to approximately 3 or more hours of work per week for 14 weeks.

**Education Practica: Student Teaching Practicum:** supervised student teaching representing 3 lecture hours and at least 30 classroom hours each week for 14 weeks.

**Internships, Clinical/field experience, Residencies, Externships**: courses developed for independent learning or experience involving directed and/or self-directed and often off-site learning. The content and learning outcomes are determined by the supervising faculty and the work supervisor at the cooperating site, both of whom must judge and certify different aspects of student's work and completion of agreed upon outcomes and assessment of those outcomes. The University requires a minimum of 14 hours of work for each credit hour earned in these types of experiences.

**Accelerated Courses:** courses offered in terms of length less than a traditional semester. These courses offer the same semester credit hours as traditional semester-length classes. Within the shortened time-frame, accelerated courses must meet the minimum contact hour requirements of the lecture format and the expectations of student preparation time equal that of a lecture course.

**Experiential Learning:** credit for experiential learning may be granted to individuals who submit evidence of learning equivalent to University level course objectives/learning outcomes. Considered evidence may include portfolios, summaries of learning experiences, letters from supervisors, CLEP, Excelsior College Examination, ACE-approved credit, portfolio credit, and PONSI credit and/or other materials that clearly illustrate achievement of each course learning outcome. Credit for experiential learning must be comparable in scope, content, academic rigor and student study time as courses offered in a lecture format.

**Independent Study**: courses of study in which a University faculty member regularly interacts and directs student outcomes with periodic contact. Students must illustrate achievement of the independent study course objectives/learning outcomes in order to receive credit. The student must interact with the faculty member on a regular and substantive basis to assure progress within the course. Semester hour credit awarded must be comparable in scope, content, academic rigor and student study time as courses offered in a lecture format.

**Hybrid:** Hybrid courses are a combination of face-to-face and online distance learning methods. Contact time is satisfied through face-to-face instruction as well as other methods, such as, but not limited to: a) regular online instruction or interaction with a faculty member once a week for each week the course runs; b) academic engagement through interactive tutorials, group discussions moderated by faculty, virtual study/group projects, engaging with class peers, journals, web-links, discussion board exchanges, chat room activities, blogs, on-line quizzes/exams, video conference, email correspondence, conference calls, etc. c.) computer tutorials graded and reviewed by faculty. Minimum student preparation time expectations equal that of a lecture course.

**Online (web-based):** courses offered entirely online without regard to face-to-face meetings. These courses have comparable learning outcomes and substantive components of a standard lecture course with alternate delivery methods. Minimum student preparation time expectations equal that of a lecture course. The University follows the definition of Distance Education/Distance Learning consistent with HEOA, PDE and Middle States standards and guidelines for all distance learning degree or certificate programs. Contact time is satisfied through several means which can include, but is not limited to, the following: a) regular online instruction or interaction with a faculty member once a week for each week the course runs; b) academic engagement through interactive tutorials, group discussions moderated by faculty, virtual study/group projects, engaging with class peers, journals, web-links, discussion board exchanges, chat room activities, blogs, on-line quizzes/exams, video conference, email correspondence, conference calls, etc. c.) computer tutorials graded and reviewed by faculty.

## Practices to Determine Amount and Level of Credit

The faculty is responsible for the curriculum. Credit values for courses are determined at the department level based upon faculty expertise, instructional method and course objectives. Upon departmental approval, the course undergoes additional evaluation as it moves through the course approval process. Faculty on the Curriculum Committees and the Faculty Senate review each new course and ensure that credit hours are in compliance before voting for approval of these new courses. The Office of the Provost reviews all new courses in order to ensure compliance with credit hours and course learning outcomes before awarding final approval of courses. Changes in curriculum are noted in the University Catalog (updated each July/August) and on the website.

Approved courses are sent to the Registrar's Office for inclusion in Schedule of Classes. The Office of the Registrar regularly audits scheduled course offerings to ensure compliance with credit hour requirements through its process for scheduling each semester. Discrepancies are brought to the attention of the appropriate department for correction.

## Communication of Information: Statement on the Expected Student Use of The University of Scranton E-mail Account

When students are admitted to The University of Scranton, a University e-mail account is created for them. All electronic communication from the University is directed exclusively to the University's electronic mailbox. Students are expected to access their University e-mail account on a weekly basis; however, daily access is recommended to stay abreast of important, time-sensitive information. University departments and faculty routinely will use email to communicate important campus, academic program and course information.

Information on how to access the network and e-mail is regularly distributed to new students by the Information Resources Department. For more information on how to access your University of Scranton e-mail account or if you encounter problems accessing your e-mail, contact the Technology Support Center at (570) 941-4357 or techsupport@scranton.edu.

## Course Numbering System

Courses appearing in this catalog are numbered according to the system described below. The first digit of any course number indicates the level of the course; the second and third digits specify categories of courses. Levels at which courses are offered include the following:

| | |
|---|---|
| **100-199** | Introductory courses |
| **200-299** | Lower division courses |
| **300-399** | Upper division courses |
| **400-499** | Advanced undergraduate courses |
| **500 and above** | Graduate (masters and doctoral) courses |

In cases where no specific prerequisite is listed in the course description, courses at the 300 or 400 level assume junior or senior standing and appropriate background in the discipline of the course.

Categories in which courses are offered are indicated according to the following system:

| | |
|---|---|
| **__00 – __79** | Courses available for general education, majors, minors, concentrations and cognate. Refer to course descriptions and specific program requirements for details. |
| **__80 – __81** | Practicum, Internship or Co-op courses |
| **__82 – __83** | Independent study |
| **__84** | Special topics |
| **__85 – __89** | Honors courses |
| **__90 – __92** | Seminars |
| **__93 – __94** | Research |
| **__95 – __96** | Travel courses |
| **__498 – __499** | Thesis |

Labs are indicated by an (L) following the number of the corresponding lecture courses. Courses in the Special Jesuit Liberal Arts Honors Program (SJLA) are indicated by a (J) following the course number; those in the Honors Program are indicated by an (H) following the course number; those in the Magis Honors Program in STEM are indicated by an (S) following the course number; those in the Business Honors Program are indicated by an (K) following the course number; first-year seminars are indicated by an (X) following the course

# *Course Schedule Changes*

## Dropping and Adding Courses

Students may add courses anytime between the initial registration period and the fifth class-day from the start of a fall or spring semester or the second class day of intersession and summer terms. Students who wish to drop one or more courses, but who plan to continue attendance in at least one other course during the term, must secure their dean's permission. A dropped course is not reflected on a student's transcript. The last day to drop a course is usually the thirty-first calendar day of a semester and the fourth calendar day of intersession and summer terms; specific dates are published in the official University academic calendar. A refund schedule for dropped courses applies to students paying on a per-credit basis or completely withdrawing from the University. Under this schedule, the last day for 100% tuition refund is usually the tenth calendar day from the first day of classes for a semester and the second calendar day from the first day of classes for shorter terms; the refund schedule dates are published in the official University academic calendar.

## Withdrawal from a Course

After the period to drop a course concludes, students may withdraw from a course until the published withdrawal deadline. A "W" grade is recorded on the transcript and appropriate tuition/fees are assessed. In all cases, students should first discuss the matter with the course instructor.

Students who wish to withdraw from one or more courses, but who plan to continue to attend at least one course for the term, must have a Schedule Change Form signed by their instructor and dean. Students who wish to withdraw from their last course(s) must submit the Complete Withdrawal/Leave of Absence Form. In either case, the forms are available online, through the Office of the Registrar and Academic Services, the academic advising centers, and the academic department chairpersons' offices. The

completed forms must be submitted to the Office of the Registrar and Academic Services by the withdrawal deadline as indicated in the University academic calendar. This deadline is approximately 30 days before the last class day for the semester and a proportionate period of time for a shorter session. Failure to officially withdraw from a course will result in a F-failing grade.

## Courses Taken as Readers and Independent Studies

The purpose of reader and independent study courses is to enable University of Scranton students in good academic and disciplinary standing to pursue a course of study that meets one of the following descriptions.

*Readers* are study experiences that replicate courses listed in the catalog and are offered to one or, less frequently, two students. These offerings are limited to meeting acute student programmatic need, as identified and accepted by the dean, and are not meant to be offered routinely. These courses are designated with the actual course number appearing in the undergraduate catalog.

*Independent Studies*, experiences provided to academically successful students, are specially designed learning experiences and are not offered in the normal course schedule. These experiences may be non-honors courses that, like honors tutorials, are based on a set of readings, discussions, and writing assignments; they may be based on experimental work; or they may involve intensive research activity. These specially designed courses are designated with numbers ending in _82 or _83.

Readers and independent studies may not ordinarily be used to fulfill general education requirements. Students may take no more than one reader or independent study per term and no more than one reader or independent study per year, on average, during the course of their degree programs. Readers and independent studies are to be taken for the same number of credits as are granted similar courses in the discipline in which the reader or independent study is offered. Readers and independent studies may not ordinarily be used to repeat failed courses. Readers and independent studies intended for the major, minor, and cognate are graded under the normal grading mode (A, A-, B+, etc.) unless excepted by the student's dean; other readers and independent studies are graded under the Credit/No Credit grading mode ("CS: Credit Satisfactory" for grades equivalent to C or higher; "CD: Credit Deficiency" for grades equivalent to C-, D+, and D; "NC: No Credit" for grades equivalent to F). Exceptions to these policies must be approved by the dean of the student's college and by the dean of the school offering the course, if different. The completed Reader and Independent Study forms should be submitted to the Office of the Registrar and Academic Services by the last day to add courses as published in the University academic calendar. A fee of $60 per credit, in addition to tuition for the course, will be charged. Readers and independent studies are not available to visiting students.

Faculty conducting independent study courses will provide the dean's office with a copy of the syllabus, reading lists, and examinations used in the independent study. Normally, faculty are limited to mentoring no more than two students per semester in any combination of readers, independent studies, and honors tutorials. Exceptions to this limitation may be made by the Dean in response to course cancellations or programmatic need.

## Enrollment Status and Attendance Policy

To be considered a full-time student, undergraduate students must be registered for at least 12 credits in any given term or semester, regardless of the number of credits remaining to complete degree requirements.

Students are expected to attend all scheduled meetings of the courses in which they are enrolled. Students are responsible for all material presented and announcements made during any class. Attendance policies for individual courses are determined by the instructor and must be promulgated in writing in the course syllabus.

## Final Examination Conflicts

When a student has three or more examinations scheduled on the same day, as represented on the examination schedule issued by the Office of the Registrar and Academic Services, the student may opt to complete all three examinations on the same day or have one exam rescheduled. If the student wishes to have one of the three examinations rescheduled, the examination with the lowest priority will be rescheduled. The scheduling purposes, the order of priority is as follows: (1st) major course, (2nd) cognate course, (3rd) elective course.

If a conflict exists between two courses of the same kind (e.g., two cognates or two electives), the course taught by the professor with the longest term of service at the university will have first priority.

If a student opts to reschedule one of the examinations in conflict, he/she must advise his/her faculty member prior to the last week of class. If an appropriate resolution cannot be reached between the student and the faculty member, the student should contact his/her dean.

# Grading System

Final grades are determined by faculty for all registered students at the completion of each term and semester according to the grading scheme defined in this section. Final grades must be submitted through the official grading system as designated by the Office of the Registrar and Academic Services. Final grades are recorded on each student's official, academic transcript. Final grades are available to each student after the grade submission deadline published in the academic calendar. Students may access their grades through the my.scranton portal under the Self Service section. Students may also grant and rescind third-party access to others through their Self Service accounts.

Freshmen receive mid-semester grades at the mid-point of each fall and spring semester. These grades provide feedback to students about their academic performance in current coursework. Sophomores, juniors, and seniors receive mid-semester grades only if their performance is deficient (grade of C- or less). Mid-semester grades enable students to gauge if remedial or other actions, such as course withdrawal, are warranted. Mid-semester grades are temporary indications of academic performance and are not recorded on a student's official academic transcript.

## *Primary Grades*

| | |
|---|---|
| **A, A-** | Excellent (outstanding and/or original work) |
| **B+, B, B-** | Good |
| **C+, C** | Satisfactory |
| **C-, D+, D** | Passing, but well below average |
| **F** | Failure (below minimum acceptable standards) |

## *Additional Grading Codes*

| | |
|---|---|
| **W** | Withdrew officially; deadline is one month before the last day of classes for the semester |
| **I** | A grade of "I-Incomplete" is a temporary grade which may be assigned at the instructor's discretion when illness, necessary absence, or other reasons beyond a student's control prevent completion of course requirement by the published last day of class. |
| **IP** | A grade of "In-progress (IP)" is a temporary grade which may be assigned by an instructor in specially designated courses that are longitudinal in nature. By design, the requirements of these courses exceed the length of one term. |
| **S** | Satisfactory – not calculated in grade point average (GPA) |
| **U** | Unsatisfactory – equivalent to failure; not calculated in GPA |
| **AU** | Audited course not taken for credit; does not count toward degree requirements or in the GPA |
| **CR** | Credit by Exam |
| **CS** | "Credit Satisfactory" – notes a course taken under the "credit/no credit" option in which a grade of "C" or higher is earned; counts in hours earned toward degree but not in GPA |
| **CD** | "Credit Deficiency" – notes a course taken under the "credit/no credit" option in which a passing grade less than C (C-, D+, D) is earned; counts in hours earned toward degree but not in GPA |
| **NC** | "No Credit" – notes a course taken under the "credit/no credit" option in which a passing grade is not earned; does not count toward hours earned toward degree and does not count in GPA |
| **NG** | No grade assigned; converts to F if not resolved by midpoint of following semester |
| **TC** | Transfer credit – counts in hours earned toward degree but not in GPA |

## *Incomplete Grade*

A grade of "I-Incomplete" is a temporary grade which may be assigned at the instructor's discretion when illness, necessary absence, or other reasons beyond a student's control prevent completion of course requirements by the published last day of class. This grade may be awarded to a student when, in the estimation of the instructor, (1) the student to has a legitimate reason to request an Incomplete grade; (2) the student attended the course and has successfully completed at least 60% of the required course work.[1] (3) the student has a reasonable likelihood of completing the remaining course requirements. In all cases, the Incomplete grade is a privilege exercised by an instructor. It is not a right ascribed to a student.

The student is responsible for developing a work plan which itemizes outstanding coursework and expected completion date(s). The work plan must be submitted to the instructor before the published last day of class. The instructor is responsible for delineating the conditions and terms for the completion of the course. A student assigned a grade of Incomplete is required to complete outstanding course requirements by the deadline(s) established for him/her by the instructor. The final deadline for completion of all course requirements may not exceed the mid-point of the subsequent semester, which for students enrolled in a regular term is the mid-point of the subsequent regular fall, intersession, spring or summer term and for students enrolled in special terms is the mid-point of the subsequent 8-week part of the special term (i.e. incomplete work from an "A" term is due by the mid-point of the subsequent "B" term). [See chart below and academic calendar for specific dates.]

| Term | Incomplete Grade Deadline |
|---|---|
| Regular Fall and Intersession | Mid-point Regular Spring |
| Special Fall A | Mid-point Special Fall B |
| Special Fall B | Mid-point Special Spring A |
| Regular Spring | Mid-point Regular Summer[2] |
| Special Spring A | Mid-point Special Spring B |
| Special Spring B | Mid-point Special Summer A |
| Regular Summer | Mid-point Regular Fall |
| Special Summer A | Mid-point Special Summer B |
| Special Summer B | Mid-point Special Fall A |

An Incomplete grade cannot be assigned as a substitute for non-attendance or a low or failing grade. Credits for a course in which an Incomplete grade has been issued are not considered earned for purposes of determining academic standing, academic honors, federal financial aid eligibility, athletic eligibility, or other purposes.

The student may not register for alternate coursework in future terms for the purpose of completing outstanding course requirements or re-enroll in the course for which the grade of Incomplete has been awarded. Work submitted before or at the deadline will be assessed by the course instructor, and the grade of "I" will be changed to the earned grade for the course. Failure to complete the necessary work within the stipulated time results in automatic conversion of the temporary "I - Incomplete" grade to a permanent grade of "F - Failure." The grade of F is considered final and will be reflected in the student's GPA and Satisfactory Academic Progress calculations.

Requests for an extension of a deadline for completion of an Incomplete grade must be made by the original Incomplete grade deadline and are subject to the approval of the instructor and the Dean (or his/her designee). Only in the most extenuating circumstances will extensions be granted. To make a request for an extension of a deadline for completion of an Incomplete grade, a student must complete a Petition to Extend an Incomplete Grade Form, which includes a justification for the request, a work plan that itemizes outstanding coursework with expected completion date(s) and relevant supporting documentation. The form must be submitted to the student's instructor and the Dean of his/her respective College. If approved, an extension of the Incomplete grade deadline may not exceed one additional regular or special academic term.

1Pursuant the Higher Education Act, a school is required to monitor student enrollment to determine the earned and unearned portions of Title IV aid in the event a student ceases to attend. Title IV aid must be returned if a student completes less than 60% of the requirements within a payment period. A school's grading policy must differentiate between students who complete the course but fail to achieve the course objectives and those students who do not complete the course. HEA, Section 484B. 34 CFR 666.8.22. DCL GEN-11-14, July 2011.

*2 The initial incomplete deadline by which a student must complete Regular Spring course requirements may be extended from the mid-point of the Regular Summer term to the first week of the Regular Fall term with permission of the Instructor and the Dean.*

### *In-progress Grade*

A grade of "In-progress (IP)" is a temporary grade which may be assigned by an instructor in specially designated courses that are longitudinal in nature. By design, the requirements of these courses exceed the length of one term. Examples of courses meeting this requirement include residencies, fieldwork, internships, practicums, theses and select honors and/or research courses.

Students assigned a grade of IP are assumed to be making satisfactory progress towards the completion of course requirements at a pace deemed acceptable to the instructor. Students assigned a grade of IP are required to complete course requirements by the deadline(s) established for him/her by the instructor. The final deadline for completion of all course requirements for which an IP grade has been assigned may not exceed one calendar year from the original start date of the course.

Credits for a course in which an IP grade has been issued are not considered earned for purposes of determining academic standing, academic honors, federal financial aid eligibility, athletic eligibility, or other purposes. Failure to complete the necessary work within the stipulated time results in automatic conversion of the temporary "IP – In-progress" grade to a permanent grade of "F - Failure." The grade of F is considered final and will be reflected in the student's GPA and Satisfactory Academic Progress calculations.

### *Audit*

Entry of the audit grade (AU) on a transcript assumes satisfactory attendance. The student should consult with the instructor as to what constitutes satisfactory attendance. **A change to audit can be made only by passing students and before the end of the first half of a semester.**

### *Repeat of Course*

Special permission is not needed to repeat a course at The University of Scranton. Recording of grades for repeated courses shall be governed by the following conditions: (1) credit for a course will be granted only once; (2) credit for the course will be lost if the course is repeated and failed; (3) the most recent credit and grade will count toward the grade point average with the exceptions that a W, I, IP, AU or NG grade cannot replace another grade; (4) each attempt to complete a course will be reflected on the student's transcript even though the credits of the earlier attempts do not count in the cumulative grade point average. For example, a course with a grade of F will continue to appear on the transcript even after the course has been repeated with a passing grade, although the credits from the initial failed attempt will not be used in the calculation of the cumulative GPA).

The earlier course attempt or attempts (with the exception of W, I, IP, AU or NG) will be denoted on the transcript by an "E – Excluded." "E – Excluded" means that the course has been excluded from the earned hours and GPA calculations. The latest attempt (with the exception of W, I, IP, AU or NG) will be denoted on the transcript by an "I-Included." "I-Included" means that the course has been included in the earned hours and GPA calculations.

### *Change of Grade*

A student who believes the grade received for a course is inaccurate should first appeal the matter to the professor, whose decision is normally final. The student has the right, however, to appeal to the faculty member's chairperson, who will make a recommendation in writing to his or her dean. The student may request the dean to review the matter. The decision of the dean is final. Ordinarily, no grade change will be considered unless it has been reviewed by the dean's office within one month from the time the original grade was available to the student.

## Grade Point Average (GPA)

A standard used in judging a student's performance is the grade point average (GPA). The value of each semester hour of credit earned is determined as follows: **a grade of A is valued at 4 quality points; A- at 3.67 quality points; B+ at 3.33; B at 3.00; B- at 2.67; C+ at 2.33; C at 2.00; C- at 1.67; D+ at 1.33; D at 1.00. An F yields no quality points.** Thus, for example, a 3-credit course with a grade of A yields 12 quality points; a B yields 9; a C yields 6.

The GPA is computed by dividing the total number of quality points earned by the total of grade point average credit hours. For example, 15 GPA credit hours, all at C grade, would earn 30 Quality Points or a 2.00 GPA (30/15).

The total number of grade point average credit hours includes those courses with final grades of F as well as A, A-, B+, B, B-, C+. C, C-, D+ and D. The grade designations of AU, CD, CR, CS, I, IP, NC, NG, S, W, TC and U do not count toward the GPA. This grade point average applies only to courses taken at The University of Scranton. Grades from other institutions are not computed into students' grade point average with the exception of those earned at Marywood University through The University of Scranton/Marywood University cross-registration agreement.

A grade point average listing is made at the end of each semester. On the basis of his or her cumulative grade point average, a student's rank in class and eligibility for Latin honors at graduation are determined. See "Graduation Honors."

## Grades with Distinction

### *Dean's List*

To be eligible for the Dean's List, full-time students must earn 12 or more credit hours that count toward the semester GPA (credit hours of AU, CS, CD, CR, I, IP, NC, NG, S, TC, U and W grades are not counted toward this requirement). Part-time students (students registered for fewer than 12 credits) must earn at least 6 credit hours that count toward the semester GPA to be eligible for the Dean's List. Of the eligible students, only those who have earned a 3.50 or higher semester GPA and who have no grade of D+, D, F, CD, NC, I, NG or U are named to the Dean's List for that semester. (Note: Honors Program IP grades do not prevent eligibility for Dean's List.) Students placed on the Dean's List will have this distinction noted on their transcripts. A student's GPA will be recalculated when the last temporary grade (I, NG) is replaced by a final grade. If this new GPA meets the above standard, the student will be placed on the Dean's List. Dean's List designations apply to fall and spring semesters only.

## Grade Option: "Credit/No Credit"

The "credit/no credit" option is designed to encourage students to pursue coursework of interest outside of their areas of study. Courses used to fulfill free elective and free cognate requirements are eligible to be taken with this option. Courses taken under the "credit/no credit" option count toward the accumulated credit hours for the degree, but they are not included in the grade point average calculation.

Students with a cumulative GPA of 2.67 or greater who have accumulated at least 60 credits toward their degree may elect to take some courses on a "credit/no credit" basis. Students may apply for the "credit/no credit" option by seeking approval from their dean's office and filing the completed forms with the registrar by the end of the second week of the semester (or by the second day of summer sessions and intersession). **The option cannot be reversed after the fourth week of class (or the fourth day of summer sessions and intersession).** Courses used to fulfill general education requirements, courses in the major and cognate, as well as courses in a minor or concentration, and those used to fulfill requirements in the Honors, SJLA and Business Leadership programs may not be taken under the "credit/no credit" option. Students may take no more than a total of four courses under this option, and no more than one per semester (other than internships, practicums, or physical education courses). Students receive the following transcript notations under the "credit/no credit" option: A grade of C or higher yields a CS (credit satisfactory) notation; a passing grade less than C (C-, D, D+) yields a CD (credit deficiency) notation; a grade less than passing (F) yields an NC (no credit) notation.

## Grade Difficulties: Academic Probation and Dismissal

One semester of academic probation is typically granted to a student whose GPA falls below 2.00, or who otherwise is in danger of dismissal. A student's dean may dismiss a student without granting probation when the student's performance is **so poor** that academic probation would not be in his or her best interest. Students who receive an F while on probation are also subject to dismissal, as are students who incur two F's in one semester, or who accumulate three F's that have not been successfully retaken. Probationary status may be removed through adequate achievement in the intersession or summer terms at The University of Scranton.

The student's dean has the option to stipulate the maximum number of credits for which a student may register during the semester while on probation. This limit may be less than the maximum of 18 credits which apply under normal conditions. Students on academic probation are ineligible for participation in extra-curricular activities without the written approval of their moderator, academic advisor and dean.

Students placed on academic probation for a second semester may not participate in any extracurricular activity until such time as they are formally removed from academic probation.

University policy prohibits students dismissed from another institution or a college of the University from registering for courses in any of the colleges of the University in the semester following dismissal.

# Graduation Procedures and Commencement

The University of Scranton provides the opportunity for students who have completed degree requirements to graduate at one of four points throughout the academic year: summer graduation (graduation date: August 31), fall graduation (graduation date: December 31), intersession graduation (graduation date: January 31), or spring graduation (graduation date coincides with the annual Commencement exercise). Commencement exercises are held once each academic year at the conclusion of the spring semester; the date is published in the official University academic calendar. Students who are certified to graduate in the summer, fall, intersession or spring may participate in Commencement.

Certification of graduation, receipt of a degree, and permission to participate in Commencement are not automatic. Students expecting to complete degree requirements for a spring graduation must make formal application online through their Self Service account in the University portal, my.scranton.edu by January 31st. Students who are expecting to complete degree requirements for an August graduation date must apply by June 30th; students who are expecting to complete degree requirements for a December or January graduation date must apply by October 31st. More information can be found on the Commencement webpage at www.scranton.edu/commencement.

## *Walker Policy*

Undergraduates who are within 6 academic credits of fulfilling all graduation requirements and are in good academic and disciplinary standing may request to "walk" at the spring Commencement ceremony. A student seeking to participate in Commencement must present a plan that outlines his/her remaining degree requirements to his/her dean no later than 5 calendar days prior to the date of the Commencement ceremony in which the student seeks to "walk". Outstanding coursework must be completed at The University of Scranton during the summer or fall semesters. The dean must reserve the right to approve or deny the student's request. If approved to walk, the student may not participate in a second commencement upon completion of all degree requirements.

# Graduation Honors

To be eligible for graduation and Latin honors at Commencement, a baccalaureate degree student must have completed a minimum of 63 credit hours of course work at The University of Scranton. *Note*: Latin honors are based upon a student's final undergraduate cumulative GPA at the completion of the baccalaureate degree program.

- ***Summa cum laude***: 3.85 cumulative GPA with a minimum of 45 credits counting in the GPA
- ***Magna cum laude***: 3.65 cumulative GPA with a minimum of 45 credits counting in the GPA
- ***Cum laude***: 3.50 cumulative GPA with a minimum of 45 credits counting in the GPA

# Interruptions in Attendance: Leaves of Absence and Complete Withdrawal

## *Leave of Absence*

Students may request their dean's approval for a leave of absence by completing and submitting the Complete Withdrawal/Leave of Absence Form available in the Office of the Registrar and Academic Services, academic advising centers, and academic department chairperson offices. Graduation requirements in effect for a student at the time of his/her approved leave begins will remain in effect when a student returns from his/her leave under the following conditions:

- The student is in good academic and disciplinary standing at The University when their leave begins.
- The student may not take courses at another institution without first securing written approval from their dean.
- The student's leave is limited to one semester but may be renewed for one additional semester with the written permission of their dean.
- The student must report their address and phone number to the Office of the Registrar and Academic Services and promptly reports a change of address/phone number to that office.
- The student understands that this policy does not bind The University to offer their curricula or major programs, which may have been discontinued or substantially altered during their leave of absence.
- A student who interrupts their education without an approved leave of absence must apply for readmission and will be subject to the catalog requirements in effect at the time of readmission.

- A student on an approved leave of absence must apply for readmission, however, the student will retain the same catalog requirements in effect at matriculation as long as their leave does not extend beyond a year.

## *Military Leave Policy*

If a student is called or volunteers for active military duty while attending The University of Scranton, the University will do its best to protect the academic and financial interest of the student within the norms of good academic judgment. The student must meet with the dean of his/her college and provide proof of being called to active duty. The dean, after conferring with the director of financial aid, the treasurer, the student's current faculty, and the student, will decide the course of action. The dean will then process the necessary paperwork and place the student on military leave status. If the student does not concur with the dean's decision, the student may appeal to the provost/vice president for academic affairs. The student is responsible for all room and board and related expenses incurred. Deans must confer with the Financial Aid and Treasurer's Offices before making decisions regarding refunds.

## *Complete Withdrawal from the University*

Students wishing to drop or withdraw from all of their courses, thereby discontinuing their enrollment, must secure their dean's permission to withdraw from The University. Students should also discuss any questions with their advisor or department chairperson. The form for withdrawal may be obtained in the Office of the Registrar and Academic Services, the academic advising centers, or academic department chairpersons' offices. University withdrawal is not official until all signatures required on the Complete Withdrawal/Leave of Absence Form have been obtained and the form is submitted to the Office of the Registrar and Academic Services.

Any tuition refund will be determined by the official date of University withdrawal. No grades for the term will be recorded on the student's academic record if the official University withdrawal date is on or before the last day for 25% tuition refund or the last day to drop courses according to the official University academic calendar. Grades of W will be recorded for course work if the official University withdrawal date coincides with the course withdrawal period. Final grades will be recorded for course work if the official withdrawal date is after the course withdrawal period for the term.

# Readmission to the University

A student who fails to enroll for a semester without an approved leave of absence must apply for readmission and will be subject to the catalog requirements in effect at the time of readmission. A student on an approved leave of absence must apply for readmission, however, the student will retain the same catalog requirements in effect at matriculation as long as their leave does not extend beyond a year. University policy prohibits students dismissed from another institution or a college of the University from registering for courses in any of the colleges of the University in the semester following dismissal. An undergraduate student who has been dismissed from The University of Scranton and wishes to apply for readmission to the University may do so no sooner than one full semester after the semester in which the dismissal took place. Readmission is not automatic; the student will need to demonstrate that the conditions which led to the dismissal will not present a continuing problem. Readmission is not permitted if a student is dismissed a second time from the University.

If a student seeks to return to the University within 5 years of his/her last date of attendance, the student must apply for readmission to the University through the college in which the intended program of study is housed. The dean of that college (i.e., the readmitting dean) will confer with the student's dean of last attendance at the University, if different from the readmitting dean. When determining eligibility for readmission, the dean may review the student's academic transcript and record. The dean may also confer with Student Formation about any disciplinary or mental health issues that might preclude readmission, and if the student was on medical leave, may also require documentation from the health-care provider that the student may now resume their studies.

If the student is requesting readmission into a program other than the one of her/his last attendance, the readmitting dean will confer with the department chair or director of the program to which the student is requesting readmission regarding program-specific admission requirements. If the student attended another college or university subsequent to her/his last attendance at the University, the student must submit an official transcript from that institution to the readmitting dean before that dean will render a final decision on readmission.

The dean will render a final readmission decision and inform the student and Office of the Registrar and Academic Services. If the dean renders a decision to readmit the student, that official transcript will then be forwarded to the Office of the Registrar and Academic Services for analysis/determination of transfer credit acceptable toward the intended program of study. **Pre-permission to take courses elsewhere is valid only if the student continues in the same program, and if there have been no significant curricular changes mandated by relevant certification bodies in the interim that would affect the transfer credit.** Transfer courses would need to be reevaluated upon readmission if the student changes programs.

If a student's separation from the university exceeds 5 years, the student must reapply through the Office of Admissions.

## *Academic Renewal Policy Upon Readmission*

Students who have not attended the University for at least five calendar years may request academic renewal. At the time of readmission, students seeking academic renewal must complete an academic renewal form and may petition their Dean to have up to 16 credit hours of deficient grades removed from their grade point averages (GPA). The deficient courses and their grades will remain on the transcript, however, they be excluded from the earned hours and GPA calculations and will not count toward graduation requirements. The courses with excluded grades on the transcript will be designated with an E, and the transcript key will explain that E means the course grade has been excluded from the GPA and earned hour calculations, yielding an amended GPA. A comment also will be added to the transcript indicating that the student received academic renewal and the date.

# Transferring Credits from Other Institutions Once Matriculating at The University of Scranton

Matriculating undergraduate students in good academic and disciplinary standing at The University of Scranton may transfer in a maximum of 10% of the total credits in their program. Undergraduate transfer students from another institution will be limited to a maximum of 10% of the total credits remaining in their program from the initial point of University of Scranton matriculation. All students must complete at least 63 credits at The University of Scranton, including the last 30 credits of their program of study.

University of Scranton undergraduate students who have completed their sophomore year (60 credits) are permitted to take courses at other four-year, regionally accredited institutions. Those who have not completed their sophomore year may be approved for courses at two-year or four-year regionally accredited institutions. The course(s) to be transferred to UofS must be comparable in nature, content, method of instruction, level and rigor to the equivalent course offered by UofS. In evaluating courses for transfer equivalency, course content should be substantially similar such that the student is believed to be positioned to succeed in subsequent coursework. Equivalency need not be a complete match. For courses in a sequence, students need to demonstrate sufficient preparation to succeed in the next course in the sequence.

Undergraduate students must secure advance permission of their dean to take courses at another institution. Permission may not be retroactively approved. Students may not take a course at another institution if they have failed the same course at The University of Scranton. Exceptions to this policy may be made by the student's dean. Students may earn credit for a course only once, regardless of where the course was completed, with the exception of some special topics courses, if approved.

Undergraduate students may validate courses taken at a non-AACSB institution by successfully completing one or more advanced courses in the subject for which the course in transfer is a foundation course. Approval is granted by the Dean of the Kania School of Management. This applies only to lower-division transfer courses which the University offers at the upper-division level.

Grades below C (2.00 in a 4.00 grading system) received elsewhere are not transferable to The University of Scranton; no grades from other institutions are computed into the student's grade point average, with the exception of those taken through the University of Scranton/Marywood University cross-registration agreement. Transfer credit will be awarded only upon receipt of an official transcript from the transfer institution. Transfer credit is recorded as a grade of "TC" on the student's transcript. Official transcripts must be sent to the Office of Registrar and Academic Services (ORAS) for review and processing.

# Online Courses

Many courses at the University require that students have access to a computer and the Internet for assignments, research, discussion groups, etc. The University provides each student with an account number and there are computer labs on campus for student use.

In addition, a number of faculty are using Desire2Learn, the standard University online courseware tool, to support or to teach an entire course. Desire2Learn enables an instructor to supplement a course with online materials and activities, or to deliver a course solely online. Desire2Learn contains modules for announcements, course documents, online tests/quizzes, discussion board, chat and assignments.

When Desire2Learn is used to deliver courses solely online the class documents are posted on the web and the students are responsible for submitting the assignments using the provided tools in Desire2Learn. There are virtual office hours via the chat room when the instructor can communicate with one or several students simultaneously.

To find out more about Desire2Learn, the computer equipment you need, and what you need to know before taking an online course, visit The University's Desire2Learn web page located at http://desire2learn.scranton.edu/d21/home.

## Student Rights and Confidentiality of Information

The University of Scranton recognizes the privacy rights of individuals who are or who have been students, as guaranteed by the Family Educational Rights and Privacy Act (FERPA) of 1974. No information from educational records, files, or other data directly related to a student shall be disclosed to individuals or agencies outside The University without the express written consent of the student. Except where prescribed by law, information regarding a student's education record may not be disclosed to a parent, guardian or spouse without the student's written authorization on file in the Office of the Registrar and Academic Services, academic advising center or dean's office, or unless the student has granted access to specific information to specific persons through the online Third Party Authorization Form in their Self Service account in the www.scranton.edu portal.

FERPA does authorize the University to disclose information without consent to school officials with legitimate educational interests. Legitimate education interest means that the official has a need to know in order to fulfill his or her professional responsibilities on behalf of the University. Examples of people having legitimate education interest depending on their official duties and within the context of those duties include: persons or companies with whom The University has contracted, such as attorneys, auditors, collection agents, consultants and other parties to whom the school has outsourced institutional functions or services; students serving on official committees, such as disciplinary or grievance committees or assisting school officials in performing their tasks; persons or organizations to whom students have applied for financial aid; persons in compliance with a lawful subpoena or court order; and persons in an emergency in order to protect the health or safety of students or other persons. In January 2012, the U.S. Department of Education's FERPA regulations expanded the circumstances of release to federal, state and local authorities to evaluate federal- or state- supported education programs, to researchers performing certain types of studies, and to state authorities in connection with Statewide Longitudinal Data Systems.

The University considers the following to be public information that may be made available, at its discretion, without prior consent of the student:

- Name
- Former name(s)
- Address (local and permanent)
- Telephone number (campus/local and permanent)
- Date and place of birth
- Photograph
- Major field of study
- Participation in officially recognized activities and sports
- E-mail address
- Dates of attendance
- Enrollment status
- Campus employment
- Class level
- Expected/actual date of graduation
- Degrees, awards, academic honors
- Weight and height of members of athletic teams

Students who wish to prevent the public disclosure of the above information may complete and submit a request to the Student Formation & Campus Life Office or Office of the Registrar and Academic Services. Request forms are available from any of the preceding offices.

A directory of student names, email addresses, colleges and academic years is promulgated by The University at the beginning of the fall semester. Students who do not wish to be listed in the campus directory must notify the University by the end of the first week of classes in the fall semester.

FERPA affords students the right to inspect and review their educational records within 45 days of the day The University receives such requests. Students should submit to the Registrar or other appropriate official written requests that identify the

record(s) they wish to inspect. University officials will make arrangements for access and notify requesting students of the time and place where their records may be inspected.

Students have the right to request the amendment of any educational records that they believe are inaccurate or misleading. They should write to the University official responsible for the record, clearly identify the part of the record that they want changed, and specify why they believe it is inaccurate or misleading. If The University decides not to amend the records as requested, The University will notify students of the decision and advise them of their right to appeal the decision and the process that must be undertaken to do so.

For more information regarding FERPA, please contact the Office of the Registrar and Academic Services, Room 106, O'Hara Hall. Students have the right to file a complaint with the U.S. Department of Education concerning alleged failures by The University of Scranton to comply with the requirements of FERPA. The name and address of the office that administers FERPA is: Family Policy Compliance Office, U.S. Department of Education, 400 Maryland Avenue SW, Washington, DC 20202-5920.

In addition, The University of Scranton complies with the Student Right-to-Know Act by providing graduation rate information to current and prospective students upon request. Graduation rate information may be obtained by contacting the Institutional Research Office or by consulting the University's Consumer Information webpage at http://www.scranton.edu/pir/institutional-research/HEOA/index.shtml

## *Policy and Procedure for Distance and/or Online Student Verification of Identity*

The University of Scranton complies with the Middle States Commission of Higher Education (MSCHE) and United States Federal Higher Education Opportunity Act (HEOA) regulations regarding policies and procedures to ensure student identity verification in distance education. Upon their admission to the University, each University of Scranton student is assigned a unique Royal Identification number (R number), username and password to access University systems, and is responsible for using and maintaining this information securely in accordance with other University practices and policies. A photographic ID should be used to verify student's in-person identity. Additional details regarding this and related verification, security, and confidentiality procedures, and where to go for questions or other support, are included in the University's Policy and Procedure for Distance and/or Online Student Verification of Identity.

# Degree Programs

The University offers the following degree programs for undergraduate students. Please consult departmental listings for program details.

# Major

## *Bachelor of Arts*

Advertising/Public Relations, BA

Business Communication, BA

Classical Studies, BA

Communication, BA

English, BA

French and Francophone Cultural Studies, BA (visit World Language and Cultures Majors, BA)

German Cultural Studies, BA (visit World Language and Cultures Majors, BA)

Hispanic Studies, BA (visit World Language and Cultures Majors, BA)

History, BA

Individualized Major

International Language-Business, BA

Journalism & Electronic Media, BA

Latin American Studies, BA

Mathematics, BA

Philosophy, BA

Social Media Strategies, BA

Theatre, BA

Theology/Religious Studies, BA

Women's and Gender Studies, BA

### *Bachelor of Science*

Accounting, BS

Applied Computing, BS

Applied Mathematics, BS

Biochemistry, BS

Biochemistry, Cell and Molecular Biology, BS

Biology, BS

Biomathematics, BS

Biophysics, BS

Business Administration, BS

Business Analytics, BS

Chemistry, BS

Chemistry-Business, BS

Computer Engineering, BS

Computer Science, BS

Counseling and Human Services, BS

Counseling and Human Services, Rehabilitation Services Concentration, BS

Criminal Justice, BS

Cybercrime & Homeland Security, BS

Economics, BS (CAS)

Economics, BS (KSOM)

Education, Early and Primary Teacher, BS

Education, Middle Level Teacher, BS

Education, Secondary, BS

Electrical Engineering, BS

Engineering Management, BS

Entrepreneurship, BS

Environmental Science, BS

Finance, BS

Forensic Chemistry, BS

Health Administration, BS

Health Administration, Long-Term Care Administration Concentration, BS

Health Promotion, BS

Human Resources Studies, BS

Individualized Major

Information Technology, BS

International Business, BS

International Studies, BS

Kinesiology, BS

Liberal Studies, BS (CAS)

Management, BS

Marketing, BS

Mathematical Sciences, BS

Mathematics, BS

Mechanical Engineering, BS

Medical Technology, BS

Neuroscience, BS

Nursing, BSN

Occupational Therapy†

Operations Management, BS

Physics, BS

Physiology, BS Political Science, BS

Psychology, BS

Sociology, BS

## *Associate in Arts*

*Associate in Arts*

## *Associate in Science*

Business, AS

Computer Engineering, AS

Counseling and Human Services, AS

Criminal Justice, AS

Electrical Engineering, AS

Health Administration, AS

Human Resources Studies, AS

Sociology, AS

## Minors

Minors require a minimum of 15 hours and are currently available in the disciplines noted below. Courses applied towards a major may not be applied toward the first 15 credits of a minor, however, courses applied to cognate or general education requirements may be used to fulfill minor requirements.

Accounting Information Systems Minor

Accounting Minor

Actuarial Science Minor

Applied Sociology Minor

Art History Minor

Biochemistry Minor

Biology Minor

Business Analytics Minor

Business Communication Minor

Business Leadership Honors Program Minor

Chemistry Minor

Communication Minor

Computer Science Minor

Counseling and Human Services Minor

Crime Analysis Minor

Criminal Justice Minor

Criminology Minor
Economics Minor (CAS)
Economics Minor (KSOM)
Educational Studies Minor
English Minor
Entrepreneurship Minor
Finance Minor
Forensic Accounting Minor
General Business Minor
Health Administration Minor
History Minor
Human Resources Studies Minor
International Studies Minor
Leadership Minor
Management Minor
Mathematics Minor
Music History Minor
Operations Management Minor
Philosophy Minor
Physics Minor
Political Science Minor
Psychology Minor
Social Media Strategies Minor
Sociology Minor
Sports Communication Minor
Studio Art Minor
Theatre Minor
Theology/Religious Studies Minor
World Languages and Cultures Minors
Writing Minor

## Concentrations

A concentration is a defined curricular program of study offered through the collaboration of faculty from two or more academic departments or disciplines. A concentration requires a minimum of 15 credit hours. Opportunities for concentrations are described in the departmental sections.

Asian Studies Concentration
Business Analytics Concentration
Catholic Studies Program
Coaching Concentration
Data Science Concentration
Environmental Studies Concentration
Italian Studies Concentration
Integrated Data Analysis Concentration
Judaic Studies Concentration
Legal Studies Concentration
Lifespan Development Concentration
Nutrition Studies Concentration
Peace and Justice Studies Concentration
Women's and Gender Studies Concentration

*† Students entering the Occupational Therapy program will earn a B.S. in Health Sciences after completing the first four years of a five-year program and a Master of Science degree in Occupational Therapy after completion of the fifth year.*

# Special Programs

The University of Scranton offers outstanding undergraduate students the opportunity to earn both a bachelor's and master's degree through an Accelerated Master's Program or a Combined Baccalaureate/Master's Degree Program.

## Accelerated Master's Degree Programs

These programs allow an undergraduate student who has an excellent academic record to enroll in graduate courses while completing requirements for the baccalaureate degree. University policy allows accelerated students to apply up to 12 graduate credit hours toward the completion of their undergraduate degree requirements. Individual programs, however, may allow fewer a number of graduate hours to fulfill undergraduate degree requirements; programs determine which undergraduate degree requirements may be fulfilled by graduate coursework.  Students will earn their undergraduate degree upon completion of all undergraduate requirements and will then continue with graduate study.

The student's undergraduate advisor, in consultation with the graduate program director, will identify graduate coursework that will meet undergraduate requirements. Graduate courses may not be used to fulfill undergraduate degree requirements that have been satisfied by previously completed coursework. The selection of the graduate course work and the number of credits to be applied toward an undergraduate degree requires the approval of the graduate program director in the student's academic discipline, the student's undergraduate program advisor, the chair of the department housing the student's undergraduate program, and the appropriate dean who is responsible for the undergraduate program.

Program advisors will develop an individualized curriculum for each student based upon opportunities for graduate courses to meet undergraduate degree requirements and space in the student's course schedule. Students typically enroll in 3 graduate credits per term but may enroll in additional credit hours in a term with the approval of the graduate program director. Accelerated students may register for a maximum of 15 total credit hours during any semester that he/she is registered for a graduate level course unless the dean who is responsible for the undergraduate program has given his/her approval. While a student is enrolled in the accelerated program, grades earned in graduate-level coursework will be calculated in the student's grade point average in both the undergraduate and graduate degree programs.

# Combined Baccalaureate/Master's Degree Programs

These programs allow an undergraduate student who has an excellent academic record to complete requirements for the baccalaureate, while also electing graduate courses. Graduate work attempted while the student is in an undergraduate phase must satisfy undergraduate degree requirements (not to exceed a total of 12 credit hours). Students typically enroll in 3 graduate credits per term but may enroll in 3 additional graduate credit hours per term with the preapproval of the graduate program director and the dean. A Combined BS/MS student may register for a maximum of 15 total credit hours during any semester that he/she is registered for both graduate and undergraduate courses. Students will earn their undergraduate degree upon completion of all undergraduate requirements and will then continue with graduate study. While a student is enrolled the combined program, grades earned in graduate-level coursework will be calculated in the student's grade point average in both the undergraduate and graduate degree programs.

## Admissions Requirements for Accelerated Master's Programs or the Combined Baccalaureate/Master's Degree Program:

1. Completion of an application for Graduate Admissions
2. Completion of the Accelerated/Combined Master's Degree Program Curriculum Approval Worksheet
3. Three Letters of Recommendation
4. A Statement of Purpose
5. Completion and submission of any program specific admission requirements.

*NOTE: A student, who has earned credits elsewhere, including transfer of credit from other colleges and AP courses taken in high school, may be considered for an accelerated or combined program. The student must have earned at least 32 graded semester hours at The University of Scranton within the indicated GPA requirements.*

# Doctoral Programs

The University offers a Doctor of Physical Therapy. This online degree program is offered to all qualified, master's-educated physical therapists. In addition, the University offers a Doctor of Nursing Practice and a Doctorate in Business Administration. Further information about both programs is available in the *Graduate Studies Catalog*.

# Double Major

Students at the end of the first semester of freshman year or thereafter may elect to pursue a second major in addition to their first major. Students must secure written permission from the appropriate dean and the two pertinent department chairs. Students pursuing a second major are required to complete all major and required cognate courses plus general education courses that are explicitly required as part of the second major program of study. The remainder of the credits in the General Education area need not be repeated. Except for double majors involving education and a content area, a second major will not be awarded for fewer than 18 credits in the second field that are not counted as part of the first major. Students completing double majors receive only one degree and diploma.

## Three-Year Bachelor's Degree

The University of Scranton's curriculum and academic calendar allow qualified students to attain their bachelor's degrees within three years, thus considerably reducing the overall cost of their undergraduate education and allowing the student to enter the workforce or begin advanced study a year earlier. While Advanced Placement credits are useful in this regard, a student who has not earned these credits may still complete the degree program in most majors within three years by pursuing additional coursework during intersession and summer terms. A student interested in a three-year bachelor degree should contact their advisor and/or dean as early as possible in order to plan their schedule. Entering freshman may opt to use the summer term immediately following high school graduation to advance their studies in the three-year program; if interested, the student should consult the Director of Admissions should be consulted. Details on the special Scranton Preparatory/University of Scranton Seven Year (4-3) High School-College Degree Program are available from the Dean of Studies at Scranton Preparatory.

# State Authorization

## Programs that Lead to Professional Licensure or Certification

The University of Scranton has been approved by Pennsylvania to participate in the National Council for State Authorization Reciprocity Agreements. NC-SARA is a voluntary, regional approach to state oversight of postsecondary distance education.

For professions such as teacher preparation, education, nursing, counseling, occupational therapy and physical therapy, each state approaches licensure and certification in its own way. The University of Scranton's programs are designed to meet the licensure and certification requirements for the Commonwealth of Pennsylvania. The University cannot confirm whether our program requirements meet the professional licensure or certification requirement of the various states. Students should determine whether the program meets requirements for licensure or certification in the state in which they are or wish to be employed. Information regarding licensure/certification for specific states can be found at https://www.careeronestop.org/toolkit/training/find-licenses.aspx or www.teach.org

## Faculty/Student Research Program

The Faculty/Student Research Program (FSRP) provides students an opportunity to become involved in faculty research. Students in all fields may participate. There are no fees for the FSRP; the program is open to all students in good academic standing including incoming freshmen. While students do not receive academic credit, they do receive transcript recognition upon successful completion of the research activity.

To participate in the program, students must identify a faculty sponsor with whom they choose to work. This may be done by talking to individual faculty members directly about their research interests or by consulting the FSRP Directory, which includes information on research projects and any student prerequisites. When a student and faculty member agree to work together, they complete a learning contract that outlines the nature of the research, the tasks involved and the hours to be worked. The contract must be completed each semester that a student participates in the FSRP.

Faculty Student Research Learning Program Contract forms are available at the Office of the Registrar, (570) 941-7721.

## Student/Faculty Teaching Mentorship Program

The Student/Faculty Teaching Mentorship Program offers advanced students the opportunity to assist and be mentored by faculty in the teaching of selected courses. Together, they will craft the mentoring experiences that best fit the pedagogical requirements of the relevant course.

There is no fee assessed for this non-credit experience. While students do not receive academic credit or a grade, they do receive transcript recognition. The program is open to all undergraduate and graduate students in good academic standing.

For more information about the program, contact the Center for Teaching and Learning Excellence, located on the fifth floor of the Loyola Science Center, at (570) 941-4038.

## Fellowship Programs

The Office of Fellowship Programs, located in IMBM 3rd floor, assists students preparing to make application for national and international awards, including, among others, the Truman, Mellon, James Madison, National Science Foundation, Goldwater, Soros, Churchill, Marshall, and Rhodes Scholarships For more information visit us at

www.scranton.edu/academics/fellowships/index.shtml.

## Fulbrights

Dr. Susan Trussler of the Economics/Finance Department is the University's Fulbright Program Advisor. Additional information is available online at www.scranton.edu/fulbright.

# Internship Programs

The University's commitment to internships as an integral part of the educational process is strong. Internships provide students the opportunity to reflect upon, analyze and critique their experiences in ways that demonstrate their ability to integrate what they have learned in the classroom with what they are learning in the field.

Credit-bearing internships are available to students in many majors. For specific information on such internships, students should contact their academic advisors to complete an internship application, which includes a set of clearly defined objectives, internship responsibilities and an assessment plan. Credit-bearing internships are co-supervised by a faculty member and an on-site supervisor.

To support accessibility of non-mandatory, credit-bearing internships to undergraduate students, internship tuition for summer and intersession terms will be charged at one third of the academic credit of the course. (For example, if the internship is 3.0 academic credits, the tuition charged would be 1 credit.) For non-mandatory internships in fall or spring semesters, the tuition will be adjusted to one third of the academic credit only if the internship causes an overage to the 18 credits covered under flat tuition.

This policy does not apply to required clinical courses in any of the PCPS majors, or to internships/residencies in counseling and human services (CHS), community health education (CHED), health administration (HADM), human resources (HRS) or required internships in Kinesiology (KNES). This policy does not apply to required internships in any program of study nor to graduate-level internships in any term.

Non–credit-bearing internships are also available. They are less structured and do not necessarily relate to specific course work. Students wishing to participate in the non–credit-bearing Career Experience Program should contact Career Services at (570) 941-7640 to schedule an appointment with a counselor.

## Second Degrees

Persons with good scholastic records and baccalaureate degrees from regionally accredited institutions, may apply to earn a second baccalaureate from the University of Scranton through Undergraduate Admissions.

Candidates for a second baccalaureate degree are expected to complete a minimum of 30 credits at The University of Scranton beyond the completion of the studies for the first degree, of which at least 15 credits must be in the second degree's major. Students must complete all requirements for the second degree not covered by the first degree program for the major and cognate courses. All prerequisites for the major and cognate courses must also be completed. Official transcripts from all post-secondary institutions attended are required.

No semester hours from the first baccalaureate degree can be applied toward this 30-credit requirement.

# Community Based Learning

Community-Based Learning (CBL) is an academic experience that involves students working with individuals, groups, or organizations in ways structured to meet community-defined needs. In keeping with the Jesuit, Catholic mission of The University of Scranton, community-based learning* incorporates a global perspective and understanding through integration of theory with practice, direct engagement with community members, and personal and critical academic reflection. Courses that include a community-based learning component prepare students to understand common challenges facing humanity, identify systemic problems, and develop a commitment to their communities, especially people who live and work in poverty, illness, inequality, hopelessness, and other social disparities.

Students in the Panuska College of Professional Studies complete community-based learning experiences as a requirement for graduation. The College of Arts and Sciences and Kania School of Management also offer several courses that include a community-based learning requirement.

The University as a whole received recognition of its community-based learning accomplishments with the classification by the Carnegie Foundation for the Advancement of Teaching as a Community Engagement institution.

*Community-based learning courses are designated with (SL).

## Special Sessions

The University of Scranton annually offers Intersession in January and several summer sessions to allow students to accelerate their degree programs or to make up courses that may not have been completed during the regular semesters.

# International Education

In fulfillment of our mission as a Catholic and Jesuit institution, The University of Scranton is committed to building a diverse international institution that serves the needs of an increasingly interdependent global community. We strive to create a welcoming and richly diverse campus with a commitment to international education and fellowship of the human family.

The University of Scranton has a solid international education record. To date, nearly 1,500 University students from nearly every major have studied in 53 countries and on every continent but Antarctica. Our faculty, administrators and staff hold degrees from 135 different universities in 26 countries on five continents. International students have been attending the University since 1946. At present, students from 24 different countries are enrolled in either the undergraduate or graduate schools.

## *International Programs and Services Mission Statement*

The International Programs and Services (IPS) office promotes the University's mission by facilitating the integration and acculturation of international students and scholars, as well as by promoting initiatives such as study abroad, scholar exchanges, international internships, and global partnerships. Reaching out to the entire campus community our services are designed to encourage and foster understanding and appreciation of diverse cultures, as well as to help prepare our students for successful participation and leadership in a global society. We invite you to visit us to learn more about how we are building bridges to promote intercultural understanding, global competency and fellowship in our interconnected world.

## *Studying Abroad*

The University of Scranton provides opportunities for students to study at other universities around the world. The Office for Study Abroad provides one-stop shopping for students interested in studying abroad. The office encourages students who have an interest in gaining global experiences to stop by early and often in their academic career. Experts will help students identify study abroad options, provide academic advising, process applications, and provide comprehensive pre-departure services.

The University works closely with institutions around the world and is committed to working with the individual student to identify the study abroad site that is best for them. In many cases, adjusted financial aid packages and University of Scranton scholarships may be used while studying abroad.

## *International Students and Scholars*

IPS ensures the smooth integration and adjustment of international students and scholars into the University community; ensures compliance with immigration regulations for the University; facilitates relocation of international students and scholars to the Scranton area; provides guidance, counseling and mentoring; and creates opportunities for international students and scholars to become valued and productive members of the community.

## *International Programming*

IPS sponsors a variety of internationally focused activities and programs during the academic year such as International Education Week and International Women's Week. Faculty and student discussion groups that focus on pressing global issues and events are held in the IPS International Center. IPS sponsors a Family Friendship Program that connects international students with families in the local community. Through the Global Ambassador Program, American students who have studied abroad and international students visit classrooms in local schools and the University to discuss aspects of their experiences and culture.

## University of Scranton/Marywood University Cross-Registration

Full-time undergraduate students who are in good standing and have completed 30 credits at The University of Scranton may take two Marywood University courses (equivalent to 6 credits) during the calendar year (January to December) on a space-available basis and with the approval of their advisor and dean. Part-time students who are in good academic standing and have completed 30 credits at The University of Scranton may take one Marywood course for every five Scranton courses, for a maximum of six Marywood courses, on a space-available basis and with the approval of their advisor and dean.

# General Education Curriculum

General education at The University of Scranton aims to generate opportunities for students to obtain and demonstrate broad knowledge of human cultures, social formations, and the physical and natural world. Moreover, philosophy and theology enjoy a special place in the Jesuit and Catholic educational traditions; in tandem with other disciplines, they encourage students to reflect on fundamental questions of ethics and faith in their personal and professional development. As such, the transformation for which The University of Scranton strives builds on shared, formative educational opportunities.

Students who take full advantage of the breadth of opportunities afforded to them by the general educational curriculum will develop a commitment to life-long learning and be practiced in the creative and compassionate imagination required to respond to the spiritual, intellectual, and material needs of others in a diverse and globalizing world. These include a range of courses that support the acquisition of intellectual and practical skills for formal and informal communication (oral and written) and for the critical and innovative thinking that guides inquiry and analysis. Foundational learning is often described as skills, but no skill can be taught or learned in isolation from content or processes. To that end, the general education curriculum is designed to achieve the goals articulated below by engaging students in fundamental areas of technological and information literacy, diversity, humanities, natural sciences, philosophy, quantitative reasoning, social-behavioral sciences, and theology.

The general education curriculum is composed of required and elective courses that are intended to lead students to these goals. The curriculum also includes opportunities to develop both depth and breadth in the major, the cognate, and in the areas of natural science, social/behavioral science, humanities, philosophy, and theology. Within the disciplines listed above, students will also take at least two courses that are writing intensive and two courses with a strong cultural diversity component.

Courses that fulfill general education requirements as described in the outline below can be identified in the catalog and course bulletin listings by a letter code in parentheses preceding the course title:

| | |
|---|---|
| **FYS** | First-Year Seminar |
| **FYW** | First-Year Writing |
| **FYOC** | First-Year Oral Communication |
| **FYDT** | First-Year Digital Technology |
| **Q** | Quantitative Reasoning |
| **CH** | Humanities/Culture: History |
| **CL** | Humanities/Culture: Literature |
| **CA** | Humanities/Culture: Arts |
| **CF** | Humanities/Culture: Foreign Languages |
| **CI** | Humanities/Culture: Interdisciplinary |
| **P** | Philosophy or Theology/Religious Studies |
| **E** | Natural Science |

| | |
|---|---|
| **S** | Social/Behavioral Science |
| **EPW** | Writing-Intensive |
| **D** | Cultural Diversity |

Courses having more than one letter code indicates that the course satisfies multiple general education requirements; e.g., (CH,EPW) satisfies both a Humanities/Culture: History and a Writing-Intensive requirement.

# Outline of General Education Requirements

## Eloquentia Perfecta

In accordance with the Jesuit pedagogical goal of Eloquentia Perfecta, the University of Scranton aims to prepare students to speak, write, and to communicate effectively in varied modes and media, and so develop skills that will enable them to contribute to the greater good as engaged and compassionate professionals and citizens. Eloquentia Perfecta derives its goals from rhetorical traditions stressing excellence and logical clarity in communicating. It develops progressively and recursively as students produce a variety of discourse and master the associated arts of reading, listening, observing, inquiring, analyzing, and thinking critically

The goal of the general education Eloquentia Perfecta requirement is to assure and further develop each student's abilities to gather, evaluate and disseminate information and ideas. Eloquentia Perfecta foundation courses consist of the following, which the student normally completes in their first year of study: 1) First-Year Seminar (FYS); 2) First-Year Writing (FYW); 3) a First-Year Digital Technology course (FYDT); 4) a First Year Oral Communication (FYOC) course.

The minimum passing grade to fulfill the EP requirement is C or better for (FYDT, FYOC, FYS or FYW).

To develop writing skills beyond the Eloquentia Perfecta foundation level, all students are required to complete two courses which meet the Eloquentia Perfecta Rhetorical standards for writing (EPW).

## The First Year Seminar

First Year Seminars will provide students with opportunities to work closely with a member of the faculty as they explore important intellectual questions and become immersed in the life of the mind through an exploration of a variety of academic topics. In the course of the seminar, students will become familiar with the University's Ignatian identity and mission and address important transition-to-college issues. Students will choose from seminars that address a wide variety of different topics, and which can function as a major course, a general education course or an elective. Each seminar will enroll no more than 18 students so as to maximize interaction with the professor and among students. The minimum passing grade to fulfill the FYS requirement is C or better.

## Skills Acquisition

In pursuing the goals of Eloquentia Perfecta, The University of Scranton requires that students demonstrate basic competencies in written, oral and digital communication before their junior year. These competencies may be demonstrated by students in one of the following ways:

1. Successful completion (a grade of C or better) of an Eloquentia Perfecta foundation course for each required skills area: for oral communication (FYOC), for digital technology (FYDT), and for basic writing (FYW).
2. Successful completion (a grade of C or better) of each skills course: COMM 100 or PHIL 217J for oral communication; WRTG 107 (or WRTG 105 & WRTG 106) for basic writing; and C/IL 102/102L, or C/IL 104 for digital technology.
3. An examination supervised by Communication Department faculty (for COMM 100), by English Department faculty (for WRTG 107) and by the Computer Information Literacy Advisory Board (for C/IL 102/102L). These examinations may be taken only once by freshmen and sophomores who have not taken the course in the same skill area.

Oral communication and basic writing skills can also be satisfied with INTD 117 - Writing, Research and Speaking.

## Subject Matter Mastery

### *Writing-Intensive Requirement (EPW):* Two courses, variable credit*

One of these courses should be in the major program of study. Writing-intensive courses may also fulfill other major, cognate and/or general education requirements. An advanced course in applied writing (WRTG 210, WRTG 211, WRTG 212, WRTG 218, WRTG 310) may be substituted for one of the two required writing-intensive courses..

### *Quantitative Reasoning (Q):* One course, 3 credits*

A mathematics based course as recommended by the major or chosen by the student in consultation with an advisor.

## *The Human Person and God*

- Theology/Religious Studies: Two courses, 6 credits

  T/RS 121 - (P) Theology I: Introduction to the Bible
  T/RS 122 - (P) Theology II: Introduction to Christian Theology

- Philosophy: Two courses, 6 credits

  PHIL 120 - Introduction to Philosophy
  PHIL 210 - Ethics

- Theology/Philosophy Elective (P): One course, 3 credits*

### *Nature*

- Natural Science (E): Two courses, 6-8 credits*

  Two courses in natural or physical sciences as recommended by the major or selected by the student after consultation with the advisor.

### *Culture*

- Humanities (CA, CF, CH, CL, CI): Four courses, 12 credits*

Courses in the humanities as recommended by the major or selected by the student after consultation with the advisor. Students must earn 6 credits in one humanities field: foreign language (CF), history (CH) or literature (CL). The remaining 6 credits must come from the other humanities fields, with no more than 3 credits coming from the fine arts (CA).

## Integration of Individual and Community

### *Personal*

- First Year Seminar: One course, 3 credits

### *Social*

- Social or Behavioral Science (S): Two courses, 6 credits*
  - Two courses in social or behavioral sciences as recommended by the major or selected by students after consultation with an advisor.
- Cultural Diversity (D): Two courses, 6 credits*
  - Two courses with strong cultural diversity content are required. These courses may also fulfill other major, cognate and/or general education requirements.

## Electives

Up to four courses, 12 credits. Students are encouraged to use their general education electives to add minors or second majors where possible. For some majors, specific courses have been recommended in the GE elective area by the home departments. Where no specific recommendations have been made by the home department, any course (with a limit of 3 credits of PHED activity courses) may be used as a free elective. Please refer to the department course listings in the catalog for complete Course Descriptions. If you have a question about how a specific course satisfies a requirement, please contact your advisor, academic advising center, dean's office or registrar's office.

## Notes(s):

*A listing of courses that includes general education designations, if any, may be found under Course Descriptions in the online undergraduate catalogs. The catalogs are accessed through the registrar's webpage at www.scranton.edu/registrar or directly at http://matrix.scranton.edu/catalogs. General education courses offered for a particular term may be located by accessing the online course schedule, "Course Schedule Search," through the registrar's webpage or directly at https://ssbprd.scranton.edu/appprd/syaclst.main, selecting a term, and then searching by course attributes. Not all courses are offered every registration cycle.

## General Education Summary

| Subject | Credits | Courses |
|---|---|---|
| *GE Required (with designated attributes)* | | |
| First Year Seminar | 3 | *Eloquentia Perfecta* First Year Seminars (FYS) |
| Writing<br>Level I<br>Level II | 3-6 | *Eloquentia Perfecta* First-Year (FYW) course or WRTG 105 and WRTG 106<br>Two courses designated *Eloquentia Perfecta* Rhetorical-Writing (EPW); one should be in the major |
| Public Speaking & Information Literacy | 3-6 | *Eloquentia Perfecta* First-Year Oral Communication (FYOC) course and First-Year Digital Technology (FYDT) course |
| Quantitative Reasoning | 3-4 | Courses designated with (Q) |
| Theology/Philosophy | 15 | T/RS 121 and T/RS 122, PHIL 120 and PHIL 210 and approved T/RS or PHIL Elective (P) |
| Natural Science | 6-8 | Courses designated with (E) |
| Humanities<br>History<br>Literature<br>Foreign Language<br>Art/Music/Theatre<br>Humanities/Interdisciplinary | 12 total<br>0-6<br>0-6<br>0-6<br>0-3<br>0-6 | Students must take 6 credits in one of the following areas:<br>History (CH), Literature (CL), or Foreign Language (CF). Note that 6 credits in CI, although allowed, do not fulfill this requirement. 6 additional credits from any of the remaining humanities areas,<br>but no more than 3 from Art/Music/Theatre (CA)). |
| Social/Behavioral Science | 6 | Courses designated with (S) |
| Cultural Diversity | 6 | Courses designated with (D) |
| **Total Required GE Credits** | **57-66** | |

| | | |
|---|---|---|
| | | |
| **Other Graduation Expectations (Electives)*** | | |
| Electives | 12 | Electives can vary, depending on the choice of major. |

**Students are required to take a minimum of 120 credits to graduate with a* baccalaureate *degree.*

# First Year Seminars

First Year Seminars will provide students with opportunities to work closely with a member of the faculty as they explore important intellectual questions and become immersed in the life of the mind through an exploration of a variety of academic topics. In the course of the seminar, students will become familiar with the University's Ignatian identity and mission and address important transition-to-college issues. Students will choose from seminars that address a wide variety of different topics, and which can function as a major course, a general education course or an elective. Each seminar will enroll no more than 18 students so as to maximize interaction with the professor and among students.

## List of Seminars

- 1st Yr. Seminar: ARTH 111X - (FYS,CA) Art, Time and Place
- 1st Yr. Seminar: BIOL 120X (E,FYS) - Explore NEPA
- 1st Yr. Seminar: BUAD 101X - (FYS,S) Ideas of Business
- 1st Yr. Seminar: CHS 100X - How the Jesuit Mission is Re-inventing the Helping Professions
- 1st Yr. Seminar: CHS 110X - (FYS) The Ignatian Imagination
- 1st Yr. Seminar: COMM 121X - Mythology in the Media
- 1st Yr. Seminar: COMM 125X - (FYS,S) Mass Media, Stereotypes, & the Future of the American Male
- 1st Yr. Seminar: COMM 127X - (FYS) Understanding the iGen Generation
- 1st Yr. Seminar: COMM 131X - Life...Backwards
- 1st Yr. Seminar: EDUC 160X - (FYS) Imagining Childhood
- 1st Yr. Seminar: ENLT 130X - (FYS,CL) Imagining College
- 1st Yr. Seminar: ENLT 131X - (FYS,CL) Living Magnificently
- 1st Yr. Seminar: ENLT 132X - (FYS,CL) Dystopian Visions
- 1st Yr. Seminar: ENLT 133X - (FYS) Marx, Freud, Literature
- 1st Yr. Seminar: ENLT 134X - (FYS,CL) Hardboiled Heroes & Gangsters
- 1st Yr. Seminar: ENLT 135X - (FYS,CL,D) Feminism and Jesuit Education
- 1st Yr. Seminar: ENLT 136X - (FYS) Shakespeare One Play
- 1st Yr. Seminar: ENLT 137X - (FYS, CL, D) Race & Social Justice
- 1st Yr. Seminar: ENLT 138X - (CL,FYS) An American Year
- 1st Yr. Seminar: ENLT 141X - (FYS,CL) Introduction to Irish Culture
- 1st Yr. Seminar: ENLT 142X - (FYS,CL,E) Latest & Greatest: Prize Winning Fiction, Poetry and Theatre
- 1st Yr. Seminar: ENLT 143X - Writing Science in Literature
- 1st Yr. Seminar: ENTR 100X - (FYS) Entrepreneurship
- 1st Yr. Seminar: HIST 109X - (FYS,CH) The Frontier in American History

- 1st Yr. Seminar: HIST 110X - (FYS) The Jesuits and American History to 1877
- 1st Yr. Seminar: INTD 100X - (E,S) Energy and Society
- 1st Yr. Seminar: INTD 113X - Ignatian Reflection and Practice
- 1st Yr. Seminar: INTD 119X - Making Meaning of 9/11
- 1st Yr. Seminar: INTD 120X - (FYS,E) Science and the Society
- 1st Yr. Seminar: INTD 122X - (S) Ignatian Citizenship and Contemporary American Politics
- 1st Yr. Seminar: MATH 110X - (FYS,FYDT) Mathematics for Social Justice
- 1st Yr. Seminar: PCPS 122X - (FYS) Foundations of Professional Integrity
- 1st Yr. Seminar: PHIL 121X - Faith and Reason
- 1st Yr. Seminar: PHIL 122X - In Search of Wonder
- 1st Yr. Seminar: PHIL 123X - (FYS) Intro to Philosophy: Pursuit of Happiness
- 1st Yr. Seminar: PHIL 124X - Preparing for Democratic Citizenship
- 1st Yr. Seminar: PHIL 125X - Thinking the City
- 1st Yr. Seminar: PHIL 127X - (FYS) Wellness and Food: An Introduction to Philosophy
- 1st Yr. Seminar: PHIL 128X - (FYS) Wellness, Wholeness and Care for the Self
- 1st Yr. Seminar: PHIL 130X - (FYS,P) Truth in Being
- 1st Yr. Seminar: T/RS 121X - The Bible: Sacred Story and Meaning
- 1st Yr. Seminar: THTR 131X (FYS,CA) - Round Corners: Visual & Literary Enigmata

# Options for Undeclared Freshmen

Students who are not yet ready to declare a major have the option of selecting one of three general areas of study – CAS Common Curriculum, KSOM Business Area and PCPS Common Curriculum – with the particular major to be determined by the end of the freshman year.

## CAS Common Curriculum – First Year

Undecided students who are interested in exploring one or more of the majors offered in the College of Arts and Sciences may enroll in the CAS Common Curriculum program. Students in this program take a combination of freshman level General Education courses and courses in potential majors. Specific courses are chosen in consultation with an academic advisor. In addition, CAS Common Curriculum students are invited to participate in a non-credit bearing "Choosing a Major Seminar." The seminar meets twice a week for the first half of the semester.

| | ***Descriptive Title of Course*** | ***Fall Cr.*** | ***Spr. Cr.*** |
|---|---|---|---|
| | | | |
| GE BASIC SKILLS | Public Speaking*/Composition*/Computing & Information Literacy* | 3 | 3 |
| GE PHIL or T/RS | T/RS 121: (P) Theology I: Introduction to the Bible or PHIL 120: Introduction to Philosophy | 3 | 3 |
| MAJOR | Select from introductory classes of any major | 3-4.5 | 3-4.5 |
| MAJOR | Select from introductory classes of any major | 3-4.5 | 3-4.5 |

| | | | |
|---|---|---|---|
| MAJOR | Select from introductory classes of any major | 3-4.5 | 3-4.5 |
| INTD | First Year Seminars | | |
| | | **15-19.5** | **15-19.5** |

[1]*The selection of a First Year Seminar is likely to fulfill requirements both for the First Year Seminar and a General Education Requirement. Thus, the First Year Seminar will not add to the total credits for the semester. Talk with your advisor if you have any questions.*

**An approved 3-credit EP Foundation Course may be substituted for COMM 100 and C/IL 102/102L-C/IL 104. In this case, the total needed for graduation in this major may be reduced. Consult with your advisor if you have questions.*

## KSOM Business Common Curriculum – First Year

| | ***Department and Number - Descriptive Title of Course*** | ***Fall Cr.*** | ***Spr. Cr.*** |
|---|---|---|---|
| | | | |
| MAJOR (GE S/BH) | ECO 153 - (S) Principles of Microeconomics – ECO 154 - (S) Principles of Macroeconomics | 3 | 3 |
| BUS CORE | BUS 150 - Career and Professional Development | 1 | |
| GE WRTG–SPCH | WRTG 107 - (FYW) Composition – BUS 140 - (FYDT,FYOC) Business Information & Oral Proficiency | 3 | 3 |
| GE PHIL | PHIL 120 - Introduction to Philosophy | 3 | |
| GE T/RS | T/RS 121 - (P) Theology I: Introduction to the Bible | | 3 |
| GE QUAN | MATH ELECT - Math Option (two courses) | 3 | 3 |
| GE HUMN | HUMN ELECT - Humanities Elective | 3 | 3 |
| GE FSEM | First Year Seminars[1] | | |
| | | **16** | **15** |

[1]*The selection of a First Year Seminar is likely to fulfill requirements both for the First Year Seminar and a General Education Requirement. Thus, the First Year Seminar will not add to the total credits for the semester. Talk with your advisor if you have any questions.*

## PCPS Common Curriculum – First Year

For students considering health care or education as a major, the Panuska College of Professional Studies has a program designed to provide an exploratory freshman year for those who wish to defer declaring their choice of major.

| | ***Department and Number - Descriptive Title of Course*** | ***Fall Cr.*** | ***Spr. Cr.*** |
|---|---|---|---|
| GE WRTG | WRTG 107 - (FYW) Composition | 3 | |

| | | | |
|---|---|---|---|
| GE PHIL–T/RS | PHIL 120 - Introduction to Philosophy – T/RS 121 - (P) Theology I: Introduction to the Bible | 3 | 3 |
| GE NSCI | BIOL 110 -111 - (E) Human Anatomy and Physiology[1] | 4 | 4 |
| GE S/BH | PSYC 110 - (S) Fundamentals of Psychology | 3 | |
| GE EP | EDUC 102 - (FYOC, FYDT) Educational Skills in a Global Society | | 3 |
| GE HUMN | HUMN ELECT - Humanities Elective | | 3 |
| GE FSEM | First Year Seminars[2] | | |
| MAJOR | ELECT Elective or Core Course | 3 | 3 |
| | | **16** | **16** |

[1]BIOL 110 -111 indicating those courses are given to those interested in NURS, OT, KNES, or HPRO.

[2]*The selection of a First Year Seminar is likely to fulfill requirements both for the First Year Seminar and a General Education Requirement. Thus, the First Year Seminar will not add to the total credits for the semester. Talk with your advisor if you have any questions***.**

# PROGRAMS OF EXCELLENCE

## Special Jesuit Liberal Arts Honors Program (SJLA)

Daniel Haggerty, Ph.D., *Director*

Available by invitation to incoming freshmen, the Special Jesuit Liberal Arts Honors Program provides an alternate way of fulfilling General Education requirements. Students not selected initially may apply for admission as second semester freshmen or as sophomores. Courses for SJLA program participants, who are drawn from all different majors, attempt to foster skills that University graduates have found particularly useful in law, medicine, business and graduate school.

### SJLA Program Outcomes:

1. Students will display a comprehension of the history of and major texts in Western philosophy, theology, and literature.
2. Students will demonstrate *eloquentia perfecta* in speech and writing, stemming from a mastery of the elements of critical thinking, reading, and listening.
3. Students will show evidence of personal formation - a thoughtful sense of their relationship to themselves, to others, and to God- and of the role of cultivated community in personal growth, discernment, and life-long learning.
4. Students will demonstrate, based upon study and on personal experience, the ideal of being men and women for others.

Students are expected to become involved in extracurricular and service activities on campus if they wish to remain in SJLA. Many participants also study abroad, earn a double major in philosophy, and join the Honors Program if they apply and are accepted during their sophomore year. Above all, participants are expected to seek out and interact with their professors and other students in this community of learning, which is under the direction of Daniel Haggerty, Ph.D.

### Electives

SJLA students should use their seven or eight elective courses to study history, mathematics, the natural and social sciences, and languages.

## SJLA Curriculum

| | *Department and Number - Descriptive Title of Course* | *Fall Cr.* | *Spr. Cr.* |
|---|---|---|---|
| **First Year** | | | |
| | MAJOR/COGNATE - Major/Cognate | 6-9 | 6-9 |
| | ELECT - Elective — ELECT – Elective | 3 | 3 |
| | PHIL 120J - Introduction to Philosophy — PHIL 210J - Ethics | 3 | 3 |
| | T/RS 121J - (P) Theology I: Introduction to the Bible[1] — T/RS 122J - (P) Theology II: Introduction to Christian Theology | 3 | 3 |
| | First Year Seminar[2] | | |
| | | **15-18** | **15-18** |
| **Second Year** | | | |
| | MAJOR/COGNATE - Major/Cognate | 9-12 | 9-12 |
| | ELECT - Elective — ENLT 265J - The American Literary Experience | 3 | 3 |
| | PHIL 217J - (FYW,FYOC) The Trivium — PHIL 311J - Metaphysics | 3 | 3 |
| | | **15-18** | **15-18** |
| **Third Year** | | | |
| | MAJOR/COGNATE - Major/Cognate | 9 | 9 |
| | ELECT - Elective — ELECT-Elective | 3 | 3 |
| | INTD 110J - The Jesuit Magis — ELECT - Elective | 3 | 3 |
| | PHIL 322J - Philosophy of Conscience — PHIL 401J - Philosophy, Politics, Economics | 3 | 3 |
| | | **18** | **18** |
| **Fourth Year** | | | |
| | MAJOR – Major | 6 | 6 |
| | ELECT – Elective | 3 | 3 |
| | PHIL 435J - Philosophy of Self and Other — PHIL 413J - The End of Philosophy | 3 | 3 |
| | ENLT 423J - (CL) Classics of Western Literature — ELECT - Elective | 3 | 3 |
| | | **15** | **15** |
| | **Total: 126-138 Credits (depending on major)** | | |

[1]*SJLA students must take T/RS 121J which fulfills their First Year Seminar requirements.*

[2]*Some majors may also require a student to take a First Year Seminar in their own discipline. Talk with your advisor if you have any questions.*

## Course Descriptions

- ENLT 265J - The American Literary Experience
- ENLT 423J - (CL) Classics of Western Literature
- INTD 110J - The Jesuit Magis
- PHIL 120J - Introduction to Philosophy
- PHIL 210J - Ethics
- PHIL 217J - (FYW,FYOC) The Trivium
- PHIL 311J - Metaphysics
- PHIL 322J - Philosophy of Conscience
- PHIL 401J - Philosophy, Politics, Economics
- PHIL 413J - The End of Philosophy
- PHIL 435J - Philosophy of Self and Other
- T/RS 121J - (P) Theology I: Introduction to the Bible
- T/RS 122J - (P) Theology II: Introduction to Christian Theology

# Honors Program

Andrew LaZella and Jill A. Warker *Co-Directors*

The Honors Program supports The University of Scranton's tradition of excellence and its dedication to freedom of inquiry and personal development. It challenges outstanding students with a rigorous education that stresses independent work and intense engagement with faculty and other Honors students both in and out of the classroom. The individualized attention and freedom to explore provided by the program aim to increase students' intellectual skills, self-reliance and personal accountability.

The Honors curriculum conforms with and enriches existing University course requirements. It also supports students as they move into increasingly sophisticated work. Writing-intensive, discussion-based Honors courses, which vary from year to year, satisfy general education requirements. Honors tutorials both in and out of a student's major engage students with texts on an individually directed basis. The junior seminar provides opportunities for students to lead and participate in discussions of articles on a wide range of contemporary issues. A student's work in the Honors Program culminates in a year-long senior project. The student may propose either a research or a creative project for this significant piece of independent work. Students present the plans for this project to their peers in a senior seminar and defend the completed project before their mentor and two other faculty members. The final version of the project is catalogued in the Weinberg Library.

## *Requirements*

Honors Students must take one course, three tutorials and three one-credit seminars; they must also complete a year-long, 6-credit project. Honors courses count toward general education requirements. Honors tutorials can count toward major, minor, or cognate requirements. Those who participate in three or more programs of excellence (e.g., Honors, SJLA, Magis, or Business Leadership Program) or who spend a full year abroad have the option of completing only two tutorials, one in the student's major and one out of the major or in a second major.

There is no extra tuition for Honors work. Honors courses, tutorials and projects carry only ordinary tuition. Honors seminars, the only Honors work that does not satisfy ordinary graduation requirements, carry no tuition charge. Honors students may take between 12 and 21 credits at the flat rate.

## *Admission to the Honors Program*

Applications are accepted every fall from those students who have at least 18 hours of college credit and who expect to graduate after three more years of work at the University. Applicants must ordinarily have at least a 3.3 GPA; a minimum of a 3.5 GPA (cum laude) is required for graduation in the program. The number of spaces in the program is limited, and admission deliberations may take into consideration the applicant's high school and college records, SAT scores, application, recommendations, and interviews. For further information contact Drs. Andrew LaZella and Jill Warker, Co-Directors of the Honors Program

### Second Year

***Fall:*** Application

***Spring:*** HONR 187H - Honors Sophomore Seminar

### Third Year

***Spring:*** HONR 387H - Honors Junior Seminar

### Fourth Year

***Fall*:** HONR 487H - Honors Senior Seminar

**Additional Requirements of the Honors Program that Students will take in Consultation with their Advisors and the Director of the Honors Program:**

*HONR 287H - Honors Keystone Course Course,* offered every semester. *The GE Designations of these courses vary.*

HONR 387H - Honors Junior Seminar, offered every spring. (Students in pre-med concentrations would likely take this as fourth year students so as not to have it conflict with MCAT preparations. Students studying abroad might take it as sophomores. Others will likely take it as juniors.)

Tutorials: Each student will take 3-5 tutorials, at least one in the major and at least one outside it.

DEPT 487H-489H - Honors Project - Research Project: Students will ordinarily take this two-semester sequence in their 7th and 8th semesters and will defend their projects after their second semester of the project

## Course Descriptions

HONR 187H - Honors Sophomore Seminar

DEPT 385H-389H - Honors Tutorial

HONR 287H - Honors Keystone Course

HONR 387H - Honors Junior Seminar

DEPT 487H-489H - Honors Project

HONR 487H - Honors Senior Seminar

# Business Honors Program

Admission to the Business Honors Program is limited to a small number of exceptional students who are chosen on a competitive basis. In this program students will undergo four years of honors studies in the areas of economics, entrepreneurship, operations management, accounting, finance, international business, marketing, and management. Students will be held to the highest academic standard, and upon completion of the program, students will graduate with the distinguished achievement of honors

Students will be required to complete an honors thesis and two of the following:

- An Internship
- Study Abroad
- A Journal Publication

In addition to this requirement, students will also be required to complete annual community service and passport program activity requirements.

Business Honors Program students need to fulfill the same course requirements as the other students of their major/minor. The only difference is that they must take 12 of the following business courses open only to them

## Business Honors Curriculum

| *Department and Number - Descriptive Title of Course* | *Credits* |
|---|---|
| **First Year** | |
| BUS 140K - (FYDT,FYOC) Business Information & Oral Proficiency | 3 |
| ECO 153K - (S) Principles of Microeconomics | 3 |
| ECO 154K - (S) Principles of Macroeconomics | 3 |
| **Second Year** | |
| ACC 251K - Financial Accounting I | 3 |
| ACC 252K - Financial Accounting II | 3 |
| ACC 253K - Financial Accounting | 3 |
| ACC 254K - Managerial Accounting | 3 |
| MGT 251K - Legal Environment of Business | 3 |
| STAT 251K - (Q) Statistics for Business I | 3 |
| STAT 252K - (Q) Statistics for Business II | 3 |
| FIN 251K - Introduction to Finance | 3 |
| **Third Year** | |
| MKT 351K - Introduction to Marketing | 3 |
| OIM 351 - Introduction to Business Analytics | 3 |
| OIM 352K - Introduction to Operations Management | 3 |
| MGT 351K - Principles of Management I | 3 |
| MGT 352K - Principles of Management II | 3 |
| ECO 351 - Environment of International Business | 3 |
| **Fourth Year** | |
| OIM 471K - Business Information Management | 3 |
| MGT 455K - Business Policy and Strategy | 3 |

# Business Leadership Honors Program

The Business Leadership Honors Program is designed to foster the development of distinguished students into the leaders of tomorrow. The program is grounded in the Jesuit ideals and promotes the principle of cura personalis through providing

personalized guidance and direction in development of the entire person. The program challenges members in the Jesuit tradition of the magis to be and do more in all aspects of their lives. Through completion of the program students will earn a minor in Leadership while enjoying unique classroom and practical learning experiences along the way. Employers are increasingly including the demonstration of leadership characteristics in job requirements and qualifications. Business Leadership students are at an advantage having completed a program focused on the understanding and practical application of leadership theories and the development of personal leadership abilities. Further, the program emphasizes the ideal of eloquentia perfecta which stresses the development of the critical leadership skill of strong communication. The rigorous curriculum and small group size promotes a challenging, yet rewarding learning environment where friendships and professional relationships are developed. Courses are taught by top faculty in their respective disciplines who emphasize the linkages between course content and leadership.

The program stresses ethics, service, freedom of inquiry, and personal development. The leadership lessons that Business Leadership students learn in the classroom are supplemented and reinforced by interactions with business executives, mentors, and service projects. There is a focus on soft skill development through networking events and interactions with industry leaders during executive visits. Students gain experience working within a team during annual consulting projects which are presented to distinguished faculty and alumni. Student testimonials cite the program as having a significant positive impact on early career development. Business Leadership graduates have been successful in obtaining internships and on average receive higher starting salaries than their peers at The University of Scranton. Successful completion of the program with a GPA of 3.5 or above will entitle the student to graduate with honors and receive a minor in leadership.

Application into the Business Leadership Honors Program is offered to eligible sophomores during the spring semester. Candidates must have a minimum 3.0 Overall GPA for consideration. The selection process for The Business Leadership Honors Program is as follows:

- Students may attend an information session about Business Leadership and receive application materials.
- Students complete questionnaire detailing past activities, awards, service, interests, etc. (Resumes are accepted in addition to questionnaire form).
- Students submit 3 letters of recommendation.

15 students are admitted into the Business Leadership Honors Program each year.

| **Third Year** | |
|---|---|
| ***Fall:*** | BLDR 351 - Principles of Management |
| | BLDR 385 - Self-Assessment Business Leadership Seminar #1 |
| | |
| ***Spring:*** | BLDR 355 - Business Ethics |
| | BLDR 386 - Empowerment Business Leadership Seminar #2 |
| **Fourth Year** | |
| ***Fall:*** | BLDR 455 - Policy and Planning |
| | BLDR 485 - Mentorship Business Leadership Seminar #3 |
| | |
| ***Spring:*** | BLDR 484 - Eloquentia Negotialis |
| | BLDR 486 - Senior Project Business Leadership Seminar #4 |

## Course Descriptions

Although three of the first four courses are required of all business students, sections designated by BLDR are restricted to students in the Business Leadership Honors Program.

Students who take all of the above classes, including BLDR 487 will receive a minor in the Business Leadership Honors Program.

- BLDR 351 - Principles of Management
- BLDR 355 - Business Ethics
- BLDR 385 - Self-Assessment Business Leadership Seminar #1
- BLDR 386 - Empowerment Business Leadership Seminar #2
- BLDR 455 - Policy and Planning
- BLDR 484 - Eloquentia Negotialis
- BLDR 485 - Mentorship Business Leadership Seminar #3
- BLDR 486 - Senior Project Business Leadership Seminar #4
- BLDR 487 - Successful Consulting: Theory & Practice

# Interdisciplinary Programs and Concentrations

## Asian Studies Concentration

*Ann A. Pang-White, Ph.D., Director*

With the role of Asia on the world stage becoming increasingly prominent, a better understanding of Asian cultures is an indispensable element for world citizenship and leaders of tomorrow. Any student with an interest in entering governmental services, law, business, education, journalism, medicine, human resources, and counseling, etc., will open up new opportunities by adding Asian Studies Concentration to their traditional career tracks.

Asian Studies at the University of Scranton is an interdisciplinary program that aims to provide students with the vital understanding of this culturally diverse and vibrant region of the world that includes China, Japan, Korea, Taiwan, Vietnam, Thailand, Indonesia, Singapore, India, the Philippines, etc. The program seeks to engage students in the study of Asia through courses drawn from multiple departments across the University. The concentration is open to all majors. Cross-listed Asian Studies courses may also fulfill major, minor, cognate, and general education requirements. Concentration requirements are as follows:

- 24 credits of course work.
- 9 credits in the area of core emphasis which includes language study and a foundation course. Another 9 credits in Area Studies and 6 credits in infused courses. Students who take more than 9 credit courses in the Area Studies may reduce their 6 credits of infused-courses load as long as they meet other program requirements.
- One-year (2 courses, 6 credits) language study at appropriate level in one Asian language. Placement in a previously studied language will be determined by placement testing at the University's Language Learning Center. To maintain a balance of subjects studied and to facilitate a broader understanding of the region, ordinarily no more than12 credits from Asian language studies can count toward the 24 credits program requirement unless special circumstance occurs. When this happens, the student must consult with the program director for approval.
- Students who study abroad or take courses at another higher education institutions with an emphasis in Asian Studies may petition to substitute courses and are required to speak to the director of the program prior to completing the credits they wish to substitute.
- At least 12 of the 24 credits must be taken at the University of Scranton.

Prerequisite requirements for some courses if applicable, students should consult the University catalogue for these requirements.

## Core Emphasis:

| Choose 3 Courses | | Total Hours (9) |
|---|---|---|
| **One-Year Asian Language Study (choose 2 courses)** | **Hours (6)** | |
| CNS 101 - (CF) Beginning Chinese | 3 | |
| CNS 102 - (CF) Beginning Chinese | 3 | |
| CNS 211 - (CF) Intermediate Chinese | 3 | |
| CNS 212 - (CF) Intermediate Chinese | 3 | |
| JPN 101 - (CF) Beginning Japanese | 3 | |
| JPN 102 - (CF) Beginning Japanese | 3 | |
| JPN 211 - (C,F,D) Intermediate Japanese | 3 | |
| JPN 212 - (C,F,D) Intermediate Japanese, **or other Asian Languages as approved** | 3 | |
| | | |
| **Foundation Course* (choose 1 course)** | **Hours (3)** | |
| HIST 242 - (CH,D) Modern East Asia or PS 221 - Politics of Southeast Asia | 3 or 3 | |
| *Students who take both HIST 242 and PS 221 may reduce their area studies course load to 6 credits | | |

## Area Studies:

| Choose 3 courses+ | Hours | Total Hours (9) |
|---|---|---|
| ARTH 108 - Asian Art and Cultures | 3 | |
| BIOL 295 (E,D) Philippines Organisms and Ecosystems* | 3 | |
| CNS 211 - (CF) Intermediate Chinese (eligible for Area Studies only for students entering at CNS 100 level) | 3 | |
| CNS 212 - (CF) Intermediate Chinese (eligible for Area Studies only for students entering at CNS 100 level) | 3 | |
| CNS 311 - (CF,D) Advanced Chinese | 3 | |
| CNS 312 - (CF,D) Advanced Chinese | 3 | |
| HIST 243 - Modern Central Asia | 3 | |
| HIST 244 - (CH,D) History of Modern Japan | 3 | |
| HIST 245 - (EPW,CH,D) History of Modern China | 3 | |
| HIST 246 - China in the 20th Century & Beyond | 3 | |
| HIST 379 - (CH,D) The United States and China: From the Eighteenth Century to the Present | 3 | |
| IB 476 - U.S.-East Asia Trade and Investment | 3 | |
| IB 478 - Business in China | 3 | |
| JPN 211 - (C,F,D) Intermediate Japanese (eligible for Area Studies only for students entering JPN 100 level) | 1.5 | |
| JPN 212 - (C,F,D) Intermediate Japanese (eligible for Area Studies only for students entering at JPN 100 level) | 1.5 | |

| | | |
|---|---|---|
| PHIL 225 - (P,D) Asian Philosophy | 3 | |
| PHIL 226 - (P,D) Chinese Philosophy | 3 | |
| PHIL 232 - (P,D) Women in Chinese and Western Philosophies | 3 | |
| PHIL 295 - (P,D) Chinese Philosophy and Culture in Contemporary Taiwan | 3 | |
| PHIL 384 Confucianism and the Modern World | 3 | |
| PHIL 419 - (P,D) Philosophy East and West | 3 | |
| PS 328 - (D) Modern China | 3 | |
| PS 332 - (D) Modern Japan | 3 | |

## Infused Course:

| Choose 2 courses+ | Hours | Total Hours (6) |
|---|---|---|
| ARTH 313 - (D) Art of Islam | 3 | |
| COMM 228 - (D) Intercultural Communication | 3 | |
| ECO/IB 351 - (D) Environment of International Business | 3 | |
| ECO/IB 375 - International Economics | 3 | |
| ECO 465 - Development Economics | 3 | |
| ENLT 348 - (CL,D) Colonial and Postcolonial Fiction | 3 | |
| HIST 130 - (CH,D) World History I | 3 | |
| HIST 131 - (CH,D) World History II | 3 | |
| HIST 227 - (D) The Civilization of Islam | 3 | |
| HRS 331 - Globalization and Human Resource Management | 3 | |
| MKT/IB 475 - (D) International Marketing | 3 | |
| PS 313 - (D) Classical Political Ideas | 3 | |
| T/RS 219 - (P,D) The Religions of the World | 3 | |
| | | **Total 24++** |

+Students who take more Area Studies courses may reduce their course load in Infused Courses.
++ A major in Asian Studies is possible by taking 4 more courses (including a capstone project) and by declaring an individualized major no later than the second semester of the sophomore year or four full semesters before graduation. Consult "Individualized Major" section under College of Arts and Sciences in the undergraduate catalog for more information.

## Available Exchange Programs and Study Abroad Programs:

- The Beijing Center for Chinese Studies, China
- University of Hyderabad, India
- Khon Kaen University, Thailand
- Fu Jen Catholic University, Taiwan
- National Chengchi University, Taiwan
- National Taiwan University, Taiwan

- Ho Chi Minh International University, Vietnam
- National University of Singapore, Singapore
- Ateneo de Manila, the Philippines
- Sogang University, South Korea
- Yonsei University, South Korea
- Ehwa Woman's University, South Korea
- Sophia University, Japan
- Al-Farabi Kazakh National University, Kazakhstan

# Business Analytics Concentration

A student is required to take 21 credits for the Business Analytics concentration: three business core courses – OIM 471, STAT 252 and OIM 351. Four electives are also required.

| Business Analytics - Concentration | |
|---|---|
| | |
| Core (all required) | OIM 471 - Business Information Management |
| | STAT 252 - (Q) Statistics for Business II |
| | OIM 351 - Introduction to Business Analytics |
| | |
| Electives (all required) | EC 362 - Database Management Systems |
| | OIM 444 - Business Forecasting Models |
| | OIM 463/EC 463 - Data Mining |
| | EC 261 - Introduction to Business Programming |
| *21 credits are required for the Business Analytics Concentration | |

# Catholic Studies Program

*Patrick M. Clark Ph.D., Co-Director*
*Nathan Lefler, Ph.D., Co-Director*

The Catholic Studies Program seeks to provide every student with the opportunity to engage the Catholic tradition in a deeper and broader way than the typical program of studies can provide. Accordingly, this program casts a wide net over what the Catholic tradition and heritage are and how they interface with human endeavor. Catholic Studies is a specialization built around a multi-disciplinary core that provides a systematic way of integrating the many facets of Catholic tradition with various academic disciplines. Because Catholic tradition is integrally linked to virtually every subject, it can provide a natural integrative coherence for nearly all majors and areas of studies. Thus the CSP provides a good means of organizing many general education requirements into a unified concentration; it is an attractive academic program for rounding out a student's Catholic higher education.

The Catholic Studies Program consists of both inter- and uni-disciplinary courses that provide opportunities to study the Catholic heritage in the ancient and the contemporary Church alike, and give access to the rich forms in which it has been expressed in

literature, art, architecture, music, history, philosophy, science, etc. Catholic Studies welcomes all interested students whether or not they are Catholic. It is compatible with all majors. Ideally, students will enter in their freshman year, but may enter at any time. Courses in the program will meet either general education, major, minor or cognate requirements. All non-CSP students are welcome in any course(s) in the program, but CSP students are given enrollment preference.

All courses taught in the Catholic Studies Program will seek to promote appreciation of the Catholic tradition by being faithful to the Church's apostolic teaching. Courses will also encourage students (1) to integrate faith and academics; (2) to study the Catholic Tradition in an intellectually rigorous way; (3) to assess human intellectual activity and experience in the light of the Catholic faith; and (4) to examine the experience of Catholics in history, politics, various social groups, philosophical and religious movements, and/or science and technology.

The concentration consists of 18 credits: one Catholic Studies designated course in T/RS, one Catholic Studies designated course in PHIL, and four electives with Catholic Studies designation. Students may build their studies on their majors and interests. Students are invited to petition for readers, tutorials and independent studies that meet program standards. Students may likewise seek permission for courses not cross-listed to count for credit, provided they are eligible to do significant Catholic Studies work in them.

## Required Courses:

- One Catholic Studies designated course in T/RS
- One Catholic Studies designated course in PHIL

## Elective Courses: (choose four)

(Examples of courses that have received Catholic Studies credit in the past.)

- INTD 210 - (P, E) Catholic Bioethics: Biotechnology and Human Dignity
- INTD 333 - (CA,P) The Bible in Image and Text
- ARTH 117 - Early Christian and Byzantine Art
- ARTH 118 - Medieval Art: Romanesque and Gothic
- HIST 217 - (CH) History of American Catholicism
- HIST 230-231 - Medieval History

  or

- HIST 319-320 - Byzantine Civilization
- HIST 324 - The Reformation
- HEBR 101-102 - (CF) Biblical Hebrew
- PHIL 212 - (P) Medical Ethics *
- PHIL 221 - (P) Medieval Philosophy
- PHIL 229 - (P,D) Philosophy of Religion *
- PHIL 234 - (P) Existentialism *
- PHIL 411 - (P) Thomas Aquinas: Philosophy and Controversy
- PHYS 100 - (E) History of Science and Technology
- PHYS 105 - (E) Mind and the Evolutionary Universe
- T/RS 213 - (P) American Catholic Thought
- T/RS 214 - (P) Inside the Catholic Tradition
- T/RS 222 - (P) Introduction to Christian Worship
- T/RS 225 - (P) A Theology of Marriage

- T/RS 227 - (P) Biomedical Ethics *
- T/RS 230 - (P) Moral Theology *
- T/RS 231 - (P) God and the Good Society *
- T/RS 232 - (P) Catholic Social Thought
- T/RS 318 - (P) The Apocalypse of St. John
- T/RS 320 - (P) Early Christian Writers
- T/RS 324 - (P) Jesuit Spirit
- T/RS 327 - (D,P) Spiritual Classics
- T/RS 335 - Virtue, Vice and Christian Ethics *

## Additional Information:

*only for certain sections

*For an updated list of courses, please see the Director.*

# Environmental Studies Concentration

Jessica M. Nolan, Ph.D., *Director*

The Environmental Studies Concentration is an interdisciplinary program that introduces students to a diversity of perspectives on the environment and sustainability. The concentration will enable students to understand the complexity of environmental problems by exploring a wide variety of approaches, both theoretical and practical. This will prepare students to critically evaluate the causes and solutions of today's environmental problems.

Courses for the Environmental Studies Concentration are drawn from departments across the University and are open to students in all majors (to enroll, students must see the Director of Environmental Studies). The concentration consists of six courses (18 credits), one each from natural science, social science, humanities, and business/professional studies. The remaining two courses can be from any of the areas. Many of the cross-listed courses also fulfill major, minor, cognate, or general education requirements. Students are also encouraged to engage in extracurricular activities that will enrich their classroom experiences.

Students may, with the approval of the Environmental Studies Program Steering Committee, substitute an honors tutorial or thesis, study abroad courses, one reader, or a non-cross-listed course for an environmental studies course elective in cases where significant graded requirements are completed in ways that meet the course criteria for environmental studies. Students seeking such substitutions should seek advice from the Director of Environmental Studies, preferably before completing the credits they wish to substitute.

## Environmental Studies Courses

Some of the listed courses have prerequisites; please consult departmental descriptions.

### *Natural Science*

- BIOL 195 - (E) Tropical Biology
- BIOL 204 - (E,D) Environmental Issues in Latin America
- BIOL 255 - Animal Nutrition and Metabolism (S)
- BIOL 273 - Marine Ecology (MO)
- BIOL 274 - Conservation Biology (MO)
- BIOL 371 - (EPW: Lab only) Ecology (MO)
- BIOL 374 - Vertebrate Biology (MO)

- BIOL 473 - Estuarine Ecology (MO)
- CHEM 340 - Environmental Chemistry
- NSCI 201 - (E) Science and the Human Environment
- PHYS 106 - (E) Energy and the Environment
- PHYS 112 - (E) Natural and Manmade Disasters
- PHYS 114 - Solar Electricity

### *Social Science*

- PS 230 - (S) Environmental Laws and Regulations
- PS 231 - (S) Environmental Policy Process
- PSYC 239 - Environmental and Conservation Psychology
- SOC 230 - Sociology of Globalization

### *Humanities*

- LA/WS 395 - (S,D) Women and Development in Latin America
- PHIL 213 - (P) Environmental Ethics
- T/RS 331 - (P) God and the Earth
- HIST 350 - (CH) American Environmental History

### *Business/Professional Studies*

- MKT 477 - Sustainable Marketing
- ECO 303 - (S) The Economics of Environmental Issues

The remaining two courses can be from any of the four areas. Students are also required to complete a non-credit bearing reflection assignment prior to graduation.

# Italian Studies Concentration

Josephine M. Dunn, Ph.D., *Co-Director*
Virginia A. Picchietti, Ph.D., *Co-Director*

The Italian Studies Concentration is designed to advance students' understanding of diverse aspects of Italian culture and society. The concentration is open to all majors and consists of both interdisciplinary and single-discipline courses drawn from various academic departments at the University. It encourages both breadth and depth in the study of Italian culture and society; its goal is to cultivate a broadly based knowledge of Italian civilization and its contributions to the specific fields comprising the concentration. At the same time, courses in the concentration will fulfill general education requirements with an emphasis on cultural diversity and on a writing-intensive curriculum.

The curriculum is designed to accomplish the following: provide a focused study of Italian culture and society; develop oral and written skills; and develop practical skills applicable to trips to Italy and in career fields. The concentration requires the successful completion of seven courses, three of which are required courses and four of which are to be chosen from an approved list of electives. Students will be required to complete successfully two courses of Italian language as well as the Italian Studies Seminar. Students will enter the language level they can master (determined in consultation with the directors and the language department), and will fulfill the language requirement by successfully completing two of the approved language courses.

## Required Courses

Students will choose two language courses (at appropriate level) and seminar.

- ITAL 101-102 - (CF) Beginning Italian

- ITAL 211-212 - (CF,D) Intermediate Italian
- ITAL 311-312 - (CF,D) Advanced Italian Composition and Conversation
- Italian Studies Seminar (a specific topics course whose content varies according to the interests of students and faculty. Offered every two years.)

## Elective Courses (choose four)

- ARTH 214 - Renaissance Art in Italy, 1200-1480
- ARTH 216 - (CA) Michelangelo and His World
- ARTH 217 - Leonardo Da Vinci
- ARTH 218 - The Age of Rembrandt
- ARTH 295 - (D,CA) Travel Seminar
- ENLT 366 - Dante's Divine Comedy
- HIST 240 - (D) Modern Italy
- HIST 296 - (D,CH) Italian History and Heritage
- HIST 323 - The Renaissance
- LIT 221E/221F - (EPW,CL,D) Italian Women's Writing

  or

- LIT 223E/223F - (D) Italian Cinema

  or

- LIT 325E/325F - Gender in Italian Cinema
- MUS 217 - Opera
- MUS 284 - Special Topics *(if applicable)*
- NSCI 103 - (E) The Ascent of Man
- PHIL 221 - (P) Medieval Philosophy
- PHIL 222 - (P) Modern Philosophy I

# Judaic Studies Concentration

Marc B. Shapiro, Ph.D., *Director*

Judaic Studies is a recognized field of study at universities throughout the world. At a Catholic and Jesuit university Judaic Studies has special significance. In its *Declaration on the Relation of the Church to Non-Christian Religions*, the Vatican Council declared: "Since the spiritual patrimony common to Christians and Jews is thus of such magnitude, the sacred Synod wants to foster and recommend a mutual knowledge and respect which is the fruit, above all, of biblical and theological studies as well as of fraternal dialogues." The Judeo-Christian tradition has its roots in ancient Judaism, and, crucial for understanding the development of Christianity itself is an understanding of its Judaic roots. It is also important that students at a Jesuit university have opportunities to explore Judaism as a religion with value and legitimacy in its own right, and not merely a precursor to Christianity.

The program is intended to meet the following goals:

- To bring knowledge of Judaism, in its various facets, to the student.
- To develop in the student habits of clear, critical thinking within the framework of the accepted norms of scholarship.

- To introduce the student to reading critically the great works of Judaism.
- To foster Jewish-Christian dialogue in the ecumenical spirit of Vatican II.

Judaic Studies courses range from those in biblical literature (with a focus on Judaic elements, such as interpretations of the ancient rabbis and the Dead Sea Scrolls) through Jewish ethics, literature, history, philosophy, and Hebrew language. Courses for the Judaic Studies Concentration are drawn from a variety of departments, and all of these courses may be used for general-education requirements. A number of them also satisfy the cultural diversity requirement. The concentration consists of 18 credits as outlined below.

## Required Course (3 credits)

- T/RS 336 - (P,D) The Jewish Way of Life

## Elective Courses (15 credits)

- ENLT 360 - (D,CL) Jewish Literature
- HEBR 101-102 - (CF) Biblical Hebrew
- INTD 209 - (D) The Holocaust
- PHIL 340 - (P,D) Philosophy and Judaism
- PHIL 414 - (D,P) Philosophy of Emmanuel Levinas
- T/RS 210 - (P,D) Jews, Christians, and the Bible
- T/RS 217 - (P,D) The Holocaust in Context: History and Theology
- T/RS 310 - (P) The Heart of the Old Testament
- T/RS 311 - (P) Job and the Psalter
- T/RS 312 - (P) The Great Prophets
- T/RS 319 - (P,D) Judaism in the Time of Jesus

# Legal Studies Concentration

Matthew H. Meyer, Ph.D., Director

Legal Studies is an interdisciplinary concentration that provides students interested in studying law at the undergraduate level as well as students preparing for law school with a curriculum that can both advance participants' understanding of the law and develop the skills necessary for success in law school. The concentration also seeks to instill in students a sense of justice and a commitment to the common good that is consistent with the Jesuit and Catholic mission of the University. At the heart of the curriculum is an introductory course—Legal Studies Fundamentals (INTD 115)—designed with these aims of the concentration in mind. In addition to this introductory course, four more courses must be chosen from a list of offerings that align with the aims of the program and can be tailored to meet the needs of the individual student.

Because of its dual nature, the Legal Studies Concentration places a premium on flexibility in course selection for enrolled students. The required course, Legal Studies Fundamentals (INTD 115), will use law and law-related topics to enhance students' skills in reading, writing, and logical analysis, and so it will meet the needs of both pre-law students as well as students interested in learning more about the law solely at the undergraduate level. In addition to this introductory course, students will choose from courses that focus on legal content, e.g., Law in the Western Tradition, as well as from courses that focus primarily on skill development, e.g., Logic.

The following is a complete list of the requirements of the Legal Studies concentration:

1. Students must take at least five courses (15 credits) that are approved for the concentration.
2. Students must take the three-credit, Legal Studies Fundamentals (INTD 115), as early as possible and before the senior year (exceptions can be made in some cases).

3. Students can count a maxim of two skill-based courses (six credits) toward the concentration requirements. These skill-based courses are marked with (SK).
4. Students can count no more than two courses (six credits) from any one discipline toward the concentration requirements.
5. In some cases, the director may permit students to substitute two three-credit courses, one of which must be skill based (SK), for the required three-credit Legal Studies Fundamentals (INTD 115). If this substitution is made, the student must complete a total of six courses (18 credits) with no more than three skill-based courses (nine credits).

## Legal Studies Courses

In addition to the required INTD 115 - Legal Studies Fundamentals course, students must take at least four (12 credits) of the following courses. Students can count no more than two courses (6 credits) that focus on skill development toward the concentration. These courses are marked with an (SK). Students can also count no more than two courses from any one discipline toward the concentration. Courses may be taken in any order, although it is highly recommended that students take Legal Studies Fundamentals as early as possible.

- CJ 310 - Criminal Justice Process
- CJ 312 - Criminal Law
- COMM 210 - (EPW) Logical and Rhetorical Analysis (SK)
- COMM 211 - Argumentation and Debate (SK)
- COMM 310 - Mass Communication Law
- COMM 314 - Legal Communication (SK)
- HADM 212 - Health Administration Law
- HIST 241 - Law in the Western Tradition
- HIST 312 - The Early National Period of American History, 1789-1824
- HIST 336 - History of American Law
- HIST 337 - English Constitutional and Legal History
- MATH 299 - (EPW) Introduction to Mathematical Proof (SK)
- MGT 251 - Legal Environment of Business
- PHIL 215 - (P) Logic (SK)
- PHIL 319 - (P) Philosophy of Law
- PHIL 323 - (P) Natural Law: True Guide or Grave Error?
- PS 216 - (D,S) Women's Rights and Status
- PS 230 - (S) Environmental Laws and Regulations
- PS 280 - Pre-Law Internship
- PS 310 - Judicial Politics
- PS 311 - Constitutional Law I
- PS 312 - Constitutional Law II
- S/CJ 210 - (S) Law and Society
- S/CJ 218 - (S) The American Court System
- S/CJ 316 - Principles of Evidence
- S/CJ 318 - Civil Liability

- WRTG 212 - Writing for the Law (SK)

# Peace and Justice Studies Concentration

Will Cohen, Ph.D., *Director*

The Synod of Bishops of the Roman Catholic Church (1971) reported that "action on behalf of justice and participation in the transformation of the world fully appear to us as a constitutive dimension of the preaching of the Gospel...." Since, the 32nd General Congregation of the Society of Jesus (1974-75) Jesuit institutions of higher education have aimed to reveal the link between the practice of faith and the promotion of justice. In this vein the University's Peace & Justice Program was instituted to bring academic studies, including classes, community service and interdisciplinary research, into the process of building a more just and thus more peaceful society.

The Peace and Justice Concentration will be an attractive complement to the academic programs of students planning careers in law, international relations, human services, ministry and teaching — to name only the most obvious. However, any students who have a personal interest in the problems of peace and justice, regardless of their career goals, can benefit from its multi-disciplinary concentration of courses. It is open to majors from all the undergraduate schools of the University. Six courses (18 credits) must be taken by students in order to have "Peace and Justice Concentration" added to their transcript. Courses may be taken as part of the cognate requirement (with permission of the chairperson of the major) or as part of the general-education requirements.

## A. One course in Theology from among the following:

- T/RS 230 - (P) Moral Theology
- T/RS 231 - (P) God and the Good Society
- T/RS 232 - (P) Catholic Social Thought
- T/RS 234 - (P,D) Peacemakers
- T/RS 235 - (P) The Theology of Birth and Death
- T/RS 236 - (P) God and Money
- T/RS 250 - (P,D) Latin American Liberation Theology and Beyond
- T/RS 295 - (P,D) Christianity in Africa
- T/RS 313 - (P,EPW) Faith and Justice in the Prophetic Tradition
- T/RS 331 - (P) God and the Earth
- T/RS 334 - (P,D) The Church and Contemporary Social Issues

## B. Four electives from among the following:

- CHS 333 - (D) Multiculturalism in Counseling and Human Services
- CHS 338 - Poverty, Homelessness and Social Justice
- ECO 465 - Development Economics
- ENLT 129 - (CL, D) Literature and Social Justice
- ENLT 226 - (CL,D) Novels by Women
- ENLT 348 - (CL,D) Colonial and Postcolonial Fiction
- GEOG 217 - (D,S) Cultural Geography
- HIST 125 - (CH,D) Colonial Latin America
- HIST 211 - The Third World: Empire to Independence

- HIST 215 - (CH,D) Church and Society in Latin America
- HIST 216 - (CH,D) Race in American History
- HIST 224 - (CH,D) Ethnic and Racial Minorities in Northeastern Pennsylvania
- HIST 327 - (CH,D,EPW) Race in Latin America
- INTD 209 - (D) The Holocaust
- INTD 211 - (D,E) HIV/AIDS: Biological, Social and Cultural Issues
- LIT 207 - (CL,D,EPW) Literature of Global Minorities
- MGT 473 - Organizational Social Responsibility
- NSCI 201 - (E) Science and the Human Environment
- PHIL 213 - (P) Environmental Ethics
- PHIL 218 - (P,D) Feminism: Theory and Practice
- PHIL 227 - (P) Political Philosophy
- PHIL 238 - (P) Wealth and the Human Good
- PHYS 106 - (E) Energy and the Environment
- PS 110 - (FYOC,FYDT) Scranton and the World
- PS 216 - (D,S) Women's Rights and Status
- PS 227 - (D,S) Women, Authority and Power
- PS 323 - (S,D) Central America
- PS 334 - Comparative Civil Wars
- PS 340 - September 11, 2001 and Beyond
- PSYC 220 - (S) Social Psychology
- PSYC 239 - Environmental and Conservation Psychology
- PSYC 364 - (D) Psychology of Diversity
- S/CJ 210 - (S) Law and Society
- SOC 213 - (S,D) Collective Behavior and Social Movements
- SOC 219 - Community Organization
- SOC 220 - (S,D) Social Stratification
- SOC 224 - (S,D) Race and Ethnic Relations
- SOC 230 - Sociology of Globalization
- SPAN 314 - (EPW,D) Latin-American Culture and Civilization
- SPAN 335 - (D) Service and the Hispanic Community
- A second Theology course from those listed above.
- *Others may be substituted with approval from the program director.

## C. Experiential Learning:

Practical experience in working for peace and justice. This can take the form of a civic engagement project, course-related service learning, an immersion experience, an internship, or other engagement approved by the Director of the Peace and Justice

Studies.

## D. Integrative Capstone Course (required in senior year)

- T/JP 310 - Toward a Just and Peaceful World

# Pre-Professional Programs

## Pre-Law Advisory Program

The University of Scranton Pre-Law Advisory Program is a pre-professional non-curricular program designed to help students navigate the law school application process. It offers guidance regarding course selection, LSAT timing, personal statement writing, obtaining letters of recommendation, application procedures, and law school selection during all four years of a student's undergraduate experience. The program also offers services and law school application guidance to University of Scranton alumni.

The University is justly proud of its tradition in providing students seeking careers in the law with a solid preparation for the demands of legal study and practice. Scranton graduates in all regions of the nation have achieved distinction in virtually every area of the law, including a member who served as a clerk to the late William Rehnquist, former Chief Justice of the U.S. Supreme Court.

The clearest measure of the strength of the University's Pre-Law Advisory Program is the remarkable success its graduates have had in winning admittance to law schools throughout the country. Recent graduates have been admitted to many prestigious law schools, including Georgetown, Penn, Boston College, Catholic University, Fordham, Notre Dame, Rutgers, Seton Hall, Syracuse, Temple, William and Mary, and Villanova.

## *Pre-Law Curriculum*

No specific undergraduate major is required for admission to law school; The American Bar Association's statement on Preparation for Legal Education does not recommend any particular group of majors or individual courses, noting that "the law is too multifaceted, and the human mind too adaptable, to permit such a linear approach to preparing for law school or the practice of law." The ABA statement, however, does describe certain skills and values that are essential to success in law school and competent practice. These are:

1. **Analytic and Problem Solving skills**, involving critical thinking and the ability to structure and evaluate arguments for and against propositions;
2. **Critical Reading Abilities**, derived from substantial experience in the close reading and critical analysis of complex texts;
3. **Writing Skills**, developed through rigorous practice in preparing and revising original pieces of substantial length;
4. **Oral Communication and Listening Abilities**, based on experience in giving and evaluating formal presentations;
5. **Research and Time Management Skills**, involving the ability to plan a research strategy, to undertake substantial library work, and to organize large amounts of information within a fixed period of time; and, not least of all,
6. **A Commitment to Serving Others and Promoting Justice**, based on significant experience in service projects as an undergraduate.

Students can acquire these skills by majoring or minoring in any discipline that involves intensive reading and extensive writing such as English, history, philosophy, or political science. Having some training in logical and argumentative analysis is also important. At the same time, students who have majored in other areas, including languages, management, any of the social sciences, as well as the natural sciences, have enjoyed success in the study and practice of law. Ultimately, the best preparation for law school is taking challenging courses from demanding professors.

In addition to these skills and values, the ABA has identified several more areas of knowledge that pre-law students should acquire as undergraduates, and the University's General Education Program provides a framework whereby these can be acquired through the following requirements.

- A broad understanding of American history (HIST 110 - HIST 111)
- A fundamental understanding of political thought and the American political system (PS 120 - PS 121)
- A basic understanding of ethical theory (PHIL 210)

- A grounding in economics, especially microeconomic theory (ECO 153)
- An understanding of basic pre-calculus mathematics (MATH 106 or equivalent)
- A basic understanding of human behavior and social interaction (PSYC 110 or SOC 110)
- An understanding of diverse cultures within and beyond the United States (the 6-credit cultural-diversity GE requirement)

## *Legal Studies Concentration*

To supplement a student's choice of major and to help pre-law students structure their undergraduate curriculum, the University also offers an interdisciplinary Legal Studies Concentration. The concentration provides pre-law students with a curriculum that can both advance participants' understanding of the law and develop the skills necessary for success in law school. The concentration also seeks to instill in students a sense of justice and a commitment to the common good that is consistent with the Jesuit and Catholic mission of the University. At the heart of the curriculum is an introductory course—Legal Studies Fundamentals (INTD 115)—designed with these aims of the concentration in mind. In addition to this introductory course, four more courses must be chosen from a list of offerings that align with the aims of the program and can be tailored to meet the needs of the individual student. For more information, see the corresponding entry for the Legal Studies Concentration in this catalog. Pre-law students who do not pursue the Legal Studies Concentration should nevertheless consult the list of courses included in the program.

## *Pre-Law Internships*

Interested students with a grade point average above 3.00 at the time of application may, with the approval of the appropriate dean, receive academic credit for internships served in the offices of either private law firms or various legal agencies such as the district attorney, public defender, or district magistrate. Prior approval of the planned internship is necessary. A minimum of 120 hours work is required for internship credit in PS 280. Application forms for these internships are available from the Registrar's Office. Numerous pre-law internships not for academic credit are available and can be found primarily, but not exclusively, through the Center for Career Development.

## *Pre-Law Advisory Council*

A pre-law advisory council headed by Dr. Matthew Meyer, Director of the Pre-Law Advisory Program, provides continuing advice on course selection, career planning, and the law school application process. He is assisted by Drs. Gretchen Van Dyke and Joel Kemp, co-moderators of the student-run Pre-Law Society, along with faculty members from the departments of Communication, Criminal Justice, English, History, Management, and Political Science.

## *The Pre-Law Society*

Established in 1966, The University of Scranton Pre-Law Society is the longest standing organization on campus. It is a student-run club co-moderated by Drs. Gretchen Van Dyke and Joel Kemp. The goal of the society is to work in conjunction with the pre-law advisor to provide students with the social and networking component of the pre-law experience. We offer numerous professional opportunities in which students can meet with alumni lawyers to ask questions, seek advice, and even discuss internship opportunities down the road.

## *Mock Trial*

The University of Scranton is a member of the American Mock Trial Association (AMTA) and offers students the opportunity to participate on the University's Mock Trial Team. The team is a group of dedicated students who train and compete in mock trial competitions throughout the academic year. In a mock trial competition, students serve as attorneys and witnesses and follow a typical court case process using fake case materials provided in advance. The team is comprised of students from across the university, from first-year students to seniors, who are coached by seasoned local attorneys who donate their time to developing students as mock trial competitors and people. More information about the team is available on the pre-law website.

### *Direct Entry Affiliation Agreement with Villanova University School of Law*

The University of Scranton has a direct entry affiliation agreement with Villanova University School of Law. There are two components to this agreement. First, graduating seniors of The University of Scranton who meet minimum GPA (3.6) and LSAT (154) requirements as well as other character and fitness criteria will receive automatic admission to Villanova University School of Law. Second, third-year students (juniors) at The University of Scranton who meet minimum GPA (3.6) and LSAT (158) requirements as well as other character and fitness criteria can choose to complete up to 30 credits (roughly equivalent to one year of course work) of the undergraduate degree through the J.D. program at Villanova University School of Law. Because these credits will count toward both the bachelor and the J.D. degrees, students in this program will typically only need six—rather than seven—years to complete both degrees. Students interested in this 3-3 arrangement should contact the Director of the Pre-Law Advisory Program, Dr. Matthew Meyer, for more information.

### *Early Admission Agreement with Duquesne University School of Law*

The University of Scranton also has an early admission agreement with Duquesne University School of Law. According to this agreement, third-year students (juniors) at The University of Scranton who meet minimum GPA (3.5) and LSAT (154) requirements as well as other character and fitness criteria can choose to complete up to 30 credits (roughly equivalent to one year of course work) of the undergraduate degree through the J.D. program at Duquesne University School of Law. Because these credits count toward both the bachelor and the J.D. degrees, students in this program will typically only need six—rather than seven—years to complete both degrees. Students interested in this 3-3 arrangement should contact the Director of the Pre-Law Advisory Program, Dr. Matthew Meyer, for more information.

### *Early Admission Agreement with Boston College*

The University of Scranton has an early admission agreement with Boston College Law School. According to this agreement, third-year students (juniors) at The University of Scranton who have a GPA and LSAT score that is equal to or greater than the medians of the previous entering law school class at Boston College (and meet other fitness and character requirements) will be eligible for direct admission to the Law School after completing three years of undergraduate coursework (63 credits of which must be completed at The University of Scranton). Students will complete the remaining 30 credits of the bachelor degree as a first-year law student at Boston College. Thus, students in the program will only need six–rather than seven–years to complete both degrees (three years for the bachelor degree and three years for the JD). Students interested in this 3-3 arrangement should contact the Director of the Pre-Law Advisory Program, Dr. Matthew Meyer, for more information.

# Pre-Medical Program

The success of the University's Pre-Medical Program has been outstanding. Since 1980, the University has placed an average of more than 46 students per year into American schools of medicine, dentistry, optometry, podiatry and veterinary medicine, often in the most prestigious schools in the country. Since 1999, the acceptance rate of University of Scranton applicants to medical, dental and other health professions schools has averaged 79%, with acceptance rates for individual years ranging from 65% to 100%.

The University of Scranton offers its pre-medical students unique opportunities in anticipation of changes in healthcare delivery for the 21st century. They include a special exposure to primary-care medicine (the practice of family physicians, general internists, and general pediatricians), predicted to be the area of greatest growth in medicine.

The University of Scranton is one of only six undergraduate institutions participating in the Physician Shortage Area Program (PSAP) at Sidney Kimmel Medical College of Thomas Jefferson University. This program is designed to recruit and educate medical students who intend to enter family medicine and practice in physician-shortage areas in Pennsylvania. Finally, University of Scranton students are encouraged to participate in programs at the Center for Primary Care at the Penn State College of Medicine, Hershey.

The Pre-Med Program is supported by a network of hundreds of medical alumni and by an active Medical Alumni Council. The Medical Alumni Council sponsors on-campus programs to which undergraduate students are invited.

## Pre-Medical Undergraduate Curricula

Many undergraduate students who intend to apply to health-professions schools choose one of Scranton's seven life-sciences majors. However, students may choose any major, provided that they meet the prerequisite requirements for entrance to medical, dental, or other health-professions schools. For students at The University of Scranton, the minimum requirements are listed below. All first-year biology and first- and second-year chemistry courses must be taken with their corresponding labs.

BIOL 141 - (E) (FYOC, FYDT Lab only) General Biology – BIOL 142 - (E) (FYOC, FYDT Lab only) General Biology

CHEM 112-113 - (E) General and Analytical Chemistry

CHEM 232 - (E) Organic Chemistry – CHEM 233 - (E) Organic Chemistry

PHYS 120/PHYS 120L - (E) General Physics I – PHYS 121/PHYS 121L - (E) General Physics II

One semester of Biochemistry, either CHEM 350 - General Biochemistry I or CHEM 450 - Biochemistry I (lab not required)

Virtually all medical schools require a year of English literature, and many require a semester or a year of mathematics, including calculus. Since 2015 MCAT, pre-medical students have taken courses in psychology and/or sociology; students taking MCAT 2015 will also need to show competence in statistics.

Many medical schools recommend that students demonstrate a wide range of interests in their choice both of courses and of extra-curricular activities. Volunteer work is strongly recommended by the admissions committees of most health-professions schools, as is course work in ethics, particularly in PHIL 212 - (P) Medical Ethics, PHIL 316 - (P) American Perspectives on Health-Care Ethics, and/or T/RS 227 - (P) Biomedical Ethics. Some medical and dental schools also have specific prerequisites for English, mathematics, or other courses, as listed in *Medical School Admission Requirements, or Admission Requirements of U.S. and Canadian Dental Schools.*

The Association of American Medical Colleges recommends that undergraduate students planning to apply to medical school acquire a strong background in the natural sciences, so students should consider courses in biology, chemistry, physics and mathematics beyond the minimum requirements. Students should develop strong oral and written communication skills, and they should complete rigorous courses in the humanities and social sciences. Honors courses and programs, independent study, and/or undergraduate research are also encouraged.

The University offers all applicants to health-professions schools the option of a formal evaluation by the Health Professions Evaluation Committee (HPEC), consisting of 23 faculty and administrators representing a wide range of academic disciplines. All applicants who seek to apply to doctoral-level health professions schools are evaluated on academic record, volunteer and community service activities, extracurricular activities, and demonstrated motivation toward their chosen careers. Through the HPEC interview, students have an opportunity to develop their interviewing skills and receive feedback on their application materials and interviewing performance. The HPEC evaluation package sent to health professions schools provides a comprehensive narrative that describes in depth an applicant's qualifications for advanced study and a career in the health professions.

The University also makes available to students a wide variety of resources in the Health Professions Lending Library.

## Additional Information

Information and copies of publications are also available from Dr. Patrick Orr, the Director of Pre-Medical and Pre-Health Professions Programs and from Dr. Gabriela Jakubowska, the Associate Director of Pre-Health Advising. In addition, the student-supported Health Professions Organization Web site at www.scranton.edu/premed provides extensive helpful information for interested students.

# College of Arts and Sciences

With more than 35 areas of study, The College of Arts and Sciences (CAS) is the largest academic division of the University. Its liberal arts programs serve students well in many different careers. CAS programs also lay the foundation for professional study in law, medicine and dentistry, as well as for graduate study in various fields.

# Art and Music

Josephine M. Dunn, Ph.D., *Director, Art and Music Program*

## Overview

The Art and Music program offers three minors: Art History, Studio Art, and Music History. Each discipline develops creative expression, prompts aesthetic appreciation and judgment, develops critical thinking, and deepens understanding of the impulse to create with sound and image.

Designated courses in Art History, Studio Art, and Music History satisfy General Education requirements in the following areas: Humanities (CA), Cultural Diversity (D), and Writing-Intensive (EPW).

## Course Information

Courses for **Art and Music** are listed under the prefixes ARTH, ART and MUS. For more information on these and all courses offered, visit our Course Descriptions page.

## Art History Minor

A minor in Art History requires 18 credits, including ARTH 101 and a choice of ARTH 102 or ARTH 103. Four additional courses in Art History are required; PHIL 320 may be used as one of these four courses. Internships at the Lackawanna Historical Society, Everhart Museum, and Anthracite Heritage Museum are available to Art History minors upon completing 12 credits in Art History.

Qualified students may major in Art History through the Individualized Major.

Students with minors in Art History have recently enrolled in graduate degree programs in art history (Emory University, Temple University, the University of Durham, England), decorative arts (Rhode Island School of Design), library science and museum education (Bard College, NYC). Others have accepted employment with the Metropolitan Museum of Art, and Sotheby's in New York City, and at the Barnes Foundation and the Franklin Institute, both in Philadelphia.

**All courses in Art History include trip to a Philadelphia or New York City museum.**

For more information about the Art History and Studio Art Programs, visit the History Department's website.

## Music History Minor

A minor in Music History requires 18 credits, including MUS 111, MUS 112, MUS 235, MUS 236, and two additional music courses numbered 110 or above. Students with music literature minors have pursued careers in recording, musical composition and performance.

## Studio Art Minor

A minor in Studio Art requires 18 credits, including ARTH 101 or ARTH 102, ARTH 225, and 4 ART electives.

Minors in Studio Art have continued their studies at the Maryland Institute of Art, the Art Students' League (New York City), and the Moore College of Art (Philadelphia). For more information about the Art History and Studio Art Programs, see the History Department's website.

**All studio art courses include a trip to a Philadelphia or New York City art museum.**

# Associate in Arts

The Associate in Arts requires each candidate for the degree to complete 60 semester hours of credit. Of these, 54 credits must be earned in the liberal arts, according to a prescribed plan covering the humanities, social/behavioral sciences, philosophy, theology/religious studies, and natural sciences/mathematics. The remaining 6 semester hours are allotted to free electives. Applicants who have attended other accredited colleges may transfer up to 30 credits for applicable courses in which a grade of C or better was earned.

## Associate in Arts Curriculum

| | *Department and Number - Descriptive Title of Course* | *Credits* |
|---|---|---|
| **General Education** | | |
| GE SPCH–WRTG | COMM 100 - (FYOC) Public Speaking–WRTG 107 - (FYW) Composition | 6 |
| GE C/IL–QUAN | C/IL 102/102L - (FYDT) Computing and Information Literacy–Math Elective | 6 |
| GE PHIL–T/RS | PHIL 120 - Introduction to Philosophy–T/RS 121 - (P) Theology I: Introduction to the Bible | 6 |
| GE PHIL–T/RS | PHIL 210 - Ethics–T/RS 122 - (P) Theology II: Introduction to Christian Theology | 6 |
| GE S/BH | S/BH ELECT–Social/Behavioral Electives | 6 |
| GE NSCI | NSCI ELECT–Natural Science Electives | 6 |
| **Major/Cognates** | | |
| **(includes humanities, social/behavioral sciences, philosophy, theology, natural sciences, mathematics)** | | |
| HUMN ELECT | ELECT–Humanities/Major Electives | 24 |
| | **Total: 60 Credits** | |

**** Liberal Arts includes humanities, social/behavioral sciences, philosophy, theology and natural sciences/mathematics.***

# Biology

## Faculty

Janice Voltzow, Ph.D., *Chair*

Timothy J. Cadigan, S.J., Ph.D.

Bryan R. Crable, Ph.D.

Ashley M. Driver, Ph.D.

Kathleen G. Dwyer, Ph.D.

Vincent R. Farallo, Ph.D.

Tara N. Fay, M.S.

Spencer Galen, Ph.D.

Christopher A.F. Howey, Ph.D.

David Ingber, Ph.D.

Cara A. Krieg, Ph.D.

Gary G. Kwiecinski, Ph.D.

Amelia Randich, Ph.D.

Anne Royer, Ph.D.

Marc A. Seid, Ph.D.

Robert J. Smith, Ph.D.

Matthew J. Socha, Ph.D.

Jong-Hyun Son, Ph.D.

Maria E. Squire, Ph.D.

Terrence E. Sweeney, Ph.D.

Robert F. Waldeck, Ph.D.

## Overview

The Biology department delivers two programs, the Bachelor of Science in Biology and the Bachelor of Science in Physiology.

Of the biological science programs offered by Scranton, the Bachelor of Science in Biology provides the broadest exposure to the study of the living world by encompassing the molecular and cellular, systems and multi-organismal domains of the discipline. In keeping with the evolution of the field of biology, we have adopted an integrated, interdisciplinary approach to the Biology

curriculum. The mission of the program is to present the fundamental scientific facts and concepts needed for a broad understanding of the living world and to help students develop the skills they need to apply this knowledge to contemporary global issues.

Physiology is a branch of biology that focuses on how organisms function and respond to changes in their internal and external environments. The Bachelor of Science in Physiology program provides robust foundations in anatomy and physiology and in cellular and integrative physiology, and educates majors in cutting-edge investigational techniques that characterize modern day physiological research. The major is targeted to serve a wide array of continuing and emerging career paths in the biological and biomedical arena.

For both our Biology and Physiology programs, we take great pride in getting our majors excited about their disciplines by fostering their collaboration with students and faculty in other science majors, providing them with a strong foundation in many specialties, and helping them pursue their own individual interests.

## Affiliated Programs

Biology also collaborates with the Chemistry department to deliver the Bachelor of Science programs in Biochemistry, Cell and Molecular Biology (BCMB) and in Environmental Science, and we collaborate with the Psychology department to deliver the Bachelor of Science program in Neuroscience. For information on these programs affiliated with the Biology department please visit the catalog pages for Biochemistry, Cell and Molecular Biology, BS; Environmental Science, BS; Neuroscience, BS; as well as those for Biochemistry, BS; Biophysics, BS; and Biomathematics, BS.

For information on the CAS/MBA Five-Year Program, visit our CAS/MBA Five-Year Program page.

## Course Information

Courses offered by **Biology** are listed under the prefixes BIOL, BCMB, ESCI, NEUR, and PSIO. For more information on these and on all courses offered, visit our Course Descriptions page.

## Biology, BS

The curriculum for the biology major has been designed so that students meet a set of specific goals before graduation. It is the responsibility of the student to obtain the necessary documentation and work with their advisor to ensure that the proper classes and experiences meet the criteria for all of the goals of the Biology major. Once satisfied, the advisor will sign the Portfolio Requirement Checklist and forward it to the Biology Chair with the appropriate documentation to note completion of these goals.

## Goals

1. **Demonstrate mastery of content across the broad field of modern biology**

   Biology majors are required to take the two-semester general biology course with laboratories (BIOL 141-BIOL 142 with labs). In addition to this 9-credit sequence, biology majors will select a minimum of 27 credits of biology electives, with at least four credits in courses at the 200-level or higher that deal primarily with phenomena in each of the three subject areas listed below and a minimum of three laboratory courses.

| | |
|---|---|
| BIOL 141 with lab | 4.5 credits |
| BIOL 142 with lab | 4.5 credits |
| Molecular & Cellular Electives | 4 credits |
| Systems Electives | 4 credits |
| Multi-Organismal Electives | 4 credits |
| Major Electives | 15 credits |

| | |
|---|---|
| **Total** | **36 credits** |

2. **Laboratory Expertise**

   Biology majors must have three laboratory course experiences at the 200 level or above from at least two of the three content areas (Molecular/Cellular, Systems and Multi-organismal). At least one course should be a laboratory course that incorporates manipulation of tissue or whole organisms at the macroscopic level. Students should consult the department's website and their advisors for the lists of courses that fulfill these requirements.

   **NOTE:** One of the laboratories can be substituted by only one of the following laboratory experiences; with supporting documentation supplied:

   a. Successfully defend an Honors Thesis (BIOL 488H/489H) involving research that generated original data.

   b. Successfully complete a fellowship or internship for summer research in a life science-related project.

   c. Successfully complete Independent Research (BIOL 393 or BIOL 394).

3. **Critically evaluate biological data (two courses or experiences)**

   Students must gain expertise in acquiring data either first-hand or from primary literature sources, and in evaluating and interpreting the data. Activities include: literature searches, data analysis and synthesis, and graphical representation of data. Students should complete **two** of the following courses or experiences:

   a. A course approved by the department that fulfills this requirement.

   b. Successfully defend an Honors Thesis (BIOL 488H/489H) that generates original data

   c. Successfully complete a project awarded a Fellowship for Summer Research in a life science-related project that generates original data

   d. Successfully complete Independent Research (BIOL 393 or BIOL 394) that generates original data

   e. Serve as an author of an article that includes original data and is submitted for publication to a peer-reviewed journal

   f. Serve as an author of an article that includes original data and is submitted for publication to a peer-reviewed journal.

4. **Demonstrate mastery of the scientific method (one course or experience)**

   This experience would ordinarily be demonstrated by activities involving independent investigation or experimental design. The design must employ the scientific method, which includes designing a hypothesis and protocol, gathering data, interpreting results, developing conclusions, and formulating directions for further investigation.

   Students should complete **one** of the following courses or experiences:

   a. A course approved by the department that fulfills this requirement.

   b. Successfully defend an Honors Thesis (BIOL 488H/489H) that incorporates the scientific method

   c. Successfully complete a project awarded a Fellowship for Summer Research that incorporates the scientific method.

   d. Successfully complete Independent Research (BIOL 393 or BIOL 394) that incorporates the scientific method

   e. Serve as an author of an article that incorporates the scientific method and is submitted for publication to a peer-reviewed journal.

   f. Present a project at the Biology Department Fall or Spring Student Conference that incorporates the scientific method as described above.

5. **Effectively communicate biological information in writing (two courses or experiences)**

   These experiences ordinarily include a written product in which a majority of the citations come from the primary literature or that incorporates original data. Students should complete **two** of the following courses or experiences:

   1. A course approved by the department that fulfills this requirement

   2. Successfully defend an Honors Thesis (BIOL 488H/489H) that generates original data

   3. Serve as an author of an article that is submitted for publication to a peer-reviewed journal

4. Serve as first author of a poster presented at a scientific conference (requires evidence that the abstract was published in the conference program or website).
5. Working with a faculty mentor, produce a written project, either in a class or independently.

6. **Effectively communicate biological information orally (two courses or experiences)**

   These experiences ordinarily demonstrate that the student has read the primary literature and/or analyzed original data. The oral presentation should be at least 10 minutes long.

   Students should complete **two** of the following courses or experiences:

   a. A course approved by the department that fulfills this requirement.
   b. Successfully defend an Honors Thesis (BIOL 488H/489H) that generates original data
   c. Make an oral presentation at an extramural scientific conference (requires evidence that the abstract was published in the conference program or website).
   d. Made a poster presentation as PRIMARY or PRESENTING AUTHOR at an extramural scientific conference (requires evidence that the abstract was published in the conference program or website). Note: second authorship of a poster does NOT qualify.
   e. Make an oral or poster presentation at the Annual Celebration of Student Scholars or an equivalent on-campus forum.
   f. With the approval of the instructor, make an oral presentation in a class that might not ordinarily require an oral presentation.
   g. Make an oral presentation at the Biology Department Fall or Spring Student Conference.

## Molecular & Cellular Elective (MC)

- BIOL 250 - Microbiology (MC)
- BIOL 260 - Genetics (MC)
- BIOL 344 - Principles of Immunology (MC)
- BIOL 350 - (EPW: lab only) Cellular Biology (MC)
- BIOL 358 - Cellular and Molecular Neurobiology (MC)
- BIOL 361 - Molecular Biology I (MC)
- BIOL 362 - (EPW: lab only) Molecular Biology II (MC)
- BIOL 364 - Virology (MC)
- BIOL 464 - Molecular Biology of Cancer (MC)

## Systems Elective (S)

- BIOL 241 - Comparative Vertebrate Anatomy (S)
- BIOL 245 - (EPW: lab only) General Physiology (S)
- BIOL 255 - Animal Nutrition and Metabolism (S)
- BIOL 272 - Invertebrate Biology (S)
- BIOL 342 - Comparative Biomechanics (S)
- BIOL 345 - Comparative Animal Physiology (S)
- BIOL 346 - Endocrinology and Reproduction (S)
- BIOL 347 - Exercise Physiology (S)

- BIOL 348 - Functional Neuroanatomy (S)
- BIOL 349 - Plant Physiology (S)
- BIOL 351 - Developmental Biology (S)
- BIOL 352 - Histology (S)
- BIOL 354 - Special Histology (S)
- BIOL 357 - Developmental Neuroscience (S)
- BIOL 395 - Extreme Physiology (S)
- BIOL 444 - Sensory Biology (S)
- BIOL 446 - Cardiovascular Physiology (S)
- BIOL 453 - Skeletal Biology (S)
- BIOL 454 - Pathophysiology (S)

## Multi-Organismal Elective (MO)

- BIOL 273 - Marine Ecology (MO)
- BIOL 274 - Conservation Biology (MO)
- BIOL 295 - (E,D) Philippines Organisms and Ecosystems (MO)
- BIOL 360 - Molecular Evolution and Bioinformatics (MO)
- BIOL 368 - Neuroethology (MO)
- BIOL 370 - (W: lab only) Animal Behavior (MO)
- BIOL 371 - (EPW: Lab only) Ecology (MO)
- BIOL 374 - Vertebrate Biology (MO)
- BIOL 375 - Evolution (MO)
- BIOL 472 - Systems Ecology (MO)
- BIOL 473 - Estuarine Ecology (MO)

## Additional Information

See the Pre-Medical Program section for the pre-medical advisor's elective recommendations for pre-professional students.

See the Pre-Law Advisory Program section for the pre-law advisor's recommendations for electives.

For a faculty listing, overview and listing of affiliated programs of the Department of Biology, visit Biology.

## Biology Curriculum

| | *Department and Number - Descriptive Title of Course* | *Fall Cr.* | *Spr. Cr.* |
|---|---|---|---|
| **First Year** | | | |
| MAJOR (GE NSCI) | BIOL 141 - (E) (FYOC, FYDT Lab only) General Biology with Lab[1] – BIOL 142 - (E) (FYOC, FYDT Lab only) General Biology with Lab[1] | 4.5 | 4.5 |

| | | | |
|---|---|---|---|
| COGNATE | CHEM 112-113 - (E) General and Analytical Chemistry/CHEM 112L-113L | 4.5 | 4.5 |
| GE WRTG | WRTG 107 - (FYW) Composition | 3 | |
| GE ELECT | FREE ELECT – Free Elective | | 3 |
| GE PHIL | PHIL 120 - Introduction to Philosophy | 3 | |
| GE HUMN | HUMN ELECT - Humanities Elective | | 3 |
| GE FSEM | First Year Seminar[2] | | |
| | | **15** | **15** |
| **Second Year** | | | |
| MAJOR | BIOL ELECT – Biology Electives | 4 | 4 |
| COGNATE | CHEM 232 - (E) Organic Chemistry/CHEM 232L – CHEM 233 - (E) Organic Chemistry/CHEM 233L | 4.5 | 4.5 |
| GE QUAN | MATH 114 - (Q) Calculus I | 4 | |
| GE S/BH | S/BH ELECT - Social/Behavioral Elective | | 3 |
| GE PHIL–T/RS | PHIL 210 - Ethics – T/RS 121 - Theology I: Introduction to the Bible | 3 | 3 |
| | | **15.5** | **14.5** |
| **Third Year** | | | |
| MAJOR | BIOL ELECT – Biology Electives | 3 | 4 |
| COGNATE | PHYS 120/PHYS 120L - (E) General Physics I – PHYS 121/PHYS 121L - (E) General Physics II | 4 | 4 |
| GE S/BH | S/BH ELECT – Social/Behavioral Elective | 3 | |
| GE HUMN | HUMN ELECT – Humanities Electives | 3 | 3 |
| GE T/RS | T/RS 122 - Theology II: Introduction to Christian Theology | 3 | |
| GE ELECT | FREE ELECT - Free Electives | | 3 |
| | | **16** | **14** |
| **Fourth Year** | | | |
| MAJOR | BIOL ELECT – Biology Electives | 6 | 6 |
| MAJOR | BIOL 479 - Portfolio Completion | 0 | |
| GE PHIL or T/RS | PHIL ELEC - Philosophy or T/RS ELECT – T/RS Elective | | 3 |
| GE HUMN | HUMN ELECT – Humanities Elective | 3 | |

| | | | |
|---|---|---|---|
| GE ELECT | FREE ELECT – Free Electives | 6 | 6 |
| | | **15** | **15** |
| | | | **Total: 120 Credits** |

[1]*Successful completion of BIOL 141 Lab and BIOL 142 Lab satisfies the EP requirement.*

[2]*The selection of a First Year Seminar is likely to fulfill requirements both for the First Year Seminar and a General Education Requirement. Thus, the First Year Seminar will not add to the total credits for the semester. Talk with your advisor if you have any questions.*

## Biology Minor

The student must complete BIOL 141-BIOL 142, including the laboratory, and 12 additional credits of courses suitable for the Biology major. Biology electives must be selected from at least two of the three established course groups, and must include at least two advanced courses with laboratory components. It is strongly suggested that a potential Biology minor seek the advice of the department's chairperson concerning the selection of electives suitable to his/her personal goals.

# Physiology, BS

The B.S. in Physiology is an lean, 120-credit major that provides a strong foundation in physiology while offering the flexibility for the student to tailor his/her degree to suit a variety of specializations. Integrated into the major are both the broad elements of the biological sciences and the foundations of anatomy and physiology. The curriculum includes an advanced Cellular and Integrative Physiology lecture and laboratory course and a new seminar-style course highlighting cutting edge investigative techniques in physiology. Finally, with a broad selection of upper-level courses spanning the breadth of physiology, the curriculum prepares the student for a vast array of continuing and emerging career paths in biomedical arena and the physiological sciences.

## Physiology Curriculum

| | ***Department and Number - Descriptive Title of Course*** | ***Fall Cr.*** | ***Spr. Cr.*** |
|---|---|---|---|
| **First Year** | | | |
| MAJOR (GE NSCI) | BIOL 141 - (E) (FYOC, FYDT Lab only) General Biology with Lab[1] — BIOL 142 - (E) (FYOC, FYDT Lab only) General Biology with Lab[1] | 4.5 | 4.5 |
| COGNATE | CHEM 112-113 - (E) General and Analytical Chemistry — CHEM 112L-113L - General and Analytical Chemistry Laboratory | 4.5 | 4.5 |
| GE WRTG | WRTG 107 - (FYW) Composition | 3 | |
| GE ELECT | FREE ELECT - Free Elective | | 3 |
| GE PHIL | PHIL 120 - Introduction to Philosophy | 3 | |
| GE HUMN | HUMAN ELECT - Humanities Elective | | 3 |
| GE FSEM | First Year Seminar[2] | | |
| | | **15** | **15** |
| **Second Year** | | | |

| | | | |
|---|---|---|---|
| MAJOR | PSIO 220 - Advanced Human Anatomy and Physiology I/PSIO 220L - Advanced Human Anatomy and Physiology I Laboratory — PSIO 221 - Advanced Human Anatomy and Physiology II/PSIO 221L - Advanced Human Anatomy and Physiology II Laboratory | 5 | 5 |
| COGNATE | CHEM 232 - (E) Organic Chemistry/CHEM 232L - Organic Chemistry Laboratory — CHEM 233 - (E) Organic Chemistry/CHEM 233L - Organic Chemistry Laboratory | 4.5 | 4.5 |
| GE QUAN | MATH 114 - (Q) Calculus I | 4 | |
| GE S/BH | S/BH ELECT - Social/Behavioral Elective | | 3 |
| GE PHIL - T/RS | PHIL 210 - Ethics — T/RS 121 - Theology I: Introduction to the Bible | 3 | 3 |
| | | **16.5** | **16.5** |
| **Third Year** | | | |
| MAJOR | PSIO 320 - Cellular and Integrative Physiology/PSIO 320L - (EPW) Cellular and Integrative Physiology Laboratory — PSIO/BIOL ELECT - Physiology Elective | 6 | 3 |
| MAJOR | PSIO 390 - Experimental Approaches in Physiology Seminar | | 2 |
| COGNATE | PHYS 120/PHYS 120L - (E) General Physics I — PHYS 121/PHYS 121L - (E) General Physics II | 4 | 4 |
| GE S/BH | S/BH ELECT - Social Behavioral Elective | 3 | |
| GE HUMN | HUMN ELECT - Humanities Elective | | 3 |
| GE T/RS | T/RS 122 - Theology II: Introduction to Christian Theology | 3 | |
| GE ELECT | FREE ELECT - Free Elective | | 3 |
| | | **16** | **15** |
| **Fourth Year** | | | |
| MAJOR | PSIO/BIOL Electives[3] | 6 | 3 |
| GE PHIL OR T/RS | PHIL ELECT - Philosophy Elective or T/RS ELECT - Theology Elective | | 3 |
| GE HUMN | HUMN ELECT - Humanities Electives | 3 | 3 |
| GE ELECT | FREE ELECT - Free Electives | 6 | 3 |
| | | **15** | **12** |
| | **Total: 120 Credits** | | |

[1] Successful completion of BIOL 141 L/ BIOL 142 L satisfies the EP Foundational requirement.

[2] The selection of a First Year Seminar is likely also to fulfill a General Education course requirement. Thus, the First Year Seminar should not add any extra credits to the major.

[3] PSIO electives are divided into three domains listed below: Molecular & Cellular; Systems; and Comparative. In fulfilling their twelve Physiology elective credits, Physiology majors must include at least three credits from each domain. These elective credits also must include at least one of the courses marked with the + below that indicates that in-class oral presentations are included as part of the curriculum. With the approval of the Program Director, other research experiences may substitute for the oral presentation requirements.

## Physiology Elective Courses

### Molecular & Cellular Physiology

BIOL 255 - Animal Nutrition and Metabolism

BIOL 260 Genetics

BIOL 350 - Cellular Biology

BIOL 358 - Cellular and Molecular Neurobiology+

BIOL 444 - Sensory Biology+

### Systems Physiology

BIOL 346 - Endocrinology and Reproduction+

BIOL 395 - Extreme Physiology+

BIOL 446 - Cardiovascular Physiology+

BIOL 453 - Skeletal Biology+

BIOL 454 - Pathophysiology

### Comparative Physiology

BIOL 241 - Comparative Vertebrate Anatomy

BIOL 342 - Comparative Biomechanics+

BIOL 345 - Comparative Animal Physiology

BIOL 349 - Plant Physiology

BIOL 368 - Neuroethology+

### Other Physiology Elective Courses

BIOL 379 Biostatistics

PSIO 384 - Special Topics in Physiology

PSIO 393 - Undergraduate Research in Physiology

# Magis Honors Program in STEM

*Janice Voltzow, Director*

The Magis Honors Program in STEM is designed to provide undergraduate students with a more intense, interdisciplinary experience of research in science, technology, engineering, and mathematics (STEM). Through group meetings and individual research projects, students will gain the intellectual and technical skills to carry out original research and to communicate this research to others. An additional focus of the program is the responsibility of science to society to provide students with the foundations to become socially responsible scientists. While strengthening their skills in understanding and communicating science and mathematics, students mentor each other as they design and carry out their research. This work culminates in the production of a thesis at the end of the senior year. Co-curricular activities include a multi-day STEM field experience at a local research site in conjunction with a service project at the site the week before the start of classes for all incoming freshmen in the program. Service responsibilities will include tutoring students in local school districts in their STEM coursework and working with United Neighborhood Center youth groups.

## *Requirements*

Freshmen will participate in a common section of a first year seminar that focuses on science and society. A series of 1.5 credit seminars each semester bring together all students in the program once a week to learn how STEM researchers develop research questions, develop techniques to address those questions, evaluate their results, and share those results with others. Students learn from each other and provide mutual support as they develop independent research projects culminating in a thesis in spring of the senior year. A committee of three faculty will help guide the student through the process of developing and writing a thesis proposal, carrying out their research, and writing and developing their thesis. The program includes significant and innovative integration of science and humanities, including ENLT 143X: Writing Science in Literature, a special core humanities course, for example HIST 350 - (CH) American Environmental History, a special section of PHIL 210 - Ethics, and a core Theology course T/RS 342 - (P) Science and the Common Good. A minimum GPA of 3.5 (cum laude) is required for graduation in the program.

## *Admissions to the Magis Honors Program in STEM*

This program is available to incoming freshmen. Students who appear qualified will be invited by the Director to apply to the program. Students not selected initially who show exceptional ability in STEM, as demonstrated by high performance in classes and recommendations by faculty, may apply in their freshman year for admission as sophomores.

## Magis Honors Program in STEM Curriculum

| | |
|---|---|
| **First Year** | |
| **Fall** | 1st Yr. Seminar: ENLT 143X - Writing Science in Literature |
| | MAGI 191 - Foundations in STEM I |
| | |
| **Spring** | MAGI 192 - Foundations in STEM II |
| | |
| **Second Year** | |
| **Fall** | MAGI 291 - Methods of Inquiry I |
| | |
| **Spring** | MAGI 292 - Methods of Inquiry II |
| | PHIL 210 - Ethics |
| | |
| **Third Year** | |
| **Fall** | MAGI 391 - Discovery I |
| | |
| **Spring** | MAGI 392 - Discovery II |
| | HIST 350 - (CH) American Environmental History |
| | |
| **Fourth Year** | |
| **Fall** | MAGI 491 - Synthesis |
| | DEPT 487S - Magis Honors Project I |
| | |
| **Spring** | MAGI 492 - Exposition |
| | DEPT 489S - Magis Honors Project II |
| | T/RS 342 - (P) Science and the Common Good |

# Biochemistry, Cell and Molecular Biology

## Faculty

Kathleen G. Dwyer, Ph.D., *Co-Director, Biology Department*

Joan Wasilewski, Ph.D., *Co-Director, Chemistry Department*

Timothy D. Foley, Ph.D.

## Overview

The Biochemistry, Cell and Molecular Biology major is an interdisciplinary program of study between the Biology and Chemistry departments. The program provides students with an understanding of the fundamentals of biology and chemistry and the key principles of biochemistry, cell and molecular biology, as suggested by the American Society of Biochemistry and Molecular Biology. There is a strong emphasis on genomics, proteomics and bioinformatics.

The program is designed to provide students with expertise in both the fundamentals and frontline applications of these rapidly expanding fields, especially in the areas of genomics, proteomics and bioinformatics. Students who graduate from the program are expected to possess skills suitable for (a) biotechnical work in the pharmaceutical, health and agricultural industries and for (b) further academic pursuits in graduate or professional schools.

## Course Information

Courses for Biochemistry, Cell and Molecular Biology are listed under the prefixes BCMB. For information on these courses, visit our Biochemistry, Cell and Molecular Biology Courses page. For more information on all courses offered, visit our Course Descriptions page.

# Biochemistry, Cell and Molecular Biology, BS

## Major Electives

### *Choose one of the following:*

BIOL 250 - Microbiology

BIOL 344 - Principles of Immunology

BIOL 350 - (W,EPW: lab only) Cellular Biology

### *Choose two of the following:*

BCMB 464 - Molecular Biology of Cancer

BCMB 493 - Undergraduate Research *(may be an internship if approved by BCMB Advisory Board*

BIOL 245 - (W,EPW: lab only) General Physiology

BIOL 250 - Microbiology

BIOL 344 - Principles of Immunology

BIOL 350 - (W,EPW: lab only) Cellular Biology

BIOL 351 - Developmental Biology

BIOL 358 - Cellular and Molecular Neurobiology

BIOL 364 - Virology

CHEM 455 - Chemical Toxicology

CHEM 360 - Biophysical Chemistry I

CHEM 370 - Instrumental Analysis

## Biochemistry, Cell and Molecular Biology Curriculum

| | *Department and Number - Descriptive Title of Course* | *Fall Cr.* | *Spr. Cr.* |
|---|---|---|---|
| **First Year** | | | |
| MAJOR (GE NSCI) | CHEM 112-113 - (E) General and Analytical Chemistry/CHEM 112L-113L | 4.5 | 4.5 |
| MAJOR | BIOL 141 - (E) (FYOC, FYDT Lab only) General Biology with Lab[1] – BIOL 142 - (E) (FYOC, FYDT Lab only) General Biology with Lab[1] | 4.5 | 4.5 |
| COGNATE | MATH 114 - (Q) Calculus I | | 4 |
| GE WRTG | WRTG 107 - (FYW) Composition | 3 | |
| GE FSEM | First Year Seminar[6] | | |
| MAJOR | BCMB 290 - Seminar[2] | | 1 |
| GE FREE | FREE ELECT | 3 | |
| | | **15** | **14** |
| **Second Year** | | | |
| MAJOR | CHEM 232 - (E) Organic Chemistry/CHEM 232L – CHEM 233 - (E) Organic Chemistry/CHEM 233L | 4.5 | 4.5 |
| MAJOR | BIOL 361 - Molecular Biology I | | 5 |
| MAJOR | BCMB 290 - Seminar[2] | | 1 |
| MAJOR | BIOL ELECT – Biology Elective[3] | 3-5 | |
| GE T/RS | T/RS 121 - Theology I: Introduction to the Bible | | 3 |
| GE PHIL | PHIL 120 - Introduction to Philosophy | | 3 |
| GE HUMN | HUMN ELECT - Humanities Elective | 3 | |
| GE S/BH | S/BH ELECT - Social/Behavioral Elective | 3 | |
| GE FREE | FREE ELECT - Free Elective | 3 | |
| | | **16.5-18.5** | **16.5** |
| **Third Year** | | | |
| MAJOR | CHEM 450 - Biochemistry I – CHEM 451 - Biochemistry II or CHEM 350 - General Biochemistry I - CHEM 351 - General Biochemistry II | 3 | 3 |
| MAJOR | BIOL/CHEM ELECT- Biology/Chemistry Elective[4] | 3-4.5 | |
| COGNATE | PHYS 120/PHYS 120L - (E) General Physics I – PHYS 121/PHYS 121L - (E) General Physics II | 4 | 4 |

| | | | |
|---|---|---|---|
| GE T/RS – PHIL | T/RS 122 - Theology II: Introduction to Christian Theology – PHIL 210 - Ethics | 3 | 3 |
| GE S/BH | S/BH ELECT – Social Behavioral Elective | | 3 |
| GE HUMN | HUMN ELECT – Humanities Elective | | 3 |
| COGNATE ELECT | COGNATE ELECT - Cognate Elective[5] | 3 | |
| | | **16 - 17.5** | **16** |
| **Fourth Year** | | | |
| MAJOR | BCMB 490 - Biochemistry, Cell and Molecular Biology Capstone | | 3 |
| MAJOR | BCMB 440 - Proteomics | | 3 |
| MAJOR | BIOL 362 - (W: lab only) Molecular Biology II | 5 | |
| MAJOR | BIOL/CHEM ELECT – Biology/Chemistry Elective[3] | | 3-5 |
| GE HUMN | HUMN ELECT – Humanities Elective | 3 | 3 |
| GE PHIL or T/RS | PHIL ELEC - Philosophy or T/RS ELECT – T/RS Elective | 3 | |
| GE ELECT | FREE ELECT – Free Elective | 6 | |
| | | **17** | **12-14** |
| | **Total: 123-128.5 Credits** | | |

[1]*Successful completion of BIOL 141 and 142 satisfies the EP requirement.*

[2] *BCMB 290 is required twice; suggest taken Freshman and Sophomore years. (Junior year for transfer students is still an option.)*

[3]*BIOL 250, BIOL 344 or BIOL 350.*

[4]*In the third and fourth years, students must complete two of the following courses: BCMB 493; BIOL 245, BIOL 250, BIOL 344, BIOL 350, BIOL 351, BIOL 358, BIOL 364; CHEM 455, CHEM 360, CHEM 370.*

[5] *Cognate elective will be chosen from the following: BIOL 379, MATH 204, MATH 463.*

[6]*The selection of a First Year Seminar is likely to fulfill requirements both for the First Year Seminar and a General Education Requirement. Thus, the First Year Seminar will not add to the total credits for the semester. Talk with your advisor if you have any questions.*

**Students taking CHEM 350 must take CHEM 351 and those taking CHEM 450 must take CHEM 451.*

# Chemistry

## Faculty

Joan Wasilewski, Ph.D., *Chair*

Christopher A. Baumann, Ph.D.

Arthur J. Catino, Ph.D.

John C. Deak, Ph.D.

Michael W. Fennie, Ph.D.

Timothy Daniel Foley, Ph.D.

Kristen Katchur, M.A.

David E. Marx, Ph.D.

David A. Rusak, Ph.D

Nicholas Sizemore, Ph.D. Katherine A. Stumpo, Ph.D.

## Overview

The department offers six majors: Chemistry, Biochemistry, Chemistry-Business, Chemistry-Computers, Forensic Chemistry and Medical Technology. The Chemistry Department and the Biology Department co-sponsor two interdisciplinary programs: Environmental Science and Biochemistry, Cell and Molecular Biology, described in detail under those headings. The program in Chemistry is approved by the American Chemical Society, which means that graduates may be certified by the American Chemical Society if they meet the requirements. In addition, outstanding students in the Chemistry and Biochemistry majors are eligible for consideration in the combined, five-year baccalaureate/master's degree program (please refer to the *Graduate Studies Catalog* for specifics of the program). The strength of the department is indicated by the fact that The University of Scranton has been one of the leading schools in the country in the number of master's degrees awarded in chemistry.

A 2012 study by the National Science Foundation ranked the University of Scranton as tied at 22nd of over 400 Master's granting institutions as the baccalaureate source of those earning Ph.D. degrees in chemistry between 2001-2010.

Recent graduates of the department have been admitted to doctoral programs at a number of major universities including Harvard, Cornell, Johns Hopkins and the University of Pennsylvania. In addition, some graduates have attended medical and dental schools, and some have gone on to law school.

## Affiliated Programs

For information on programs affiliated with the Department of Chemistry visit Biochemistry, BS**,** Biochemistry, Cell and Molecular Biology, BS, Environmental Science, BS, and Neuroscience, BS pages. The Environmental Studies Concentration is also affiliated with the department.

Click here for information on the Accelerated Master's Degree and Combined Baccalaureate/Master's Degree Programs.

For information on the CAS/MBA Five-Year Program, visit our CAS/MBA Five-Year Program page.

## Course Information

Courses for **Chemistry** are listed under the prefixes C/CJ, CHEM and ESCI. For more information on these and all courses offered, visit our Course Descriptions page.

# Biochemistry, BS

The department offers two tracks of study for Biochemistry majors. The tracks are similar for the first three semesters, allowing students the option to change between the two tracks within that time frame, should their career goals change. The research track prepares students for graduate study in biochemistry or for a career in which independent research experience would be beneficial. The pre-professional track is more flexible and allows students a greater selection of elective courses in chemistry and biology in order to tailor their course of study to meet their individual career goals. The pre-professional track provides a strong background for students pursuing further studies in law or medicine or career paths not emphasizing research.

## Biochemistry ACS Certification Track Curriculum

| | ***Department and Number - Descriptive Title of Course*** | ***Fall Cr.*** | ***Spr. Cr.*** |
|---|---|---|---|
| **First Year** | | | |
| MAJOR (GE NSCI) | CHEM 112-113 - (E) General and Analytical Chemistry/CHEM 112L-113L | 4.5 | 4.5 |
| COGNATE (GE QUAN) | MATH 114 - (Q) Calculus I — MATH 221 - Calculus II | 4 | 4 |
| COGNATE | BIOL 141 - (E) (FYOC, FYDT Lab only) General Biology – BIOL 142 - (E) (FYOC, FYDT Lab only) General Biology | 4.5 | 4.5 |

| | | | |
|---|---|---|---|
| GE ELECT | FREE ELECT - Free Elective (FYW recommended) | 3 | |
| GE T/RS | T/RS 121 - Theology I: Introduction to the Bible | | 3 |
| GE FSEM | First Year Seminar[1] | | |
| | | **16** | **16** |
| **Second Year** | | | |
| MAJOR | CHEM 232 - (E) Organic Chemistry/CHEM 232L – CHEM 233 - (E) Organic Chemistry /CHEM 233L | 4.5 | 4.5 |
| MAJOR | CHEM 240 - Inorganic Chemistry | | 3 |
| COGNATE | PHYS 120/PHYS 120L - (E) General Physics I – PHYS 121/PHYS 121L - (E) General Physics II | 4 | 4 |
| GE ELECT | GE ELECT - Free Elective | 3 | |
| GE PHIL | PHIL 120 - Introduction to Philosophy | 3 | |
| GE PHIL | PHIL 210 - Ethics | | 3 |
| GE HUMN | HUMN ELECT - Humanities Elective | | 3 |
| | | **14.5** | **17.5** |
| **Third Year** | | | |
| MAJOR | CHEM 450 - Biochemistry I — CHEM 451 - Biochemistry II | 3 | 3 |
| MAJOR | CHEM 370 - Instrumental Analysis/CHEM 370L | 3 | 3 |
| MAJOR | CHEM 360 - Biophysical Chemistry I/CHEM 360L – CHEM 361 - Biophysical Chemistry II/CHEM 361L | 4.5 | 4.5 |
| MAJOR | CHEM 390 - (EPW) Chemical Literature and Writing – CHEM 391 - Seminar | 1 | 1 |
| GE T/RS | T/RS 122 - Theology II: Introduction to Christian Theology | | 3 |
| GE S/BH | S/BH ELECT - Social/Behavioral Electives | 3 | 3 |
| GE ELECT | GE ELECT - Free | 3 | |
| | | **17.5** | **17.5** |
| **Fourth Year** | | | |
| MAJOR | CHEM 440 - Advanced Inorganic Chemistry – CHEM 440L - Advanced Inorganic Chemistry Laboratory | 3 | 1.5 |
| MAJOR | CHEM 493 - Undergraduate Research – CHEM 494 - Undergraduate Research | 1.5 | 1.5 |

| | | | |
|---|---|---|---|
| COGNATE | COGNATE ELECT - CHEM, BCMB, BIO, PSIO or MATH | 3 | |
| GE PHIL-T/RS | PHIL ELEC - Philosophy or T/RS ELECT - T/RS Elective | 3 | |
| GE HUMN | HUMN ELECT - Humanities Electives | 3 | 6 |
| MAJOR | CHEM ELECT - Chemistry Elective, 300 Level or above | | 3 |
| MAJOR | CHEM 450L - (EPW) Biochemistry Laboratory | 1.5 | |
| | | **15** | **12** |
| | | | **Total: 126 Credits** |

[1] *The selection of a First Year Seminar is likely to fulfill requirements both for the First Year Seminar and a General Education Requirement. Thus, the First Year Seminar will not add to the total credits for the semester. Talk with your advisor if you have any questions.*

[2]*Major level course.*

## Biochemistry Pre-professional Track Curriculum

| | ***Department and Number - Descriptive Title of Course*** | ***Fall Cr.*** | ***Spr. Cr.*** |
|---|---|---|---|
| **First Year** | | | |
| MAJOR (GE NSCI) | CHEM 112-113 - (E) General and Analytical Chemistry/CHEM 112L-113L | 4.5 | 4.5 |
| COGNATE | BIOL 141 - (E) (FYOC, FYDT Lab only) General Biology – BIOL 142 - (E) (FYOC, FYDT Lab only) General Biology | 4.5 | 4.5 |
| COGNATE (GE QUAN) | MATH 109 - (Q) Pre-Calculus Mathematics – MATH 114 - (Q) Calculus I | 4 | 4 |
| GE ELECT | FREE ELECT - Free Elective -FYW recommended | | 3 |
| GE FSEM | First Year Seminar[1] | | |
| | | **13** | **16** |
| **Second Year** | | | |
| MAJOR | CHEM 232 - (E) Organic Chemistry/CHEM 232L – CHEM 233 - (E) Organic Chemistry/CHEM 233L | 4.5 | 4.5 |
| COGNATE | PHYS 120/PHYS 120L - (E) General Physics I – PHYS 121/PHYS 121L - (E) General Physics II | 4 | 4 |
| GE T/RS | T/RS 121 - Theology I: Introduction to the Bible | 3 | |
| GE PHIL | PHIL 120 - Introduction to Philosophy | | 3 |
| GE HUMN | HUMN ELECT – Humanities Electives | 3 | 3 |
| GE S/BH | S/BH ELECT – Social/Behavioral Electives | 3 | |

| | | | |
|---|---|---|---|
| | | **17.5** | **14.5** |
| **Third Year** | | | |
| MAJOR | CHEM 360 - Biophysical Chemistry I/CHEM 360L | 4.5 | |
| MAJOR | CHEM 370 - Instrumental Analysis/CHEM 370L | 3 | 3 |
| MAJOR | CHEM 450 - Biochemistry I– CHEM 451 - Biochemistry II | 3 | 3 |
| MAJOR | CHEM 390 - Chemical Literature and Writing | 1 | |
| GE T/RS | T/RS 122 - Theology II: Introduction to Christian Theology | 3 | |
| GE PHIL | PHIL 210 - Ethics | | 3 |
| GE S/BH | S/BH ELECT – Social/Behavioral Electives | | 3 |
| GE ELECT | FREE ELECT – Free Elective | 3 | 3 |
| | | **17.5** | **15** |
| **Fourth Year** | | | |
| MAJOR | CHEM 490 - Advanced Topics in Biochemistry Capstone | | 3 |
| MAJOR/COGNATE | CHEM/BIO ELECT – CHEM, BCMB, BIO, PSIO | 3 | 3 |
| COGNATE | COGNATE ELECT – Biology Elective/BCMB Elective[2] | 3 | 3 |
| GE PHIL or T/RS | PHIL ELECT - Philosophy or T/RS ELECT – T/RS Elective | 3 | |
| GE HUMN | HUMN ELECT – Humanities Electives | 3 | 3 |
| MAJOR | CHEM 450L - (EPW) Biochemistry Laboratory | 1.5 | |
| GE ELECT | FREE ELECT – Free Elective | | 3 |
| | | **13.5** | **15** |
| | | | **Total: 122 Credits** |

*[1] The selection of a First Year Seminar is likely to fulfill requirements both for the First Year Seminar and a General Education Requirement. Thus, the First Year Seminar will not add to the total credits for the semester. Talk with your advisor if you have any questions.*

*[2]Biology course classified as Molecular & Cellular (MC) and Biostatistics.*

## Biochemistry Minor

The minor in Biochemistry includes Organic Chemistry (6 credits), Biochemistry I (3 credits), Biochemistry II (3 credits) or Biophysical Chemistry (3 credits), and Chemistry laboratory (3 credits).

# Chemistry, BS

## Chemistry Curriculum

| | *Department and Number - Descriptive Title of Course* | *Fall Cr.* | *Spr. Cr.* |
|---|---|---|---|
| **First Year** | | | |
| MAJOR (GE NSCI) | CHEM 112-113 - (E) General and Analytical Chemistry/CHEM 112L-113L | 4.5 | 4.5 |
| COGNATE (GE QUAN) | MATH 114 - (Q) Calculus I — MATH 221 - Calculus II | 4 | 4 |
| GE T/RS–PHIL | T/RS 121 - Theology I: Introduction to the Bible — PHIL 120 - Introduction to Philosophy | 3 | 3 |
| GE ELECT | FREE ELECT – Free Electives (FYW, FYOC, FYDT recommended) | 3 | 3 |
| GE FSEM | First Year Seminar[2] | | |
| | | **14.5** | **14.5** |
| **Second Year** | | | |
| MAJOR | CHEM 232 - (E) Organic Chemistry/CHEM 232L — CHEM 233 - (E) Organic Chemistry/CHEM 233L | 4.5 | 4.5 |
| MAJOR | CHEM 240 - Inorganic Chemistry | | 3 |
| COGNATE | MATH 222 - Calculus III[1] | 4 | |
| COGNATE | PHYS 140/PHYS 140L - (E) Elements of Physics I — PHYS 141/PHYS 141L - (E) Elements of Physics II | 4 | 4 |
| GE PHIL-T/RS | PHIL 210 - Ethics — T/RS 122 - Theology II: Introduction to Christian Theology | 3 | 3 |
| GE HUMN | HUMN ELECT - Humanities Elective | | 3 |
| | | **15.5** | **17.5** |
| **Third Year** | | | |
| MAJOR | CHEM ELECT, Chemistry Electives (300 level or above) | 3 | 3 |
| MAJOR | CHEM 370 - Instrumental Analysis/CHEM 370L | 3 | 3 |
| MAJOR | CHEM 362 - Physical Chemistry I/CHEM 362L — CHEM 363 - Physical Chemistry II/CHEM 363L | 4.5 | 4.5 |
| MAJOR | CHEM 390 - (EPW) Chemical Literature and Writing — CHEM 391 - Seminar | 1 | 1 |
| GE HUMN | HUMN ELECT – Humanities Elective | 3 | |
| GE S/BH | S/BH ELECT – Social/Behavioral Electives | 3 | 3 |

| | | | |
|---|---|---|---|
| | | **17.5** | **14.5** |
| **Fourth Year** | | | |
| MAJOR | CHEM 440 - Advanced Inorganic Chemistry — CHEM 440L - Advanced Inorganic Chemistry Laboratory | 3 | 1.5 |
| MAJOR | CHEM 493 - Undergraduate Research — CHEM 494 - Undergraduate Research | 1.5 | 1.5 |
| MAJOR | CHEM ELECT – Chem Elective (300 Level or above) | 3 | |
| GE PHIL - T/RS | PHIL - Philosophy **or** T/RS ELECT - Elective | | 3 |
| MAJOR | CHEM 450 - Biochemistry I — CHEM 451 - Biochemistry II **or** CHEM 350 - General Biochemistry I — CHEM 351 - General Biochemistry II | 3 | 3 |
| GE ELECT | FREE ELECT – Free Electives | 3 | 3 |
| GE HUMN | HUMN ELECT - Humanities Elective | 3 | 3 |
| | | **16.5** | **15** |
| | **Total: 125.5 Credits** | | |

[1]*For ACS certification, Chemistry majors must complete MATH 222, MATH 341, CHEM 350 or CHEM 450 and one upper-division chemistry elective.*

[2] *The selection of a First Year Seminar is likely to fulfill requirements both for the First Year Seminar and a General Education Requirement. Thus, the First Year Seminar will not add to the total credits for the semester. Talk with your advisor if you have any questions.*

**An approved 3-credit EP Foundation Course may be substituted for COMM 100 and C/IL 102/102L. In this case, the total needed for graduation in this major may be reduced. Consult with your advisor if you have questions.*

## Chemistry Minor

The minor in Chemistry includes Organic Chemistry (6 credits), Physical Chemistry (6 credits), and a chemistry laboratory course (3 credits).

# Chemistry-Business, BS

The Chemistry-Business major combines theoretical and technical instruction in chemistry with management training in business. Graduates of this program will be concerned not only with chemical research and technological development but also with management problems in science-related industries.

Most Chemistry majors tend to be research-oriented although almost half of the approximately 100,000 chemists employed in American private industry are engaged in work other than research and development: management, marketing and sales. This combined degree was formulated to prepare chemists to assume these latter responsibilities.

From the point of view of the business student, almost one-third of all business graduates can expect to be employed in a chemistry-related field: pharmaceuticals, plastics, petroleum, etc. Most Business majors employed in such industries must develop, often on their own, the technical knowledge needed to understand their company's operations and products. A fundamental background in chemistry as provided in this concentration is a distinct advantage to individuals planning such careers.

## Chemistry-Business Curriculum

| | *Department and Number - Descriptive Title of Course* | *Fall Cr.* | *Spr. Cr.* |
|---|---|---|---|
| **First Year** | | | |
| MAJOR (GE NSCI) | CHEM 112-113 - (E) General and Analytical Chemistry/CHEM 112L-113L | 4.5 | 4.5 |
| COGNATE (GE QUAN) | MATH 109 - (Q) Pre-Calculus Mathematics – MATH 114 - (Q) Calculus I | 4 | 4 |
| COGNATE (GE S/BH) | ECO 153 - (S) Principles of Microeconomics – ECO 154 - (S) Principles of Macroeconomics | 3 | 3 |
| GE WRTG - SPCH | WRTG 107 - (FYW) Composition – COMM 100 - (FYOC) Public Speaking* | 3 | 3 |
| GE C/IL | C/IL 102/102L - (FYDT) Computing and Information Literacy* | | 3 |
| | OIM 251 - Excel for Business Applications | 1 | |
| GE FSEM | First Year Seminar[2] | | |
| | | **15.5** | **17.5** |
| **Second Year** | | | |
| MAJOR | CHEM 232 - (E) Organic Chemistry/CHEM 232L – CHEM 233 - (E) Organic Chemistry/CHEM 233L | 4.5 | 4.5 |
| MAJOR | ACC 253 - Financial Accounting – ACC 254 - Managerial Accounting | 3 | 3 |
| GE ELECT | ELECT - Free Elective | | 3 |
| GE T/RS | T/RS 121 - Theology I: Introduction to the Bible – T/RS 122 - Theology II: Introduction to Christian Theology | 3 | 3 |
| GE PHIL | PHIL 120 - Introduction to Philosophy | 3 | |
| GE HUMN | HUMN ELECT[1] - Humanities Electives | 3 | 3 |
| | | **16.5** | **16.5** |
| **Third Year** | | | |
| MAJOR | CHEM 320 - Industrial Chemistry | 3 | |
| MAJOR | MGT 351 - Principles of Management and Entrepreneurship I – MGT 352 - Principles of Management and Entrepreneurship II | 3 | 3 |
| MAJOR | MKT 351 - Introduction to Marketing | 3 | |
| MAJOR | CHEM 390 - (EPW) Chemical Literature and Writing | 1 | |
| MAJOR | FIN 251 - Introduction to Finance | | 3 |
| COGNATE | CMPS 330 - (EPW) Information Systems Analysis | 3 | |

| | | | |
|---|---|---|---|
| COGNATE | MATH 204 - (Q) Introduction to Statistics | | 3 |
| GE ELECT | CHEM ELECT – Chem, (210 level or above) | | 3 |
| GE PHIL | PHIL 210 - Ethics | 3 | |
| GE PHIL - T/RS | PHIL – Philosophy or T/RS ELECT – Elective | | 3 |
| | | **16** | **15** |
| **Fourth Year** | | | |
| MAJOR | OIM 351 - Introduction to Business Analytics – OIM 352 - Introduction to Operations Management | 3 | 3 |
| MAJOR | MGT 251 - Legal Environment of Business | 3 | |
| COGNATE | PHYS 120/PHYS 120L - (E) General Physics I – PHYS 121/PHYS 121L - (E) General Physics II | 4 | 4 |
| GE HUMN | HUMN ELECT – Humanities Electives | 3 | 3 |
| GE ELECT | FREE ELECT – Free Electives | 3 | 6 |
| | | **16** | **16** |
| | | | **Total: 129 Credits** |

[1]*The department recommends foreign language.*

[2] *The selection of a First Year Seminar is likely to fulfill requirements both for the First Year Seminar and a General Education Requirement. Thus, the First Year Seminar will not add to the total credits for the semester. Talk with your advisor if you have any questions.*

**An approved 3-credit EP Foundation Course may be substituted for COMM 100 and C/IL 102/102L. In this case, the total needed for graduation in this major may be reduced. Consult with your advisor if you have questions.*

# Forensic Chemistry, BS

In recent years, public and academic interest in forensic science opportunities has soared. Demand for those trained in forensic science is increasing, and educational programs are growing. In response to this growth, the National Institute of Justice (NIJ) – the research, development, and evaluation agency of the U.S. Department of Justice – initiated the Technical Working Group on Education and Training in Forensic Science (TWGED) to recommend best practices for forensic science education. Their report, released in June 2004, comments on and is evidence of the growing demand for training in forensic science.

The Forensic Chemistry program at The University of Scranton has been designed according to recommendations made by the NIJ. Specifically, the curriculum includes courses in all traditional areas of chemistry in addition to forensic chemistry lecture and lab. The curriculum is consistent with the requirements of FEPAC, the Forensic Education Program Accreditation Committee, and students completing the program receive a minor in Criminal Justice.

Forensic chemists are employed in federal, state, and county crime labs, private labs and research facilities. Students are also prepared to continue in graduate work and forensic specializations such as wildlife forensics, forensic pathology, and forensic anthropology.

## Forensic Chemistry Curriculum

| | *Department and Number - Descriptive Title of Course* | *Fall Cr.* | *Spr. Cr.* |
|---|---|---|---|
| **First Year** | | | |
| MAJOR | CHEM 112-113 - (E) General and Analytical Chemistry/CHEM 112L-113L | 4.5 | 4.5 |
| COGNATE | CJ 110 - (S) Introduction to Criminal Justice – S/CJ 213 - (S) Criminology | 3 | 3 |
| COGNATE | BIOL 141 - (E) (FYOC, FYDT Lab only) General Biology – BIOL 142 - (E) (FYOC, FYDT Lab only) General Biology | 4.5 | 4.5 |
| GE WRTG | WRTG 107 - (FYW) Composition | | 3 |
| GE FSEM | First Year Seminar[2] | | |
| GE T/RS | T/RS 121 - Theology I: Introduction to the Bible | 3 | |
| | | **15** | **15** |
| **Second Year** | | | |
| MAJOR | CHEM 232 - (E) Organic Chemistry/CHEM 232L – CHEM 233 - (E) Organic Chemistry/CHEM 233L | 4.5 | 4.5 |
| COGNATE | SOC 110 - (S) Introduction to Sociology | 3 | |
| COGNATE | CJ 237 - The Investigative Process | | 3 |
| COGNATE | PHYS 120/PHYS 120L - (E) General Physics I – PHYS 121/PHYS 121L - (E) General Physics II | 4 | 4 |
| COGNATE | MATH 114 - (Q) Calculus I | 4 | |
| GE PHIL | PHIL 120 - Introduction to Philosophy | | 3 |
| | | **15.5** | **14.5** |
| **Third Year** | | | |
| MAJOR | CHEM 240 - Inorganic Chemistry | | 3 |
| MAJOR | CHEM 350 - General Biochemistry I | 3 | |
| MAJOR | CHEM 360 - Biophysical Chemistry I/CHEM 360L | 4.5 | |
| MAJOR | CHEM 370 - Instrumental Analysis/CHEM 370L | 3 | 3 |
| MAJOR | CHEM ELECT - Chemistry Elective[1] | | 3 |
| COGNATE | CJ 310 - Criminal Justice Process | 3 | |
| COGNATE | CJ 312 - Criminal Law | 3 | |
| COGNATE | S/CJ 316 - Principles of Evidence | | 3 |

| | | | |
|---|---|---|---|
| GE T/RS | T/RS 122 - Theology II: Introduction to Christian Theology | | 3 |
| | | **16.5** | **15** |
| **Fourth Year** | | | |
| MAJOR | CHEM 470 - Forensic Chemistry/CHEM 470L | | 5 |
| MAJOR | CHEM ELECT - Chemistry Elective[1] | 3 | 3 |
| GE PHIL | PHIL 210 - Ethics | 3 | |
| GE PHIL or T/RS | PHIL ELECT- Philosophy Elective or T/RS ELECT - T/RS Elective | 3 | |
| GE HUMN | HUMN ELECT - Humanities Elective | 6 | 6 |
| GE FREE | FREE ELECT - Free Elective | 3 | |
| | | **18** | **14** |
| | | | **Total: 123.5 Credits** |

[1]*Chemistry electives include CHEM 330, CHEM 330L, CHEM 340, CHEM 342, CHEM 344, CHEM 351, CHEM 455, CHEM 361, CHEM 363, CHEM 440 and CHEM 464 and CHEM 480 (Internship).*

[2] *The selection of a First Year Seminar is likely to fulfill requirements both for the First Year Seminar and a General Education Requirement. Thus, the First Year Seminar will not add to the total credits for the semester. Talk with your advisor if you have any questions.*

# Medical Technology, BS

The Medical Technology degree program, under the direction of Dr. David Marx, is designed to train and qualify students as medical technologists or clinical laboratory scientists serving hospitals, clinical laboratories, industrial or research institutions. The program meets and exceeds the requirements of the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS). The program involves the satisfactory completion of the first three years of a curriculum of study (indicated below) at the University of Scranton and the fourth year of clinical education at a hospital having a School of Medical Technology approved by NAACLS. After completing the program, students take a national certification examination. To date the University has arranged affiliation with hospitals in the cities of Abington, Williamsport and Wilkes-Barre.

The curriculum for the Medical Technology program closely parallels the Biochemistry program so that students have the option to change to the latter after two years, should their career goals change.

## Medical Technology Curriculum

| | *Department and Number - Descriptive Title of Course* | *Fall Cr.* | *Spr. Cr.* |
|---|---|---|---|
| **First Year** | | | |
| MAJOR (GE NSCI) | CHEM 112-113 (E) General and Analytical Chemistry/CHEM 112L-113L | 4.5 | 4.5 |
| COGNATE (GE QUAN) | MATH 109 (Q) Pre-Calculus Mathematics – MATH 114 (Q) Calculus I | 4 | 4 |
| GE ELECTIVE | BIOL 141 (E) (FYOC, FYDT Lab only) General Biology – BIOL 142 (E) (FYOC, FYDT Lab only) General Biology | 4.5 | 4.5 |

| | | | |
|---|---|---|---|
| GE FSEM | First Year Seminar[2] | | |
| | | **13** | **13** |
| **Second Year** | | | |
| MAJOR | CHEM 232 - (E) Organic Chemistry/CHEM 232L – CHEM 233 - (E) Organic Chemistry/CHEM 233L | 4.5 | 4.5 |
| GE ELECT | BIOL 250 - Microbiology (MC) – BIOL 245 - (EPW: lab only) General Physiology (S) | 5 | 4.5 |
| GE TR/S | T/RS 121 - Theology I: Introduction to the Bible – T/RS 122 - Theology II: Introduction to Christian Theology | 3 | 3 |
| GE PHIL | PHIL 120 - Introduction to Philosophy | 3 | |
| GE WRTG | WRTG 107 - (FYW) Composition | 3 | |
| GE S/BH | S/BH ELECT - Social/Behavioral Elective | | 3 |
| GE HUMN | HUMN ELECT - Humanities Elective | | 3 |
| | | **18.5** | **18** |
| **Third Year** | | | |
| MAJOR | CHEM 350 - General Biochemistry I | 3 | |
| MAJOR | CHEM 370 - Instrumental Analysis/CHEM 370L | | 6 |
| COGNATE | BIOL 344 - Principles of Immunology (MC) | | 3 |
| GE PHIL - PHIL OR T/RS | PHIL 210 - Ethics or T/RS ELECT - Elective | 3 | 3 |
| GE HUMN | HUMN ELECT - Humanities Elective | 6 | 3 |
| GE S/BH | S/BH ELECT - Social/Behavioral Elective | 3 | |
| | | **15** | **15** |
| **Fourth Year[1]** | | | |
| MAJOR | Clinical Education | | |
| MAJOR | Clinical Microbiology | | |
| MAJOR | Clinical Chemistry | | |

| | | | |
|---|---|---|---|
| MAJOR | Clinical Hematology/Coagulation | | |
| MAJOR | Clinical Immunohematology | | |
| MAJOR | Clinical Immunology/Serology | | |
| MAJOR | Clinical Seminar | | |
| | | **16** | **16** |
| | **Total: 124.5 Credits** | | |

[1] *There is a $125 Clinical Year Fee charged for each semester of senior year to cover University administrative costs. The student is not, however, charged University tuition for the credits earned in senior year. Some hospitals may charge their own fees. The department has an outstanding record in having its students accepted into medical-technology programs. It should be clear, however, that admission to clinical education is competitive and dependent on the student's academic record and success in the interview. The hospital is responsible for selection. A delay in beginning the clinical education may delay a student's graduation. Credits for senior-year courses vary from 28 to 32, depending on the hospital. Course titles in that year may also vary.*

[2] *The selection of a First Year Seminar is likely to fulfill requirements both for the First Year Seminar and a General Education Requirement. Thus, the First Year Seminar will not add to the total credits for the semester. Talk with your advisor if you have any questions.*

**An approved 3-credit EP Foundation Course may be substituted for COMM 100 and C/IL 102/102L. In this case, the total needed for graduation in this major may be reduced. Consult with your advisor if you have questions.*

# Communication and Media

## Faculty

Howard Fisher, Ph.D., *Chair*

Darla Germeroth, Ph.D.

John Kilker, M.F.A.

Rebecca L. Mikesell, Ph.D.

Sufyan Mohammed, Ph.D.

Kimberly A. Pavlick, Ph.D.

Matthew M. Reavy, Ph.D.

Stacy Smulowitz, Ph.D.

Brian Snee, Ph.D.

John J. Strain III, M.A.

## Overview

The Department of Communication and Media offers five majors: Advertising/Public Relations, Business Communication, Communication, (communication leadership and communication & the law), Journalism & Electronic Media (newspaper, radio, television and online media), and Social Media Strategies. Students within the department are also eligible to be considered for the Accelerated CAS Bachelor's/M.B.A. Program, which is detailed in the Graduate Studies Catalog. The Department also offers minors in Business Communication, Communication, Social Media Strategies, and Sports Communication.

The Communication and Media Department prepares students for professional careers as well as advanced studies. Students who major in communication fields become knowledgeable about the subject matter from both humanistic and scientific perspectives. They also have opportunities to acquire on-the-job experiences through experiential- and service-learning internships. In addition, courses are designed to serve students in other departments of the University by developing their oral and written communication skills.

## Course Information

Courses for **Communication and Media** are listed under the prefix COMM. For more information on these courses visit our Communication and Media Department Courses page. For more information on all courses offered, visit our Course

Descriptions page.

# Advertising/Public Relations, BA

The Advertising/Public Relations major is designed for students interested in business and persuasive communication. The department offers two tracks within the major: Advertising and Public Relations. The Advertising track offers courses in research, media planning, and creative strategies in the field of advertising and related marketing communication. The Public Relations track prepares the future professional by introducing the concepts of planning and executing effective communication strategies including message design and distribution for any organization, as well as by training students in writing and editing public relations and marketing communication materials.

## Degree Program Requirements

A student wishing to earn a Bachelor of Arts degree in Advertising/Public Relations must satisfactorily complete a minimum of 37 credits from the department's course offerings. Included among these 37 credits are eight core courses required for all Advertising/Public Relations majors:

- COMM 109 - G/S/P Skill Set
- COMM 115 - (EPW) Writing for Communication
- COMM 210 - (EPW) Logical and Rhetorical Analysis
- COMM 215 - Introduction to Communication Theory
- COMM 225 - Advertising
- COMM 227 - Contemporary Public Relations
- COMM 316 - Communication Ethics
- COMM 415 - Senior Seminar

# Department Track Requirements

Although the media are interrelated, students should develop an in-depth knowledge of at least one specific field. To that end, students majoring in Advertising/Public Relations must select a track, or area of study, within the department. Although the department expects students to enroll in multiple courses within their chosen track, each track has two required courses:

# Advertising Track Curriculum

| | ***Department and Number - Descriptive Course Title*** | ***Fall Cr.*** | ***Spr. Cr.*** |
|---|---|---|---|
| **First Year** | | | |
| MAJOR | COMM 109 - G/S/P Skill Set – COMM 115 - (EPW) Writing for Communication | 1 | 3 |
| FREE ELECT | FREE ELECT - Free Elective | | 3 |
| MAJOR | COMM ELECT - COMM Elective | 3 | |
| GE WRTG-SPCH/DIGITAL | COMM 108 - (FYW) Essential Writing Skills[1] – EP Foundations (FYOC/FYDT) | 3 | 3 |
| GE HUMN | HUMN ELECT - Humanities Electives | 3 | 3 |
| GE PHIL - T/RS | PHIL 120 - Introduction to Philosophy – T/RS 121 - Theology I: Introduction to the Bible | 3 | 3 |

| | | | |
|---|---|---|---|
| GE FSEM | First Year Seminar[2] | | |
| | | **13** | **15** |
| **Second Year** | | | |
| MAJOR | COMM 210 - (EPW) Logical and Rhetorical Analysis | | 3 |
| MAJOR | COMM 215 - Introduction to Communication Theory | 3 | |
| MAJOR | COMM 225 - Advertising | 3 | |
| MAJOR | COMM 227 - Contemporary Public Relations | | 3 |
| FREE ELECT | FREE ELECT - Free Electives | 3 | 3 |
| GE PHIL - T/RS | PHIL 210 - Ethics – T/RS 122 - Theology II: Introduction to Christian Theology | 3 | 3 |
| GE QUAN - S/BH | QUAN ELECT - Quantitative Elective – S/BH ELECT - Social/Behavioral Elective | 3 | 3 |
| | | **15** | **15** |
| **Third Year** | | | |
| MAJOR | COMM 316 - Communication Ethics – COMM ELECT - COMM Elective | 3 | 3 |
| MAJOR | COMM ELECT - COMM Electives | 3 | 6 |
| FREE ELECT | FREE ELECT - Free Electives | 3 | 3 |
| GE PHIL - T/RS | PHIL ELECT - Philosophy Elective or T/RS ELECT - T/RS Elective | 3 | |
| GE NSCI | NSCI ELECT - Natural Science Electives | 3 | 3 |
| GE ELECT | FREE ELECT - Free Electives | 3 | |
| | | **18** | **15** |
| **Fourth Year** | | | |
| MAJOR | COMM 415 - Senior Seminar | 3 | |
| MAJOR | COMM ELECT - COMM Elective | | 3 |
| FREE ELECT | FREE ELECT - Free Electives | 3 | 6 |
| GE HUMN - S/BH | HUMN ELECT - Humanities Elective – S/BH ELECT - Social/Behavioral Elective | 3 | 3 |
| GE ELECT | FREE ELECT - Free Electives | 6 | 3 |
| | | **15** | **15** |
| | | | **Total: 121 Credits** |

[1]The Department of Communication and Media prefers students fulfill (FYW) requirements by completing COMM 108. However WRTG 107 or WRTG 105 and WRTG 106 may be substituted.

[2]The selection of a First Year Seminar is likely to fulfill requirements both for the First Year Seminar and a General Education Requirement. Thus, the First Year Seminar will not add to the total credits for the semester. Talk with your advisor if you have any questions.

## Public Relations Track Curriculum

| | *Department and Number - Descriptive Course Title* | *Fall Cr.* | *Spr. Cr.* |
|---|---|---|---|
| **First Year** | | Bu | |
| MAJOR | COMM 109 - G/S/P Skill Set – COMM 115 - (EPW) Writing for Communication | 1 | 3 |
| FREE | FREE ELECT - Free Elective | | 3 |
| MAJOR | COMM ELECT - COMM Elective | 3 | |
| GE WRTG-SPCH/DIGITAL | COMM 108 - (FYW) Essential Writing Skills[1] – EP Foundations (FYOC/FYDT) | 3 | 3 |
| GE HUMN | HUMN ELECT - Humanities Electives | 3 | 3 |
| GE PHIL - T/RS | PHIL 120 - Introduction to Philosophy – T/RS 121 - Theology I: Introduction to the Bible | 3 | 3 |
| GE FSEM | First Year Seminar[2] | | |
| | | **13** | **15** |
| **Second Year** | | | |
| MAJOR | COMM 210 - (EPW) Logical and Rhetorical Analysis | | 3 |
| MAJOR | COMM 215 - Introduction to Communication Theory | 3 | |
| MAJOR | COMM 225 - Advertising | 3 | |
| MAJOR | COMM 227 - Contemporary Public Relations | | 3 |
| FREE | FREE ELECT - Free Electives | 3 | 3 |
| GE PHIL - T/RS | PHIL 210 - Ethics – T/RS 122 - Theology II: Introduction to Christian Theology | 3 | 3 |
| GE QUAN - S/BH | QUAN ELECT - Quantitative Elective – S/BH ELECT - Social/Behavioral Elective | 3 | 3 |
| | | **15** | **15** |
| **Third Year** | | | |
| MAJOR | COMM 316 - Communication Ethics – COMM ELECT - COMM Elective | 3 | 3 |
| MAJOR | COMM ELECT - COMM Elective | 3 | 3 |
| FREE | FREE ELECT - FREE Electives | 3 | 3 |

| | | | |
|---|---|---|---|
| GE PHIL - T/RS | PHIL ELECT - Philosophy Elective or T/RS ELECT - T/RS Elective | 3 | |
| GE NSCI | NSCI ELECT - Natural Science Electives | 3 | 3 |
| GE ELECT | FREE ELECT - Free Electives | 3 | 3 |
| | | **18** | **15** |
| **Fourth Year** | | | |
| MAJOR | COMM 415 - Senior Seminar | 3 | |
| MAJOR | COMM ELECT - COMM Elective | | 3 |
| FREE | FREE ELECT - Free Electives | 3 | 6 |
| GE HUMN - S/BH | HUMN ELECT - Humanities Elective – S/BH ELECT - Social/Behavioral Elective | 3 | 3 |
| GE ELECT | FREE ELECT - Free Electives | 6 | 3 |
| | | **15** | **15** |
| | | | **Total: 121 Credits** |

[1]The Department of Communication and Media prefers students fulfill (FYW) requirements by completing COMM 108. However WRTG 107 or WRTG 105 and WRTG 106 may be substituted.

[2]The selection of a First Year Seminar is likely to fulfill requirements both for the First Year Seminar and a General Education Requirement. Thus, the First Year Seminar will not add to the total credits for the semester. Talk with your advisor if you have any questions.

# Business Communication, BA

Business Communication majors will complete three levels of writing courses that teach the foundations of effective writing up to complex memoranda and transactional documents. Multiple courses are designed to develop strong oral presentation skills that focus on both persuasive communication techniques and the use of graphics and visual presentations software to create highly professional presentations. Additionally, students will receive a strong foundation of coursework in a broad range of communication strategies and theories to develop enhanced team-building and leadership skills necessary in a modern professional environment. Courses will include content exploring the importance of effective intercultural communication, the development of interpersonal skills, social media, and the role of media and technology in the modern marketplace.

## Business Communication Curriculum

| | *Department and Number - Descriptive Course Title* | *Fall Cr.* | *Spr. Cr.* |
|---|---|---|---|
| **First Year** | | | |
| MAJOR | COMM 109 - G/S/P Skill Set — COMM 117 - Foundations of Business Writing and Social Media Communication | 1 | 3 |
| GE WRTG | COMM 108 - (FYW) Essential Writing Skills[1] | 3 | |
| GE SPCH | INTD 112 - (FYOC,FYDT) EP Foundation | 3 | |
| MAJOR | COMM ELECT - Communication Elective | | 3 |

| | | | |
|---|---|---|---|
| GE HUMN | HUMN ELECT - Humanities Electives | 3 | 3 |
| GE S/BH | S/BH ELECT - Social/Behavioral Elective | | 3 |
| GE PHIL - T/RS | PHIL 120 - Introduction to Philosophy — T/RS 121 - Theology I: Introduction to the Bible | 3 | 3 |
| GE FSEM | First Year Seminar[2] | | |
| | | **13** | **15** |
| **Second Year** | | | |
| MAJOR | COMM 215 - Introduction to Communication Theory — COMM 210 - (EPW) Logical and Rhetorical Analysis | 3 | 3 |
| MAJOR | COMM 230 - Principles of Business Communication — COMM 333 - Methods of Business Communication | 3 | 3 |
| FREE ELECT | FREE ELECT - Free Electives | 3 | 3 |
| GE HUMN | HUMN ELECT - Humanities Elective | | 3 |
| GE PHIL - T/RS | PHIL 210 - Ethics — T/RS 122 - Theology II: Introduction to Christian Theology | 3 | 3 |
| GE S/BH | S/BH ELECT - Social Behavioral Elective | 3 | |
| | | **15** | **15** |
| **Third Year** | | | |
| MAJOR | COMM 316 - Communication Ethics — COMM ELECT - Communication Elective | 3 | 3 |
| MAJOR | COMM 315 - The Art of the Pitch — COMM 228 - (D) Intercultural Communication | 3 | 3 |
| FREE ELECT | FREE ELECT - Free Electives | 3 | 3 |
| GE QUAN | COMM 240 - (Q) Communications Research Methods | | 3 |
| GE PHIL - T/RS | PHIL ELECT - Philosophy Elective **or** T/RS ELECT - T/RS elective | 3 | |
| GE NSCI | NSCI ELECT - Natural Science Electives | 3 | 3 |
| FREE LECT | FREE ELECT - Free Electives | 3 | 3 |
| | | **18** | **18** |
| **Fourth Year** | | | |
| MAJOR | COMM 415 - Senior Seminar — COMM 430 - Advanced Business Communication Strategies | 3 | 3 |
| FREE ELECT | FREE ELECT - Free Electives | 3 | 6 |
| GE HUMN | HUMN ELECT - Humanities Elective | 3 | |
| GE ELECT | FREE ELECT - Free Electives | 6 | 3 |
| | | **15** | **12** |

| | |
|---|---|
| | **Total: 121 Credits** |

[1]The Department of Communication prefers students fulfill (FYW) requirements by completing COMM 108. However WRTG 107 or WRTG 105 and WRTG 106 may be substituted.

[2]The selection of a First Year Seminar is likely to fulfill requirements both for the First Year Seminar and a General Education Requirement. Talk with your advisor if you have any questions.

Business Communication students are recommended to consider using 36 free elective credits toward a double major option within the Communication & Media program or Business School, such as Marketing, or consider the 21 credit Business minor.

## Business Communication Minor

The Business Communication Minor consists of 18 credits; four courses are required, and the final six credits allow students to choose from one of two electives in two separate categories.

*(Note that courses counted toward a student's major may not be counted toward the first 15 credits of the minor.)*

## Business Communication Minor Curriculum

| Required/Elective | Courses |
|---|---|
| | |
| Required | COMM 230 - Principles of Business Communication |
| Required | COMM 333 - Methods of Business Communication |
| Required | COMM 235 - Introduction to Social Media Strategies |
| Required | COMM 315 - The Art of the Pitch |
| Choose one of two electives | COMM 228 - (D) Intercultural Communication **or** COMM 229 - (D) Gender and Communication |
| Choose one of two electives | COMM 214 - Small Group Communication **or** COMM 312 - Organizational Communication |

# Communication, BA

The Communication major is designed for students interested in public speaking and organizational communication, as well as those who intend to continue their education with graduate school or law school. The department offers two tracks within the Communication major: Communication & the Law and Communication Leadership. The Communication & the Law track offers courses that deal with argumentation, debate, persuasion, propaganda, political communication and mass communication law. The Communication Leadership track prepares students for leadership in communication within an organization.

## Degree Program Requirements

A student wishing to earn a Bachelor of Arts degree in Communication must satisfactorily complete a minimum of 36 credits from the department's course offerings. Included among these 36 credits are eight core courses required for all Communication majors:

- COMM 109 - G/S/P Skill Set
- COMM 115 - (EPW) Writing for Communication
- COMM 210 - (EPW) Logical and Rhetorical Analysis
- COMM 215 - Introduction to Communication Theory
- COMM 250 - Principle Communication Competencies

- COMM 316 - Communication Ethics
- COMM 315 - The Art of the Pitch
- COMM 415 - Senior Seminar

## Department Track Requirements

Although the media are interrelated, students should develop an in-depth knowledge of at least one specific field. To that end, students majoring in Communication must select a track, or area of study, within the department. Although the department expects students to enroll in multiple courses within their chosen track, each track has two required courses:

### *Communication and the Law Track*

- COMM 211 - Argumentation and Debate
- COMM 310 - Mass Communication Law

### *Communication Leadership Media Track*

- COMM 214 - Small Group Communication
- COMM 312 - Organizational Communication

## Communication Curriculum

| | *Department and Number - Descriptive Course Title* | *Fall Cr.* | *Spr. Cr.* |
|---|---|---|---|
| **First Year** | | | |
| MAJOR | COMM 109 - G/S/P Skill Set – COMM 115 - (EPW) Writing for Communication | **1** | **3** |
| MAJOR | COMM ELECT - Comm. Elective | | **3** |
| GE FREE ELECT | GE FREE ELECT - GE Free Elective | **3** | |
| GE WRTG-SPCH/DIGITAL | COMM 108 - (FYW) Essential Writing Skills[1] – EP Foundations Elective (FYOC/FYDT) | **3** | **3** |
| GE HUMN | HUMN ELECT - Humanities Electives | **3** | **3** |
| GE PHIL - T/RS | PHIL 120 - Introduction to Philosophy – T/RS 121 - Theology I: Introduction to the Bible | **3** | **3** |
| GE FSEM | First Year Seminar[2] | | |
| | | **13** | **15** |
| **Second Year** | | | |
| MAJOR | COMM 210 - (EPW) Logical and Rhetorical Analysis | | **3** |
| MAJOR | COMM 215 - Introduction to Communication Theory | **3** | |
| MAJOR | COMM 250 Principle Communication Competencies | | **3** |

| | | | |
|---|---|---|---|
| MAJOR | COMM 315 - The Art of the Pitch | **3** | |
| GE FREE ELECT | GE FREE ELECT - GE Free Electives | **3** | **3** |
| GE PHIL - T/RS | PHIL 210 - Ethics – T/RS 122 - Theology II: Introduction to Christian Theology | **3** | **3** |
| GE QUAN - S/BH | QUAN ELECT - Quantitative Elective – S/BH ELECT - Social/Behavioral Elective | **3** | **3** |
| | | **15** | **15** |
| **Third Year** | | | |
| MAJOR | COMM 316 - Communication Ethics – COMM ELECT - COMM Elective | **3** | **3** |
| MAJOR | COMM ELECT – COMM Elective | **3** | **3** |
| GE FREE ELECT | GE FREE ELECT – GE Free Electives | **3** | **3** |
| GE PHIL - T/RS | PHIL ELECT - Philosophy Elective or T/RS ELECT - Elective | **3** | |
| GE NSCI | NSCI ELECT – Natural Science Electives | **3** | **3** |
| GE ELECT | FREE ELECT – Free Electives | **3** | **3** |
| | | **18** | **15** |
| **Fourth Year** | | | |
| MAJOR | COMM 415 - Senior Seminar | **3** | |
| MAJOR | COMM ELECT - COMM Elective | | **3** |
| GE FREE ELECT | GE FREE ELECT - GE Free Electives | **3** | **6** |
| GE HUMN - S/BH | HUMN ELECT - Humanities Elective – S/BH ELECT - Social/Behavioral Elective | **3** | **3** |
| GE FREE ELECT | GE FREE ELECT - GE Free Electives | **6** | **3** |
| | | **15** | **15** |
| | | | **Total: 121 Credits** |

[1]*The Department of Communication prefers students fulfill (FYW) requirements by completing COMM 108. However WRTG 107 or WRTG 105* and *WRTG 106 may be substituted.*

[2]*The selection of a First Year Seminar is likely to fulfill requirements both for the First Year Seminar and a General Education Requirement. Thus, the First Year Seminar will not add to the total credits for the semester. Talk with your advisor if you have any questions.*

## Communication Minor

A student wishing to minor in Communication must satisfactorily complete 18 hours to be selected with the approval of the department chair. Nine of these hours must come from the following three options:

1. COMM 115 - (EPW) Writing for Communication

2. Either COMM 210 - (EPW) Logical and Rhetorical Analysis or COMM 215 - Introduction to Communication Theory
3. COMM 316 - Communication Ethics

*Note:* COMM 100 and COMM 481 do not count toward the minor.

*Note that courses counted toward a student's major may not be counted toward the first 15 credits of the minor.*

# Journalism & Electronic Media, BA

The Journalism & Electronic Media major is designed for students interested in the fields of journalism and/or television, video and online media. The department offers two tracks within the Journalism & Electronic Media major: Journalism and Broadcasting & Electronic Media. The Journalism track offers courses that deal with evaluating news, reporting and writing stories, newsroom organization, interviewing, feature writing, improving and trimming stories, headline writing, layout, graphics, social media, search engine optimization and related informative communication. The Broadcasting & Electronic Media track educates students in the theoretical background and practical application of television production in and outside the studio, enabling them to pursue specialized projects in producing and directing programs in a variety of audio, video and multimedia formats.

## Degree Program Requirements

A student wishing to earn a Bachelor of Arts degree in Communication in Media must satisfactorily complete a minimum of 36 credits from the department's course offerings. Included among these 36 credits are eight core courses required for all Communication majors:

- COMM 109 - G/S/P Skill Set
- COMM 115 - (EPW) Writing for Communication
- COMM 210 - (EPW) Logical and Rhetorical Analysis
- COMM 215 - Introduction to Communication Theory
- COMM 222 - Television Production
- COMM 224 - (EPW) Media Writing
- COMM 316 - Communication Ethics
- COMM 415 - Senior Seminar

## Department Track Requirements

Although the media are interrelated, students should develop an in-depth knowledge of at least one specific field. To that end, students majoring in Journalism & Electronic Media must select a track, or area of study, within the department. Although the department expects students to enroll in multiple courses within their chosen track, each track has two required courses:

## Journalism Track

- COMM 324 - Advanced Newswriting
- COMM 328 - Editing

## Broadcasting & Electronic Media Track

- COMM 221 - Radio Production
- COMM 322 - Advanced Television Production

## Journalism & Electronic Media Curriculum

| | *Department and Number - Descriptive Course Title* | *Fall Cr.* | *Spr. Cr.* |
|---|---|---|---|
| **First Year** | | | |
| MAJOR | COMM 109 - G/S/P Skill Set – COMM 115 - (EPW) Writing for Communication | 1 | 3 |
| FREE ELECT | FREE ELECT - Free Elective | | 3 |
| MAJOR | COMM ELECT - COMM Elective | 3 | |
| GE WRTG-SPCH/DIGITAL | COMM 108 - (FYW) Essential Writing Skills[1] – EP Foundation Elective (FYOC/FYDT) | 3 | 3 |
| GE HUMN | HUMN ELECT - Humanities Electives | 3 | 3 |
| GE PHIL - T/RS | PHIL 120 - Introduction to Philosophy – T/RS 121 - Theology I: Introduction to the Bible | 3 | 3 |
| GE FSEM | First Year Seminar[2] | | |
| | | **13** | **15** |
| **Second Year** | | | |
| MAJOR | COMM 210 - (EPW) Logical and Rhetorical Analysis | | 3 |
| MAJOR | COMM 215 - Introduction to Communication Theory | 3 | |
| MAJOR | COMM 222 - Television Production | | 3 |
| MAJOR | COMM 224 - (EPW) Media Writing | 3 | |
| FREE ELECT | FREE ELECT - Free Electives | 3 | 3 |
| GE PHIL - T/RS | PHIL 210 - Ethics – T/RS 122 - Theology II: Introduction to Christian Theology | 3 | 3 |
| GE QUAN - S/BH | QUAN ELECT- Quantitative Elective – S/BH ELECT - Social/Behavioral Elective | 3 | 3 |
| | | **15** | **15** |
| **Third Year** | | | |
| MAJOR | COMM 316 - Communication Ethics – COMM ELECT - COMM Elective | 3 | 3 |
| MAJOR | COMM ELECT - COMM Electives | 3 | 3 |
| FREE ELECT | FREE ELECT - Free Electives | 6 | 6 |
| GE PHIL - T/RS | PHIL ELECT - Philosophy Elective or T/RS ELECT - Theology Elective | 3 | |
| GE NSCI | NSCI ELECT - Natural Science Electives | 3 | 3 |

| | | | |
|---|---|---|---|
| | | **18** | **15** |
| **Fourth Year** | | | |
| MAJOR | COMM 415 - Senior Seminar | 3 | |
| MAJOR | COMM ELECT - COMM Elective | | 3 |
| FREE ELECT | FREE ELECT - Free Electives | 3 | 6 |
| GE HUMN - S/BH | HUMN ELECT - Humanities Elective – S/BH ELECT - Social/Behavioral Elective | 3 | 3 |
| GE FREE ELECT | FREE ELECT - Free Electives | 6 | 3 |
| | | **15** | **15** |
| | | | **Total: 121 Credits** |

[1]*The Communication Department prefers students fulfill (FYW) requirements by completing COMM 108. However, WRTG 107 or WRTG 105 and WRTG 106 may be substituted.*

[2]The selection of a First Year Seminar is likely to fulfill requirements both for the First Year Seminar and a General Education Requirement. Thus, the First Year Seminar will not add to the total credits for the semester. Talk with your advisor if you have any questions.

# Social Media Strategies, BA

## Social Media Curriculum

| | *Department and Number - Descriptive Course Title* | *Fall Cr.* | *Spr. Cr.* |
|---|---|---|---|
| **First Year** | | | |
| MAJOR | COMM 109 - G/S/P Skill Set — COMM 117 - Foundations of Business Writing and Social Media Communication | 1 | 3 |
| GE WRTG | COMM 108 - (FYW) Essential Writing Skills[1] | 3 | |
| GE SPCH | INTD 112 - (FYOC,FYDT) EP Foundation | 3 | |
| MAJOR | COMM ELECT - Communication Elective | | 3 |
| GE HUMN | HUMN ELECT - Humanities Electives | 3 | 3 |
| GE S/BH | S/BH ELECT - Social/Behavioral Elective | | 3 |
| GE PHIL-T/RS | PHIL 120 - Introduction to Philosophy — T/RS 121 - Theology I: Introduction to the Bible | 3 | 3 |
| GE FSEM | First Year Seminar[2] | | |
| | | **13** | **15** |

| | | | |
|---|---|---|---|
| **Second Year** | | | |
| MAJOR | COMM 215 - Introduction to Communication Theory — COMM 210 - (EPW) Logical and Rhetorical Analysis | 3 | 3 |
| MAJOR | COMM 235 - Introduction to Social Media Strategies — COMM 227 - Contemporary Public Relations | 3 | 3 |
| FREE ELECT | FREE ELECT - Free Electives | 3 | 3 |
| GE HUMN | HUMN ELECT - Humanities Elective | | 3 |
| GE PHIL -T/RS | PHIL 210 - Ethics — T/RS 122 - Theology II: Introduction to Christian Theology | 3 | 3 |
| GE S/BH | S/BH ELECT - Social/Behavioral Elective | 3 | |
| | | **15** | **15** |
| **Third Year** | | | |
| MAJOR | COMM 316 - Communication Ethics — COMM ELECT - Communication Elective | 3 | 3 |
| MAJOR | COMM 365 - Social Media Production — COMM 265 - Social Media Communication | 3 | 3 |
| FREE ELECT | FREE ELECT - Free Electives | 3 | 3 |
| GE QUAN | COMM 240 - (Q) Communications Research Methods | | 3 |
| GE PHIL- T/RS | PHIL ELECT - Philosophy Elective **or** T/RS ELECT - T/RS elective | 3 | |
| GE NSCI | NSCI ELECT - Natural Science Electives | 3 | 3 |
| GE ELECT | FREE ELECT - Free Electives | 3 | 3 |
| | | **18** | **18** |
| **Fourth Year** | | | |
| MAJOR | COMM 415 - Senior Seminar — COMM 435 - Social Media Campaigns | 3 | 3 |
| FREE ELECT | FREE ELECT - Free Electives | 3 | 6 |
| GE HUMN | HUMN ELECT - Humanities Elective | 3 | |
| GE ELECT | FREE ELECT - Free Electives | 6 | 3 |
| | | **15** | **12** |
| | | | **Total: 121 Credits** |

[1]The Department of Communication prefers students fulfill (FYW) requirements by completing COMM 108. However WRTG 107 or WRTG 105 and WRTG 106 may be substituted.

[2]The selection of a First Year Seminar is likely to fulfill requirements both for the First Year Seminar and a General Education Requirement. Thus, the First Year Seminar will not add to the total credits for the semester. Talk with your advisor if you have any questions

## Social Media Strategies Minor

The Social Media Strategies minor consists of 18 credits. Four courses are required and students can choose two courses from four courses in a separate category.

*Note that courses counted toward a student's major may not be counted toward the first 15 credits of the minor.*

## Social Media Strategies Minor Curriculum

| Required/Elective | Courses |
|---|---|
| Required | COMM 227 - Contemporary Public Relations |
| Required | COMM 235 - Introduction to Social Media Strategies |
| Required | COMM 265 - Social Media Communication |
| Required | COMM 365 - Social Media Production |
| Choose one of two electives | COMM 225 - Advertising **or** COMM 310 - Mass Communication Law |
| Choose one of two electives | COMM 329 - Graphics **or** COMM 411 - Persuasion and Propaganda |

## Sports Communication Minor

The Sports Communication minor focuses on helping students acquire and employ the techniques of professional mass communication within the broad field of sports. Successful graduates enhance their primary major with sports communication skills to help them pursue careers in sports journalism, public relations, advertising, event planning, videography, promotion and other areas of mass communication. This minor is open to all University students.

A minor in Sports Communication requires 18 credits, as described below:

(*Note that courses counted toward a student's major may not be counted toward the first 15 credits of the minor.*)

| ***Course Number and Title*** | | ***Credits*** |
|---|---|---|
| COMM 227 - Contemporary Public Relations or COMM 235 - Introduction to Social Media Strategies | | 3 |
| COMM 222 - Television Production or COMM 365 - Social Media Production | | 3 |
| COMM 319 - Sports Writing | | 3 |
| COMM 339 - Social Media & Sports | | 3 |
| A Communication Practicum course examples include: COMM 380 - Advertising Practicum, COMM 435 - Social Media Campaigns, COMM 480 - Television Practicum or COMM 481 - Internship | | 3 |
| Three credits in any Communication elective | | 3 |
| | **Total: 18 Credits** | |

# Computing Sciences

## Faculty

Richard M. Plishka, M.S., M.B.A., *Chair*

Yaodong Bi, Ph.D.

Benjamin Bishop, Ph.D.

(Alex) Rudniy, Ph.D.

Paul M. Jackowitz, M.S.

Robert W. McCloskey, Ph.D.

Oleksandr

## Overview

The Department of Computing Sciences offers undergraduate major programs in Computer Science, Applied Computing, and Information Technology. In addition, outstanding students in computing are eligible to apply for admission into the combined five-year baccalaureate/master's degree program in Software Engineering, BS/MS. More information may be found at www.cs.scranton.edu.

## Course Information

Courses offered by the department are listed under the prefixes C/IL, CMPS, and IT. For more information on these courses, visit our Computing Sciences Department Courses page. For more information on all courses offered, visit our Course Descriptions page.

# Applied Computing, BS

This program provides students with a strong technical preparation in computing, pairing an emphasis on software development with a depth of study in a chosen application area. A student following the Business Track completes a specified collection of courses in accounting, economics, management, and marketing. The Individualized Track requires the student to complete a declared minor, concentration, or second major. In the senior year capstone course, the student, under the direction of a faculty mentor, undertakes a software project pertinent to the student's track.

Applied Computing students may be interested in the Data Science Concentration. Students with strong undergraduate records may be accepted and dually enrolled in the graduate program in Software Engineering through the Combined Baccalaureate/Master's degree program.

## Applied Computing Curriculum

| | ***Department and Number - Descriptive Title of course*** | ***Fall Cr.*** | ***Spr. Cr*** |
|---|---|---|---|
| **First Year** | | | |
| | | | |
| MAJOR | CMPS 134 - Computer Science I/CMPS 134L – CMPS 144 - Computer Science II/CMPS 144L | 4 | 4 |
| GE QUAN – COGNATE | MATH 142 - (Q) Discrete Structures – MATH 114 - (Q) Calculus I | 4 | 4 |
| GE EP | CMPS 112 - (FYDT, FYOC) Introduction to Computing and Information Technology | 3 | |
| GE EP | WRTG 107 - (FYW) Composition | | 3 |

| | | | |
|---|---|---|---|
| GE PHIL - T/RS | PHIL 120 - Introduction to Philosophy – T/RS 121 - Theology I: Introduction to the Bible | 3 | 3 |
| GE HUMN | HUMN ELECT– Humanities Electives | 3 | 3 |
| GE FSEM | First Year Seminar[1] | | |
| | | **17** | **17** |
| **Second Year** | | | |
| MAJOR | CMPS 240 - Data Structures and Algorithms – CMPS 250 - Machine Organization and Assembly Language Programming | 3 | 3 |
| MAJOR | CMPS 213 - Sophomore Colloquia I – CMPS 214 - Sophomore Colloquia II | 0.5 | 0.5 |
| COGNATE | MATH ELECT - Math Elective[2] | | 3 |
| COGNATE | COGNATE ELECT - Cognate Elective[3] | | 3 |
| GE NSCI | NSCI ELECT - Natural Science Elective | 3 | 3 |
| GE HUMN | HUMN ELECT – Humanities Elective | 3 | |
| GE S/BH | S/HB ELECT - Social Behavioral Elective | 3 | |
| GE PHIL–T/RS | PHIL 210 - Ethics – T/RS 122 - Theology II: Introduction to Christian Theology | 3 | 3 |
| | | **15.5** | **15.5** |
| **Third Year** | | | |
| MAJOR | CMPS 352 - Operating Systems | 3 | |
| MAJOR | CMPS 340 - Introduction to Database | 3 | |
| MAJOR | CMPS 313 - Junior Colloquia I – CMPS 314 - Junior Colloquia II | 0.5 | 0.5 |
| MAJOR | CMPS ELECT - Major Electives[4] | 3 | 6 |
| MAJOR | CMPS 341 - Database Systems | | 3 |
| COGNATE | COGNATE ELECT – Cognate Electives[3] | 6 | 3 |
| GE S/BH | S/BH ELECT – Social/Behavioral Elective | | 3 |
| | | **15.5** | **15.5** |
| **Fourth Year** | | | |
| MAJOR | CMPS 374 - (EPW) Fundamentals of Software Engineering – CMPS 490 - (EPW) Capstone Project | 3 | 3 |
| MAJOR | MPS ELECT - Major Elective[4] | | 3 |
| MAJOR | CMPS 413 - Senior Colloquia I – CMPS 414 - Senior Colloquia II | 0.5 | 0.5 |

| | | | |
|---|---|---|---|
| COGNATE | COGNATE ELECT - Cognate Elective[3] | 3 | |
| GE HUMN | HUMN ELECT – Humanities Elective | | 3 |
| GE PHIL | PHIL 214 - (P) Computers and Ethics | | 3 |
| GE ELECT | FREE ELECT - Free Electives | 6 | |
| | | **12.5** | **12.5** |
| | | | **Total: 121 Credits** |

*[1]The selection of a First Year Seminar is likely to fulfill requirements for both the First Year Seminar and a General Education Requirement. Thus, the First Year Seminar will not add to the total credits for the semester. Talk with your advisor if you have any questions*

*[2] MATH 204 or another departmental-approved Statistics course.*

*[3]The Applied Computing major must complete and obtain departmental approval of an Applied Computing Plan of Study Form, on which they specify how the program's Cognate and GE electives are used to fulfill one of the following tracks.*

- *The Business Track requires ECO 153 - ECO 154 as GE S/BH Electives, and ACC 253 - ACC 254, MGT 351 MGT 352, MGT 351, MKT 351 as COGNATE Electives and Free Electives.*
- *The Individualized Track requires the student to satisfy the requirements of a declared Minor, Concentration or Second Major*

*[4]Major electives in the Applied Computing major must be chosen from CMPS 260, CMPS 330, CMPS 344, CMPS 350, CMPS 354, CMPS 355, CMPS 356, CMPS 358, CMPS 360, CMPS 362, CMPS 364, CMPS 370, CMPS 372, CMPS 376, CMPS 384, CMPS 393, CMPS 440, CMPS 481, and DS 362.*

# Computer Science, BS

This ABET-accredited program's focus is on mastering the underlying concepts of computing with an emphasis on software engineering. The program is supplemented by courses in mathematics and the natural sciences and prepares students for both advanced study and wide-ranging professional careers in computing, including software development. The program includes a senior-year Capstone Project course, in which the student undertakes a project in collaboration with a faculty advisor.

Computer Science students may be interested in the Data Science Concentration. Students with strong undergraduate records may be accepted and dually enrolled in the graduate program in Software Engineering through the Combined Baccalaureate/Master's degree program.

## Computer Science Curriculum

| | ***Department and Number - Descriptive Title of Course*** | ***Fall Cr.*** | ***Spr. Cr.*** |
|---|---|---|---|
| **First Year** | | | |
| MAJOR | CMPS 134 - Computer Science I/CMPS 134L – CMPS 144 - Computer Science II/CMPS 144L | 4 | 4 |
| GE QUAN | MATH 142 - (Q) Discrete Structures | 4 | |
| COGNATE | MATH 114 - (Q) Calculus I | | 4 |
| GE EP | CMPS 112 - (FYDT, FYOC) Introduction to Computing and Information Technology | 3 | |

| | | | |
|---|---|---|---|
| GE EP | WRTG 107 - (FYW) Composition | | 3 |
| GE PHIL–T/RS | PHIL 120 - Introduction to Philosophy – T/RS 121 - Theology I: Introduction to the Bible | 3 | 3 |
| GE HUMN | HUMN ELECT – Humanities Electives | 3 | 3 |
| GE FSEM | First Year Seminar[1] | | |
| | | **17** | **17** |
| **Second Year** | | | |
| MAJOR | CMPS 240 - Data Structures and Algorithms – CMPS 250 - Machine Organization and Assembly Language Programming | 3 | 3 |
| MAJOR | CMPS 260 - Theoretical Foundations of Computer Science | | 3 |
| MAJOR | CMPS 213 - Sophomore Colloquia I — CMPS 214 - Sophomore Colloquia II | 0.5 | 0.5 |
| COGNATE | MATH 221 - Calculus II - MATH ELECTIVE[4] | 4 | 3-4 |
| GE NSCI | NSCI ELECT – Natural Science Elective[2] | 4-4.5 | 4-4.5 |
| GE PHIL–T/RS | PHIL 210 - Ethics – T/RS 122 - Theology II: Introduction to Christian Theology | 3 | 3 |
| | | **14.5-15.0** | **16.5-18** |
| **Third Year** | | | |
| MAJOR | CMPS 352 - Operating Systems – CMPS 344 - Programming Languages | 3 | 3 |
| MAJOR | CMPS 340 - Introduction to Database | 3 | |
| MAJOR | CMPS 350 - Computer Architecture | 3 | |
| MAJOR | CMPS ELECT - Major Electives[3] | | 6 |
| MAJOR | CMPS 313 - Junior Colloquia I — CMPS 314 - Junior Colloquia II | 0.5 | 0.5 |
| GE S/BH | S/BH ELECT – Social/Behavioral Electives | 3 | 3 |
| GE ELECT | FREE ELECT – Free Electives | 3 | 3 |
| | | **15.5** | **15.5** |
| **Fourth Year** | | | |
| MAJOR | CMPS 374 - (EPW) Fundamentals of Software Engineering – CMPS 490 - (EPW) Capstone Project | 3 | 3 |
| MAJOR | CMPS ELECT - Major Electives[3] | 3 | 3 |
| MAJOR | CMPS 413 - Senior Colloquia I — CMPS 414 - Senior Colloquia II | 0.5 | 0.5 |
| GE PHIL | PHIL 214 - (P) Computers and Ethics | | 3 |

| | | | |
|---|---|---|---|
| GE HUMN | HUMN ELECT – Humanities Electives | 3 | 3 |
| GE ELECT | FREE ELECT – Free Elective | 3 | |
| | | **12.5** | **12.5** |
| | | | **Total: 121-123 Credits** |

[1]*The selection of a First Year Seminar is likely to fulfill requirements for both the First Year Seminar and a General Education Requirement. Thus, the First Year Seminar will not add to the total credits for the semester. Talk with your advisor if you have any questions.*

[2]*Computer Science majors must complete at least 8 credits of courses in a laboratory science for science or engineering majors. Qualifying sequences include PHYS 140-PHYS 141, CHEM 112-113 or BIOL 141-BIOL 142, along with their associated Labs; other courses require explicit approval of the department.*

[3]*Major electives in Computer Science must be chosen from CMPS 341, CMPS 354, CMPS 355, CMPS 356, CMPS 358, CMPS 360, CMPS 362, CMPS 364, CMPS 370, CMPS 372, CMPS 376, CMPS 384, CMPS 393, CMPS 440, CMPS 481, and DS 362.*

[4]*Must be a mathematics course approved by the department.*

## Game Development Track

The Game Development track is designed to prepare graduates for professional employment as software developers in the electronic entertainment industry. In order to meet the requirements of this track, the Computer Science program requirements must be satisfied. In addition, all of the following items must be completed. Note that the additional courses may be taken as electives within the Computer Science program of study.

- CMPS 370 - Computer Graphics
- CMPS 372 - Artificial Intelligence
- MATH 351 - Linear Algebra
- ART 324 - 3D Computer-generated Animation/Content
- One additional ART or ARTH course
- A game-oriented project in CMPS 490 - (EPW) Capstone Project

## Computer Science Minor

The student must take a minimum of 21 hours including:

- MATH 142 - (Q) Discrete Structures,
- CMPS 134 - Computer Science I/CMPS 134L,
- CMPS 144 - Computer Science II/CMPS 144L,
- CMPS 240 - Data Structures and Algorithms,

and any two of:

- CMPS 250 - Machine Organization and Assembly Language Programming,
- CMPS 260 - Theoretical Foundations of Computer Science,
- IT 354 - Computer Networks,
- CMPS 340 - Introduction to Database,
- CMPS 341 - Database Systems,

- CMPS 344 - Programming Languages,
- CMPS 350 - Computer Architecture,
- CMPS 352 - Operating Systems,
- CMPS 354 - Data Communications and Networks,
- CMPS 355 - Mobile Application Development,
- CMPS 356 - Web Programming,
- CMPS 360 - Analysis of Algorithms,
- CMPS 362 - Numerical Analysis,
- CMPS 364 - Theory of Computation,
- CMPS 370 - Computer Graphics,
- CMPS 372 - Artificial Intelligence,
- CMPS 374 - (EPW) Fundamentals of Software Engineering,
- CMPS 376 - Rapid Prototyping,
- CMPS 384 - Special Topics or CMPS 440 - Compiler Design.

# Information Technology, BS

This program provides students with knowledge and abilities that prepare them for careers in IT (Information Technology) and for continued professional development. The IT professional understands, evaluates, applies, and manages the information technology resources of individuals and organizations to assist them in achieving their goals and objectives. In addition to providing such preparation in an ever changing technical landscape, this program prepares students to be effective communicators and contributing collaborators in multiple domains.

The major courses follow a well-defined prerequisite structure with pervasive topics, such as security, spanning multiple courses. A noteworthy aspect of the program is that the Cognate Area requires both breadth and depth of study in relevant areas and provides an opportunity for the completion of a related minor. A capstone course in the senior year requires each student to complete a project under the direction of a faculty advisor. Also, this major requires an internship or practicum experience.

Information Technology students may be interested in the combined MBA Five-Year Program.

## Information Technology Curriculum

| | *Department and Number - Descriptive Title of Course* | *Fall Cr.* | *Spr. Cr.* |
|---|---|---|---|
| **First Year** | | | |
| MAJOR | CMPS 134 - Computer Science I/CMPS 134L — CMPS 144 - Computer Science II/CMPS 144L | 4 | 4 |
| MAJOR | IT 120 - Human-Computer Interaction | 3 | |
| GE QUAN | MATH 142 - (Q) Discrete Structures | 4 | |
| GE EP | IT 112 - (FYDT,FYOC) Introduction to Computing and Information Technology | 3 | |
| GE EP | WRTG 107 - (FYW) Composition | | 3 |
| GE PHIL-T/RS | PHIL 120 - Introduction to Philosophy — T/RS 121 - Theology I: Introduction to the Bible | 3 | 3 |

| | | | |
|---|---|---|---|
| GE HUNM | HUMN ELECT - Humanities Electives | | 6 |
| GE FSEM | First Year Seminar[1] | | |
| | | **17** | **16** |
| **Second Year** | | | |
| MAJOR | IT 241 - Fundamentals of Information Management — IT 210 - System Administration | 3 | 3 |
| MAJOR | IT 244 - Integrative Programming | | 3 |
| MAJOR | CMPS 213 - Sophomore Colloquia I — CMPS 214 - Sophomore Colloquia II | 0.5 | 0.5 |
| COGNATE | COGNATE ELECT - Cognate Electives[2] | 3 | 3 |
| COGNATE | MATH 204 - (Q) Introduction to Statistics | 3 | |
| GE S/BH | S/BH ELECT - Social/Behavioral Electives[3] | 3 | 3 |
| GE PHIL- T/RS | PHIL 210 - Ethics — T/RS 122 - Theology II: Introduction to Christian Theology | 3 | 3 |
| | | **15.5** | **15.5** |
| **Third Year** | | | |
| MAJOR | IT 354 - Computer Networks | 3 | |
| MAJOR | IT 356 - Web Programming — IT 358 - Information Assurance & Security | 3 | 3 |
| MAJOR | CMPS 313 - Junior Colloquia I — CMPS 314 - Junior Colloquia II | 0.5 | 0.5 |
| COGNATE | COGNATE ELECT - Cognate Electives[2] | 3 | 3 |
| GE NSCI | NSCI ELECT - Natural Science Electives[4] | 3-4 | 3-4 |
| GE PHIL | PHIL 214 - (P) Computers and Ethics | | 3 |
| GE ELECT | FREE ELECT - Free Electives | 3 | 3 |
| | | **15.5-16.5** | **15.5-16.5** |
| **Fourth Year** | | | |
| MAJOR | IT 310 - (EPW) System Integration & Architecture — IT 490 - (EPW) Capstone Project | 3 | 3 |
| MAJOR | IT ELECT - IT Intern/Pract | 3 | |
| MAJOR | CMPS 413 - Senior Colloquia I — CMPS 414 - Senior Colloquia II | 0.5 | 0.5 |
| COGNATE | COGNATE ELECT - Cognate Electives[2] | 3 | 6 |
| GE HUMN | HUMN ELECT - Humanities Electives | 3 | 3 |
| | | **12.5** | **12.5** |
| | | | **Total: 120-122 Credits** |

[1]Selection of a First Year Seminar is likely to fulfill requirements for both the First Year Seminar and a General Education Requirement. Thus, the First Year Seminar will not add to the total credits for the semester. Talk with your advisor if you have any questions.

[2] At least two courses from one of the areas below, and at least one course from one of the other areas. Alternatives must be approved by the student's departmental academic advisor.

- Accounting (ACC 253 - Financial Accounting, ACC 254 - Managerial Accounting)
- Art (ART 112 - Color and Design )
- Communication (COMM 214 - Small Group Communication, COMM 312 - Organizational Communication)
- Computing (CMPS 240 - Data Structures and Algorithms, CMPS 250 - Machine Organization and Assembly Language Programming, CMPS 330 - (EPW) Information Systems Analysis, CMPS 331 - Information Systems Development)
- Finance (FIN 251 - Introduction to Finance)
- Health Administration (HADM 111 - Introduction to Health Administration, HADM 112 - Health Systems, HADM 211 - (EPW) Health Administration )
- Marketing (MKT 351 - Introduction to Marketing)
- Management (MGT 251 - Legal Environment of Business, MGT 351 - Principles of Management and Entrepreneurship I, MGT 352 - Principles of Management and Entrepreneurship II)
- Mathematical and Theoretical Foundations (CMPS 260 - Theoretical Foundations of Computer Science, MATH 114 - (Q) Calculus I, MATH 368 - Cryptography)
- Psychology (PSYC 230 - Sensation and Perception, PSYC 236 - Industrial/Organizational Psychology)
- Writing (WRTG 211 - (EPW) Writing for the Workplace)

[3]Recommendations include ECO 153, ECO 154, S/CJ 210, PSYC 110.

[4]Recommendations include BIOL 110 -111, CHEM 110-111, PHYS 120-121.

## Software Engineering, BS/MS

Students with strong undergraduate records may be accepted and dually enrolled in the graduate program in Software Engineering through the Combined Baccalaureate/Master's Degree Programs. Interested students are advised to contact the Software Engineering Program Director before their junior year.

Click here for more information on the Accelerated Master's Degree and Combined Baccalaureate/Master's Degree Programs.

# Criminal Justice and Criminology

## Faculty

Michael J. Jenkins, Ph.D., *Chair*

Sinchul Back, Ph.D.

Mehmet F. Bastug, Ph.D.

Ismail Onat, Ph.D.

Meghan Ashlin Rich, Ph.D.

James C. Roberts, Ph.D.

Jason A. Shrive, Esq.

Loreen Wolfer, Ph.D.

## Overview

The Bachelor of Science degree program in Criminal Justice has the following objectives:

1. To prepare students for careers in law enforcement at the local, state or federal level.
2. To prepare students for careers in the field of corrections and in the rehabilitation of offenders (i.e., parole, prisons, juvenile justice, etc.)

3. To provide students with academic preparation for advanced study in law, criminology, public administration and related fields. The Department of Sociology, Criminal Justice & Criminology also administers the Sociology Major, Sociology Minor, and Applied Sociology Minor.

## Sociology/Criminal Justice - Legal Studies Track

For more information, visit Sociology/Criminal Justice - Legal Studies Track.

## Criminal Justice Minor

For more information, visit Criminal Justice Minor.

## Criminology Minor

For more information, visit Criminology Minor.

For information on the CAS/MBA Five-Year Program, visit our CAS/MBA Five-Year Program page.

## Course Information

Courses for **Criminal Justice** are listed under the prefixes CJ and S/CJ. For information on these courses visit the Criminal Justice Courses page. For more information on all courses offered visit our Course Descriptions page.

# Criminal Justice, BS

## Criminal Justice Curriculum

| | *Department and Number - Descriptive Title of Course* | *Fall Cr.* | *Spr. Cr.* |
|---|---|---|---|
| **First Year** | | | |
| MAJOR | CJ 110 - (S) Introduction to Criminal Justice – S/CJ 213 - (S) Criminology | 3 | 3 |
| COGNATE | SOC 110 - (S) Introduction to Sociology | 3 | |
| EP FYDT – FYOC | Level I Digital Technology (FYDT) - Level I Oral Communication (FYOC) | | 3 |
| GE WRTG/EP FYW | WRTG 107 - (FYW) Composition | 3 | |
| GE PHIL - T/RS | PHIL 120 - Introduction to Philosophy – T/RS 121 - Theology I: Introduction to the Bible | 3 | 3 |
| GE HUMN | HUMN ELECT - Humanities Electives | 3 | 3 |
| GE ELECT | FREE ELECT - Free Elective | | 3 |
| GE FSEM | First Year Seminar[3] | | |
| | | **15** | **15** |
| **Second Year** | | | |
| MAJOR | S/CJ 219 - American Policing | 3 | |

| | | | |
|---|---|---|---|
| MAJOR | S/CJ 218 - (S) The American Court System – S/CJ 220 - American Corrections | 3 | 3 |
| MAJOR | CJ ELECT - Criminal Justice Elective (200 level)[4] | 3 | |
| GE QUAN | S/CJ 211 - (EPW,Q) Research Methods and Statistics for the Social Sciences/S/CJ 211L | | 4 |
| GE S/BH | PSYC 110 - (S) Fundamentals of Psychology | | 3 |
| GE HUMN | HUMN ELECT - Humanities Electives | 3 | 3 |
| GE PHIL - T/RS | PHIL 210 - Ethics – T/RS 122 - Theology II: Introduction to Christian Theology | 3 | 3 |
| | | **15** | **16** |
| **Third Year** | | | |
| MAJOR | S/CJ 210 - (S) Law and Society | 3 | |
| MAJOR | CJ ELECT - Criminal Justice Elective (200 level)[4] — CJ ELECT - Criminal Justice Elective (300-400 level)[4] | 3 | 3 |
| COGNATE | SOC 224 - (S,D) Race and Ethnic Relations[1] | 3 | |
| GE S/BH | PS 121 (S) U.S. Politics: Institutions & Policy | | 3 |
| GE NSCI | NSCI ELECT - Natural Science Electives | 3 | 3 |
| GE ELECT | FREE ELECT - Free Electives | 3 | 6 |
| | | **15** | **15** |
| **Fourth Year** | | | |
| MAJOR | CJ ELECT - Criminal Justice Electives (300-400 level)[4] | 3 | 3 |
| MAJOR | CJ 382 - 383 - Independent Study in Criminal Justice OR Capstone Course in CJ (Currently S/CJ 350 - (S,D) Comparative Justice Systems) OR CJ 480 - 481 - Internship Experience | | 3 |
| GE PHIL or T/RS | PHIL - Philosophy Elective or T/RS ELECT - T/RS Elective | 3 | |
| GE ELECT | FREE ELECT - Free Electives[2] | 9 | 9 |
| | | **15** | **15** |
| | | | **Total: 121 Credits** |

[1]*Or appropriate substitute as determined by advisor or chair.*

[2]*Students in the five-year College of Arts and Sciences MBA program should take the series of 1-credit MBA prep courses here. Students considering this CAS/MBA program must take MATH 108 and any prerequisites before the last semester of the senior year.*

[3]*The selection of a First Year Seminar is likely to fulfill requirements both for the First Year Seminar and a General Education Requirement. Thus, the First Year Seminar will not add to the total credits for the semester. Talk with your advisor if you have any questions.*

[4] *CJ Major Electives can include courses with either the CJ or S/CJ prefix.*

## Criminal Justice, AS

The Associate of Science degree in career-related fields has been designed as the natural companion to the Bachelor of Science degrees in those majors

## Associate in Science: Criminal Justice Curriculum

| | ***Department and Number Descriptive Title of Course*** | ***Credits*** |
|---|---|---|
| **General Education** | | |
| GE NSCI | PHYS 107 - (E) "Hands-On" Physics[1] | 3 |
| GE NSCI | ELECT – Natural Science Elective | 3 |
| GE S/BH | SOC 110 - (S) Introduction to Sociology | 3 |
| GE S/BH | PSYC 110 - (S) Fundamentals of Psychology | 3 |
| GE S/BH | PS 121 - (S) U.S. Politics: Institutions & Policy[1]–SOC 112 - (S) Social Problems[1] | 3 |
| GE SPCH–WRTG | COMM 100 - (FYOC) Public Speaking – WRTG 107 - (FYW) Composition | 6 |
| GE C/IL | C/IL 102/102L - (FYDT) Computing and Information Literacy | 3 |
| GE HUMN | HUMN ELECT – Humanities Electives[2] | 9 |
| GE PHIL–T/RS | PHIL 120 - Introduction to Philosophy – T/RS 121 - Theology I: Introduction to the Bible | 6 |
| GE PHIL or T/RS | PHIL 210 - Ethics or T/RS 122 - Theology II: Introduction to Christian Theology | 3 |
| GE ELECT | FREE ELECT – Free Elective | 3 |
| **Major/Cognates** | | |
| | CJ 110 - (S) Introduction to Criminal Justice | 3 |
| | S/CJ 210 - (S) Law and Society | 3 |
| | S/CJ 212 - Research Methods for the Social Sciences | 3 |
| | S/CJ 213 - (S) Criminology | 3 |
| | S/CJ - Major Electives | 6 |
| | **Total: 63 Credits** | |

[1] *Recommended courses.*

[2] *This could also be used for writing-intensive and/or cultural-diversity credit.*

## Criminal Justice Minor

The minor in Criminal Justice & Criminology requires 18 credits. There are six required courses:

- CJ 110 - (S) Introduction to Criminal Justice
- SOC 110 - (S) Introduction to Sociology
- S/CJ 213 - (S) Criminology
- S/CJ 219 - American Policing
- S/CJ 218 - (S) The American Court System
- S/CJ 220 - American Corrections

# Cybercrime & Homeland Security, BS

## Cybercrime & Homeland Security Curriculum

| | *Department and Number - Description Title of Course* | *Fall Cr.* | *Spr. Cr.* |
|---|---|---|---|
| **First Year** | | | |
| MAJOR | CJ 110 - (S) Introduction to Criminal Justice — CJ 240 - Cybercrime | 3 | 3 |
| GE QUANT | MATH 142 - (Q) Discrete Structures[1] | | 4 |
| EP FYDT—FYOC | CMPS 112 - (FYDT, FYOC) Introduction to Computing and Information Technology | | 3 |
| GE PHIL - GE T/RS | PHIL 120 - Introduction to Philosophy — T/RS 121 - Theology I: Introduction to the Bible | 3 | 3 |
| GE WRTG/EP FYW | WRTG 107 - (FYW) Composition | 3 | |
| GE HUMN ELECT | HUMN ELECT - Humanities Elective | 3 | |
| S/BH ELECT | S/BH ELECT - Social/Behavioral Sciences Elective | | 3 |
| GE ELECT | GE ELECT - GE Elective | 3 | |
| GE FSEM | First Year Seminar[2] | | |
| | | **15** | **16** |
| **Second Year** | | | |
| MAJOR | CYBR 110 - Foundations of Cybersecurity | 3 | |
| MAJOR | CJ 250 - Introduction to Homeland Security — CJ 235 - Cyber Law and Policy | 3 | 3 |
| COGNATE | CMPS 134 - Computer Science I — CMPS 144 - Computer Science II | 4 | 4 |

| | | | |
|---|---|---|---|
| GE PHIL | PHIL 210 - Ethics — T/RS 122 - Theology II: Introduction to Christian Theology | 3 | 3 |
| GE ELECT - GE HUMN ELECT | GE ELECT - Free Elective — GE HUMN ELECT - Humanities Elective | 3 | 3 |
| S/BH ELECT | S/BH ELECT - Social/Behavioral Sciences Elective | | 3 |
| | First Year Seminar[2] | | |
| | | **16** | **16** |
| **Third Year** | | | |
| MAJOR | CYBR 250 - Cyber Intelligence | 3 | |
| MAJOR | CYBR 260 - Introduction to Network Security — CJ 340 - Terrorism and Homeland Security | 3 | 3 |
| MAJOR | CJ or CYBR Elective[3] | | 3 |
| COGNATE | CMPS 240 - Data Structures and Algorithms or IT 354 - Computer Networks | 3 | |
| GE HUMN ELECT | HUMN ELECT - Humanities Elective | 3 | |
| GE NSCI ELECT | NSCI ELECT - Natural Science Electives | 3 | 3 |
| GE ELECT | GE ELECT - Free Elective | | 6 |
| | | **15** | **15** |
| **Fourth Year** | | | |
| MAJOR | CYBR 310 - Ethical Hacking | 3 | |
| MAJOR | CYBR 320 - Digital Forensic Investigation | | 3 |
| MAJOR | CJ 350 - Emergency Management | | 3 |
| MAJOR | CJ 382 - 383 - Independent Study in Criminal Justice or CJ 480 - 481 - Internship Experience | | 3 |
| MAJOR | CJ or CYBR Elective[3] | 3 | |
| GE PHIL or GE T/RS | PHIL ELECT - Philosophy Elective or T/RS ELECT - T/RS Elective | 3 | |
| GE HUMN | GE HUMN ELECT - Humanities Elective | 3 | |
| GE ELECT | GE ELECT - Free Electives | 3 | 6 |
| | | **15** | **15** |
| | | | **Total: 123 Credits** |

[1]*Prerequisite: MATH 005 or MATH 102 or MATH 109 or MATH 106 or Math Placement DAT score o f13 or higher.*

[2]*The selection of a First Year Seminar is likely to fulfill requirements both for the First Year Seminar and a General Education Requirement. Thus, the First Year Seminar will not add to the total credits for the semester. Talk with your advisor if you have any questions.*

[3]*200 to 400 level CJ or CYBR elective course - requires approval of Department Chairperson.*

## Crime Analysis Minor

The minor in Crime Analysis requires 23 credits. There are eight required courses:

- CJ 110 - (S) Introduction to Criminal Justice
- CJ 231 - Environmental Criminology
- S/CJ 211 - (EPW,Q) Research Methods and Statistics for the Social Sciences
- S/CJ 211L - Research Methods and Statistics for the Social Sciences Lab
- CJ 237 - The Investigative Process
- CJ 309 - Crime Analysis
- CJ 311 - GIS for Public Safety
- CJ 311L - GIS for Public Safety Lab

The remaining three credits can be fulfilled by any of the following elective courses, or by a course, research experience, or internship experience approved by the department chairperson.

- S/CJ 225 - White-Collar Crime
- CJ 338 - Police Criminalistics
- CJ 240 - Cybercrime
- S/CJ 219 - American Policing

## Criminology Minor

The minor in Criminology requires 18 credits. There are five required courses:

- S/CJ 213 - (S) Criminology
- CJ 231 - Environmental Criminology
- S/CJ 324 - Victimology
- PSYC 110 - (S) Fundamentals of Psychology
- SOC 110 - (S) Introduction to Sociology

The remaining 3 credits can be fulfilled by any of the following elective courses, or by a course, research experience, or internship experience approved by the department chairperson.

- S/CJ 214 - (S) Juvenile Delinquency
- S/CJ 225 - White-Collar Crime
- S/CJ 224 - (S) Sociology of Deviance
- S/CJ 227 - Organized Crime Patterns
- S/CJ 350 - (S,D) Comparative Justice Systems
- CJ 309 - Crime Analysis
- CJ 311 - GIS for Public Safety

# Economics

Iordanis Petsas, Ph.D., *Chair*

See Economics and Finance (KSOM) for faculty listing.

## Overview

The Arts and Sciences major in Economics offers students a strong liberal-arts background and at the same time a thorough grounding in the most quantitative of the social sciences. Its major requirements parallel those of the Kania School of Management's Economics major, while its cognate provides background in the social sciences. The major in Economics equips students with the training and background needed to assume responsible, decision-making positions in the financial sector, industries and government service. It is especially appropriate for students intending graduate studies in Economics or careers in law.

## Course Information

Courses for **Economics** are listed under the prefixes ECO and ECO/IB. For more information on these and all courses offered, visit our Course Descriptions page.

# Economics, BS (CAS)

## Economics Curriculum

| | *Department and Number - Descriptive Title of Course* | *Fall Cr.* | *Spr. Cr.* |
|---|---|---|---|
| **First Year** | | | |
| GE S/BH | ECO 153 - (S) Principles of Microeconomics – ECO 154 - (S) Principles of Macroeconomics | 3 | 3 |
| GE SPCH – WRTG | BUS 140 - (FYDT,FYOC) Business Information & Oral Proficiency – WRTG 107 - (FYW) Composition | 3 | 3 |
| GE PHIL | PHIL 120 - Introduction to Philosophy | 3 | |
| GE T/RS | T/RS 121 - Theology I: Introduction to the Bible | | 3 |
| GE QUAN | MATH ELECT – Math Option[1] | 3-4 | 3-4 |
| GE HUMN | HUMN ELECT – Humanities Elective[2] | 3 | 3 |
| GE FSEM | First Year Seminar[5] | | |
| BUS CORE | BUS 150 - Career and Professional Development | | 1 |
| | | **15-16** | **16-17** |
| **Second Year** | | | |
| MAJOR | ECO 361 - Intermediate Microeconomics – ECO 362 - Intermediate Macroeconomics | 3 | 3 |
| MAJOR | STAT 253 - Statistics for Economics | 3 | |

| | | | |
|---|---|---|---|
| COGNATE | ACC 253 - Financial Accounting | 3 | |
| COGNATE | COGNATE ELECT - Cognate Elective | | 3 |
| GE PHIL - T/RS | PHIL 210 - Ethics – T/RS 122 - Theology II: Introduction to Christian Theology | 3 | 3 |
| GE NSCI | NSCI ELECT – Natural Science Electives | | 3 |
| GE HUMN | HUMN ELECT – Humn. Electives (HIST 110-HIST 111 recommended) | 3 | |
| GE ELECT | FREE ELECT - Free Elective[4] | | 3 |
| BUS CORE | OIM 251 - Excel for Business Applications | 1 | |
| | | **16** | **15** |
| **Third Year** | | | |
| MAJOR | ECO/IB 351 - (D) Environment of International Business | 3 | |
| MAJOR | ECO ELECT - Economics Elective | 3 | 6 |
| COGNATE | FIN 251 - Introduction to Finance | | 3 |
| COGNATE | COGNATE ELECT – Cognate Electives[4] | 3 | 3 |
| GE PHIL or T/RS | PHIL - Philosophy Elective or T/RS ELECT - T/RS Elective | 3 | |
| GE ELECT | FREE ELECT - Free Elective | 3 | 3 |
| GE NSCI | NSCI ELECT - Natural Science Electives | 3 | |
| | | **18** | **15** |
| **Fourth Year** | | | |
| MAJOR | ECO 460 - Monetary and Financial Economics | 3 | |
| MAJOR | ECO ELECT - Eco. Elective – ECO 490 - Economics Seminar | 3 | 3 |
| COGNATE | COGNATE ELECT - Cognate Elective[4] | 3 | 3 |
| GE HUMN | HUMN ELECT - Humanities Elective | 3 | 3 |
| GE ELECT | FREE ELECT - Free Electives | 3 | 6 |
| | | **15** | **15** |
| | | | **Total: 125-127 Credits** |

[1] *See note on Math Options.*

[2] *If EDUC 113 is required in the first semester, it is taken in place of a humanities elective and is counted as a GE free elective. One GE free elective in the fourth year must then be taken as a humanities elective.*

[3] *If a third math course is required, it replaces this GE elective.*

[4] *Economics majors may apply up to 6 cognate credits toward a Math minor. Students taking the sequence open to Math majors are strongly urged to complete the calculus sequence by taking MATH 222, particularly if they plan on pursuing graduate studies.*

*Economics majors in the College of Arts and Sciences will apply their elective cognate credits to the following areas (exceptions require the permission of the CAS Dean): Political Science, Psychology, Sociology. Nine credits must be in the same field.*

[5] *The selection of a First Year Seminar is likely to fulfill requirements both for the First Year Seminar and a General Education Requirement. Thus, the First Year Seminar will not add to the total credits for the semester. Talk with your advisor if you have any questions.*

## Economics Minor (CAS)

18 credits consisting of:

- ECO 153 - (S) Principles of Microeconomics
- ECO 154 - (S) Principles of Macroeconomics
- ECO 361 - Intermediate Microeconomics
- ECO 362 - Intermediate Macroeconomics
- plus two upper-level economics courses.

# English and Theatre

## Faculty

Joseph E. Kraus, Ph.D., *Chair*

Robert Willenbrink, Ph.D., *Program Director for Theatre*

Teresa Grettano, Ph.D., *Program Director for First-Year Writing*

Rebecca S. Beal, Ph.D.

Jones DeRitter, Ph.D.

Daniel V. Fraustino, Ph.D.

Michael Friedman, Ph.D.

Madeline B. Gangnes, Ph.D.

Antoinette Gail Glover, Ph.D.

Leonard G. Gougeon, Ph.D.

Richard A. Larsen, M.F.A.

Bonnie L. Markowski, M.A.

Susan C. Méndez, Ph.D.

Bianca M. Sabia Moore, M.A.

Michael T. O'Steen, M.F.A.

Carl M. Schaffer, M.F.A.

Billie R. Tadros, Ph.D.

Stephen E. Whittaker, Ph.D.

## Overview

The Department of English and Theatre offers courses in literature, theatre, writing, cinema studies, pedagogy and theory. Courses are designated as English (ENLT), Theatre (THTR), Writing (WRTG) and Cinema (ENLT/CINE) and are described in Course

Descriptions under these groupings. In addition to the majors in English and Theatre described in the following section, the department offers minors in English, Theatre and Writing. English majors may pursue either minors or tracks in Theatre and Writing. English majors pursuing tracks in Writing or Theatre may place these courses in either the elective or cognate area of the major. English majors pursuing minors in Writing or Theatre may place these courses in the cognate area but not in the elective area of the major. (Courses used for a minor cannot be applied to requirements or electives within the major.)

## Course Information

Courses for **English and Theatre** are listed under the prefixes ENLT, THTR and WRTG. For more information on these courses, visit the English and Theatre Department Courses page. For more information on all courses offered, visit our Course Descriptions page.

# English, BA

## Requirements

The student majoring in English must take ENLT 140 - (CL) English Inquiry (or the equivalent course numbered from 120 - 179) and twelve other courses from the English and Theatre Department Courses designated ENLT, THTR or WRTG. Of these twelve courses, seven will be area courses (one each from B1; B-2; B-3; A-1; A-2; A-3; G). The student also must take two courses designated as EPW, and these courses may overlap with area courses and/or electives for the major.

The student must also take a course designated "Theory Intensive" and two courses at the 300- or 400-level. (A single course may satisfy both an area and/or level requirement and the theory intensive requirement.) Of the two courses at the 300 or 400-level, one of them must be a 400-level senior seminar.

No more than two ENLT courses with numbers between 120 and 179 will count toward fulfilling the credits required for the English major.

## Area Courses

The Department recommends ENLT 140 (CL) English Inquiry as the first course for an English major, but students may fulfill this requirement by taking an ENLT course numbered between 120 and 179, including ENLT First Year Seminars and the following courses:

- ENLT 120 - (CL) Introduction to Fiction
- ENLT 121 - (CL) Introduction to Poetry
- ENLT 122 - (CL) Introduction to Drama
- ENLT 123 - (CL) Masterworks of Western Civilization
- ENLT 125 - (CL) Classic American Stories
- ENLT 126 - (CL,D) Introduction to Irish Culture
- ENLT 127 - (CL) Myth of the Hero
- ENLT 129 - (CL, D) Literature and Social Justice

### B-1. British Literature to 1660

- ENLT 234 - (CL) Camelot Legend
- ENLT 235 - (CL) Literature in the Age of Chaucer
- ENLT 240 - British Literature: Medieval and Renaissance
- ENLT 340 - Late Medieval Drama
- ENLT 342 - Renaissance Poetry and Prose

### B-2. British Literature: 1660-1897

- ENLT 236 - (CL) The Romantic Protest
- ENLT 237 - (CL) The Darker Romantics
- ENLT 241 - British Literature: Restoration and 18th Century
- ENLT 242 - British Literature: Romantic and Victorian
- ENLT 345 - (CL) Restoration and 18th-Century Drama
- ENLT 349 - (CL) Restoration and 18th-Century Poetry

### B-3. British Literature: 1897 to the present

- ENLT 239 - (CL,D) The Irish Short Story
- ENLT 244 - Modern British Literature

### G. Global Anglophone & Multi-Ethnic American Literatures*

- ENLT 233 - (EPW, CL) Imagining Native Americans
- ENLT 250 - (EPW,CL,D) Multi-Ethnic American Literature
- ENLT 251 - (CL,D) Borderlands Writing
- ENLT 255 - (EPW,CL,D) African-American Literature
- ENLT 260 - (CL,D, EPW,W) Women of Color: Literature & Theory
- ENLT 348 - (CL,D) Colonial and Postcolonial Fiction

### A-1. American Literature to 1865

- ENLT 212 - (CL) Masters of Darkness
- ENLT 230 - (CL) American Romanticism
- ENLT 243 - American Literature to 1865
- ENLT 350 - Major Works: American Romantics
- ENLT 351 - Transcendentalists

### A-2. American Literature: 1865-1950

- ENLT 245 - American Literature, 1865 to the Present
- ENLT 353 - Major Works: American Realists
- THTR/ENLT 276 - (CL) American Drama, 1916-1968

### A-3. American Literature: 1950-Present*

- ENLT 258 - (CL) Contemporary American Fiction
- ENLT 259 - (CL) Contemporary American Poetry
- THTR/ENLT 277 - (CL,D) American Drama, 1968 - 2011

### Theory Intensive Courses

- ENLT 225 - (CL,D) Writing Women
- ENLT 227 - (CL,D) Frankenstein's Forebears
- ENLT 244 - Modern British Literature

- ENLT 251 - (CL,D) Borderlands Writing
- ENLT 260 - (CL,D, EPW,W) Women of Color: Literature & Theory
- ENLT 341 - (CL) Shakespeare: Special Topics
- ENLT 345 - (CL) Restoration and 18th-Century Drama
- ENLT 348 - (CL,D) Colonial and Postcolonial Fiction
- ENLT 362 - Literature and Philosophy
- ENLT 443 - Chaucer
- ENLT 462 - Literary Criticism and Theory
- WRTG 224 - (EPW) Rhetoric & Social Media
- WRTG 310 - Strategies for Teaching Writing
- THTR 212 - (CL) Theatre History II
- THTR/ENLT 275 - (CL) Continental European Drama 1880 - 1960
- THTR/ENLT 276 - (CL) American Drama, 1916-1968
- THTR/ENLT 277 - (CL,D) American Drama, 1968 - 2011

*** Note that the following courses can apply to either G or A-3, but not to both.**

- ENLT 250 - (EPW,CL,D) Multi-Ethnic American Literature
- ENLT 251 - (CL,D) Borderlands Writing
- ENLT 255 - (EPW,CL,D) African-American Literature
- ENLT 260 - (CL,D, EPW,W) Women of Color: Literature & Theory

## English Curriculum

| | *Department and Number - Descriptive Title of Course* | *Fall Cr.* | *Spr. Cr.* |
|---|---|---|---|
| **First Year** | | | |
| MAJOR | ENLT 140 - (CL) English Inquiry or equivalent | 3 | |
| MAJOR | ENLT - Area Requirement | | 3 |
| MAJOR | ENLT-WRTG-THTR Elective | | 3 |
| GE EP | WRTG 140 - (FYOC, FYDT) Digital Writing* | | 3 |
| GE HUMN – COGNATE | HUMN ELECT - Humanities Elective — COGNATE - Cognate Elective | 3 | 3 |
| GE PHIL/T/RS | PHIL 120 - Introduction to Philosophy — T/RS 121 - Theology I: Introduction to the Bible | 3 | 3 |
| GE QUAN | QUAN ELECT – Quantitative Reasoning Elective | 3 | |
| GE WRTG | WRTG 107 - (FYW) Composition | 3 | |

| | | | |
|---|---|---|---|
| GE FSEM | First Year Seminar1 | | |
| | | **15** | **15** |
| **Second Year** | | | |
| MAJOR | ENLT Area Requirement2 | 3 | 3 |
| MAJOR | ENLT-WRTG-THTR Electives2 | 3 | 3 |
| COGNATE | COGNATE ELECT – Cognate Electives | 3 | 3 |
| GE NSCI | NSCI ELECT – Natural Sciences Electives | 3 | 3 |
| GE PHIL–T/RS | PHIL 210 - Ethics — T/RS 122 - Theology II: Introduction to Christian Theology | 3 | 3 |
| | | **15** | **15** |
| **Third Year** | | | |
| MAJOR | ENLT Area Requirement2 | 3 | 3 |
| MAJOR | ENLT-WRTG-THTR Elective2 | | 3 |
| COGNATE | COGNATE ELECT – Cognate Electives | 6 | 3 |
| GE FREE | FREE ELECT – Free Electives | | 3 |
| GE PHIL or T/RS | PHIL ELECT – Philosophy Elective or T/RS ELECT – T/RS Elective | 3 | |
| GE S/BH | S/BH ELECT – Social/Behavioral Electives | 3 | 3 |
| | | **15** | **15** |
| **Fourth Year** | | | |
| MAJOR | ENLT Area Requirement2 | 3 | |
| MAJOR | ENLT 490-491 - Senior Seminar | 3 | |
| MAJOR | ENLT Area Requirement2 | | 3 |
| COGNATE | COGNATE ELECT – Cognate Electives | 3 | 3 |
| GE FREE | FREE ELECT – Free Electives | 3 | 3 |
| GE HUMN | HUMN ELECT - Humanities Electives | 3 | 6 |
| | | **15** | **15** |
| | | | **Total: 120 Credits** |

[1] *The selection of a First Year Seminar is likely to fulfill requirements both for the First Year Seminar and a General Education Requirement or it may serve as a student's gateway course (equivalent to ENLT 140). Thus, the First Year Seminar will not add to the total credits for the semester. Talk with your advisor if you have any questions.*

[2]*EPW courses may overlap with Area Requirements and/or Major Electives.*

[*]*The English & Theatre Department recommends WRTG 140, a 3-credit EP foundation course satisfying both oral and digital competencies (EP-I). Other courses may satisfy this requirement. Please consult with an advisor if you have questions.*

## English Minor

To minor in English, the student must take a minimum of six courses (18 credits). One of these courses must be ENLT 140 or the equivalent (see English, BA). The remaining 15 credits must be taken in courses that would satisfy area or elective requirements for the major. No more than two courses with a number between 120 and 179 may be counted toward the minor.

# Theatre, BA

The major in Theatre offers a broad-based liberal arts degree for the theatre generalist. Students may focus their program of study toward specific interests in theatre through the use of electives within the major.

Theatre majors are encouraged strongly to complete either a minor (perhaps in English or Writing) or a second major (perhaps in English). Other combinations are possible.

Theatre majors are required to participate in University Players productions; Theatre minors are strongly encouraged to do so. All students with an interest in theatre, whatever their major, are invited to participate in University Players productions. (See also "Theatre" under Extracurricular Activities.)

Students majoring in Theatre are required to take three introductory courses in Theatre, Acting, and Technical Theatre (THTR 110, THTR 151, THTR 121), two Theatre History courses (THTR 211, THTR 212), Design for the Theatre (THTR 213), Directing I (THTR 311), and 6 credits of Production Laboratory (THTR 280, THTR 380). Four elective courses in Theatre round out the major. Two courses in Dramatic Literature are required in the student's cognate area. Courses which would satisfy the Dramatic Literature requirement include ENLT 122, ENLT 220, ENLT 295, ENLT 340, ENLT 341, ENLT 345, ENLT 369, THTR/ENLT 275, THTR/ENLT 276, THTR/ENLT 277. Students also must take two courses designated as EPW, and these courses may overlap with other courses required for the major and/or electives.

## Theatre Curriculum

| | ***Department and Number - Descriptive Title of Course*** | ***Fall Cr.*** | ***Spr. Cr.*** |
|---|---|---|---|
| **First Year** | | | |
| MAJOR | THTR 110 - (CL) Introduction to Theatre – THTR 151 - (CA) Introduction to Acting | 3 | 3 |
| MAJOR | THTR 121 - Introduction to Technical Theatre | 3 | |
| COGNATE | COGNATE ELECT – Cognate Elective (Dramatic Literature)[2] | | 3 |
| GE WRTG | WRTG 107 - (FYW) Composition | 3 | |
| GE EP | WRTG 140 - (FYOC, FYDT) Digital Writing[*] | 3 | |
| GE QUAN | QUAN ELECT - Quantitative Reasoning Elective | | 3 |
| GE PHIL/T/RS | PHIL 120 - Introduction to Philosophy – T/RS 121 - (P) Theology I: Introduction to the Bible | 3 | 3 |
| GE FSEM | First Year Seminar[3] | | |

| | | | |
|---|---|---|---|
| | | **15** | **12** |
| **Second Year** | | | |
| MAJOR | THTR 211 - (CL) Theatre History I – THTR 212 - (CL) Theatre History II | 3 | 3 |
| MAJOR | THTR 213 - (CA) Design for the Theatre | | 3 |
| MAJOR | THTR 280 - Production Laboratory – THTR 380 - Advanced Production Lab | 1 | 2 |
| COGNATE | COGNATE ELECT – Cognate Elective (Dramatic Literature)[2] | 3 | |
| GE S/BH | S/BH ELECT – Social Behavioral Elective | 3 | |
| GE PHIL–T/RS | PHIL 210 - Ethics – T/RS 122 - (P) Theology II: Introduction to Christian Theology | 3 | 3 |
| GE NSCI | NSCI ELECT – Natural Sciences Electives | 3 | 3 |
| GE HUMN | HUMN ELECT – Humanities Elective | | 3 |
| | | **16** | **17** |
| **Third Year** | | | |
| MAJOR | THTR 311 - Directing I | | 3 |
| MAJOR | THTR ELECT – Theatre Electives[1] | 3 | 3 |
| MAJOR | THTR 280 - Production Laboratory – THTR 380 - Advanced Production Lab | 1 | 2 |
| COGNATE | COGNATE ELECT – Cognate Electives[2] | 6 | 3 |
| GE PHIL or T/RS | PHIL ELECT – Philosophy or T/RS ELECT -T/RS Elective | 3 | |
| GE S/BH | S/BH ELECT – Social/Behavioral Electives | | 3 |
| GE FREE | FREE ELECT– Free Elective | | 3 |
| | | **13** | **17** |
| **Fourth Year** | | | |
| MAJOR | THTR ELECT - Theatre Electives[1] | 3 | 3 |
| COGNATE | COGNATE ELECT - Cognate Electives[2] | 3 | 6 |
| GE HUMN | HUMN ELECT - Humanities Elective | 3 | |
| GE FREE | FREE ELECT - Free Electives | 6 | 6 |
| | | | |
| | | **15** | **15** |
| | | | **Total: 120 Credits** |

*[1]Major electives: the Theatre major must select four electives from the following: any THTR course at the 200 level or higher; WRTG 215, WRTG 315, and ENLT courses 200 level or higher that qualify as dramatic literature courses.*

*[2]Cognate electives must include two courses in dramatic literature.*

*[3]The selection of a First Year Seminar is likely to fulfill requirements both for the First Year Seminar and a General Education Requirement. Thus, the First Year Seminar will not add to the total credits for the semester. Talk with your advisor if you have any questions.*

**The Department of English & Theatre recommends that students take WRTG 140, a 3-credit EP foundation course satisfying both digital and oral competencies (EP-I) instead of COMM 100 and C/IL 102/102L. Other courses may satisfy this requirement, as well. Please consult your advisor if you have questions.*

# Theatre Minor

To minor in Theatre, the student must take a minimum of six courses (18 credits).

## Required Courses:

Three courses are required:

- THTR 110 - (CL) Introduction to Theatre
- THTR 151 - (CA) Introduction to Acting

  and either

- THTR 211 - (CL) Theatre History I

  or

- THTR 212 - (CL) Theatre History II

## Elective Courses:

Elective courses counted toward the minor include any course with the THTR prefix and/or

- WRTG 215 - (EPW, CA) Playwriting I

  or

- WRTG 315 - Playwriting II

## Literature Courses:

The student may also include one of the following literature courses:

- ENLT 122 - (CL) Introduction to Drama
- ENLT 220 - (CL) Shakespeare
- ENLT 295 - (CL) Shakespeare in Stratford
- ENLT 340 - Late Medieval Drama
- ENLT 341 - (CL) Shakespeare: Special Topics
- ENLT 345 - (CL) Restoration and 18th-Century Drama
- ENLT 369 - (CL) Playing God: Theatrical Presentations of Divinity
- THTR/ENLT 275 - (CL) Continental European Drama 1880 - 1960
- THTR/ENLT 276 - (CL) American Drama, 1916-1968
- THTR/ENLT 277 - (CL,D) American Drama, 1968 - 2011

## Writing Minor

To minor in Writing, the student must take a minimum of six courses (18 credits). All six courses must carry the WRTG prefix, and all six must be listed at the 200 level or above. The student must take at least one course in Creative Writing and one course in Applied Writing.

### Creative Writing Courses

- WRTG 213 - (EPW) Fiction Writing I
- WRTG 214 - (EPW) Creative Nonfiction Writing I
- WRTG 215 - (EPW, CA) Playwriting I
- WRTG 216 - (EPW) Poetry Writing I
- WRTG 313 - Fiction Writing II
- WRTG 314 - Creative Nonfiction Writing II
- WRTG 315 - Playwriting II
- WRTG 316 - Poetry Writing II

### Applied Writing Courses

- WRTG 210 - (EPW) Advanced Composition
- WRTG 211 - (EPW) Writing for the Workplace
- WRTG 212 - Writing for the Law
- WRTG 218 - Writing the Web
- WRTG 223 - Rhetoric & Public Discourse
- WRTG 224 - (EPW) Rhetoric & Social Media
- WRTG 310 - Strategies for Teaching Writing

# Environmental Science

Arthur J. Catino Ph.D., *Co-Director, Chemistry Department;*
Robert J. Smith Ph.D., *Co-Director, Biology Department*

***See Biology and Chemistry for faculty listings.***

## Overview

The Environmental Science major is an interdisciplinary program of the Biology and Chemistry Departments at The University of Scranton. The Environmental Science major has the following objectives:

1. To prepare students for positions (in the public or private sector) in the broad field of environmental analysis, compliance, and technology;
2. To prepare students for advanced study in environmental science;
3. To provide a sufficiently comprehensive science and liberal arts background to allow students to pursue advanced training or work in other fields that deal with environmental issues, e.g., environmental law, environmental health, and environmental regulation in business and industry.

The Environmental Science program provides a rigorous and comprehensive grounding in the biological, chemical, and physical aspects of the natural environment, and in the analytical and instrumental techniques used to investigate environmental problems.

Upper-class students may choose to focus more closely on either the chemical or biological aspects of environmental science, and must complete either an undergraduate research project or an internship in environmental science. The program also is designed to expose students to the social, political, regulatory, economic, and ethical concerns that are commensurate with defining and addressing environmental issues in today's world.

## Course Information

Courses for **Environmental Science** are listed under the prefixes CHEM, BIOL and ESCI. For more information on these and all courses offered, visit our Course Descriptions page.

# Environmental Science, BS

For more information about this program, visit the websites for the Biology and Chemistry departments.

## Curriculum

I. Required courses in the major and cognate include courses in Biology, Chemistry, Environmental Science, Natural Science, Mathematics, and Physics.

II. The student must complete four courses from among the following electives within the major; at least one course must be chosen from each group:

### *Group A*

- CHEM 342 - Environmental Toxicology
- CHEM 344 - Environmental Geochemistry
- CHEM 350 - General Biochemistry I
- CHEM 455 - Chemical Toxicology

### *Group B*

- BIOL 195 - (E) Tropical Biology
- BIOL 250 - Microbiology (MC)
- BIOL 272 - Invertebrate Biology (S)
- BIOL 273 - Marine Ecology (MO)
- BIOL 274 - Conservation Biology (MO)
- BIOL 349 - Plant Physiology (S)
- BIOL 370 - (W: lab only) Animal Behavior (MO)
- BIOL 374 - Vertebrate Biology (MO)
- BIOL 375 - Evolution (MO)
- BIOL 472 - Systems Ecology (MO)
- BIOL 473 - Estuarine Ecology (MO)

III. In fulfilling GE requirements, students are strongly encouraged to enroll in

- ECO 303 - (S) The Economics of Environmental Issues
- PHIL 213 - (P) Environmental Ethics
- PS 230 - (S) Environmental Laws and Regulations
- PSYC 239 - Environmental and Conservation Psychology

## Environmental Science Curriculum

| | *Department and Number - Descriptive Title of Course* | *Fall Cr.* | *Spr. Cr.* |
|---|---|---|---|
| **First Year** | | | |
| MAJOR (GE NSCI) | CHEM 112-113 - (E) General and Analytical Chemistry/CHEM 112L-113L | 4.5 | 4.5 |
| MAJOR | BIOL 141/141L - (E) (FYOC, FYDT Lab only) General Biology – BIOL 142/142L - (E) (FYOC, FYDT Lab only) General Biology | 4.5 | 4.5 |
| MAJOR | NSCI 201 - (E) Science and the Human Environment | | 3 |
| GE WRTG | WRTG 107 - (FYW) Composition | 3 | |
| GE FSEM | First Year Seminar[4] | | |
| | | **12** | **12** |
| **Second Year** | | | |
| MAJOR | CHEM 232 - (E) Organic Chemistry/CHEM 232L – CHEM 233 - (E) Organic Chemistry/CHEM 233L | 4.5 | 4.5 |
| MAJOR | BIOL 371 - (EPW: Lab only) Ecology (MO) | 5 | |
| MAJOR | BIOL 379 - Biostatistics | | 3 |
| COGNATE (GE QUAN) | MATH 109 - (Q) Pre-Calculus Mathematics – MATH 114 - (Q) Calculus I[1] | 4 | 4 |
| GE HUMN | HUMN ELECT - Humanities Elective | | 3 |
| GE PHIL–T/RS | PHIL 120 - Introduction to Philosophy – T/RS 121 - Theology I: Introduction to the Bible | 3 | 3 |
| | | **16.5** | **17.5** |
| **Third Year** | | | |
| MAJOR | CHEM 340 - Environmental Chemistry | 3 | |
| MAJOR | CHEM 370 - Instrumental Analysis — CHEM 370L - Instrumental Analysis Laboratory | 3 | 3 |
| MAJOR | ESCI ELECT - Environmental Science Elective | | 3-5 |
| GE S/BH | S/BH ELECT - Social/Behavioral Electives[2] | 3 | 3 |
| GE PHIL–T/RS | PHIL 210 - Ethics – T/RS 122 - Theology II: Introduction to Christian Theology | 3 | 3 |
| GE HUMN | HUMN ELECT - Humanities Elective | 3 | |
| GE ELECT | PHYS 120/PHYS 120L - (E) General Physics I – PHYS 121/PHYS 121L - (E) General Physics II[3] | 4 | 4 |

| | | | |
|---|---|---|---|
| | | **19** | **16-18** |
| **Fourth Year** | | | |
| MAJOR | ESCI ELECT - Environmental Science Electives | 6-10 | 3 |
| MAJOR | ESCI 480 - Internship in Environmental Science or ESCI 493 - Research in Environmental Science | 1.5 | |
| MAJOR | ESCI 481 - Internship in Environmental Science or ESCI 494 - Research in Environmental Science | | 1.5 |
| MAJOR | ESCI 440 - Topics in Environmental Science – ESCI 441 - Topics in Environmental Science | 1 | 1 |
| GE PHIL-T/RS | PHILELECT - Philosophy Elective or T/RS ELECT - T/RS Elective | 3 | |
| GE HUMN | HUMN ELECT - Humanities Electives | 3 | 3 |
| GE S/BH | S/BH ELECT - Social/Behavioral Elective | | 3 |
| GE ELECT | FREE ELECT - Free Electives | | 6 |
| | | **14.5-18.5** | **17.5** |
| | | | **Total: 125-131 Credits** |

[1]*Students entering exempt from MATH 109 may select a course in chemistry, biology, physics or math.*

[2]*PS 230 and ECO 303 strongly recommended.*

[3]*Or PHYS 140/PHYS 140L – PHYS 141/PHYS 141L: Elements of Physics I-II.*

[4] *The selection of a First Year Seminar is likely to fulfill requirements both for the First Year Seminar and a General Education Requirement. Thus, the First Year Seminar will not add to the total credits for the semester. Talk with your advisor if you have any questions.*

# History

## Faculty

David J. Dzurec III, Ph.D., *Chair*

Josephine M. Dunn, Ph.D., *Director, Art and Music Program*

Roy Palmer Domenico, Ph.D., *Director, International Studies Program*

Sean Brennan, Ph.D.

Shuhua Fan, Ph.D.

Christopher P. Gillett, Ph.D.

Aiala T. Levy, Ph.D.

Susan L. Poulson, Ph.D.

Adam J. Pratt, Ph.D.

Paul E. Sampson, Ph.D.

Robert W. Shaffern, Ph.D.

## Mission Statement

The History Department embraces the Catholic and Jesuit spiritual vision and tradition of intellectual excellence. Through the pursuit of the truth of humankind's past, the Department, cultivates critical scholarly habits and answers St Ignatius's call for his followers to "seek God in all things." In so doing, members of the Department and their students seek a keener understanding of the human experience and their own lives.

The Department enhances the liberal arts mission of the university by providing historical perspectives on the human condition and improving students' abilities to read perceptively, write cogently, and think logically. The Department's scholars and students study documents and artifacts in order to reconstruct and understand the human endeavor. Students gain cultural awareness as they learn how to find, evaluate, and apply information about past human activities.

History alumni are equipped to navigate an ever-changing job market and world. The courses, research opportunities, internships, and co-curricular activities offered by the Department support the pursuit of a wide range of careers in such varied fields as education, archives and museum administration, law, medicine, and public service. By stressing the applicability of historical skills and knowledge, our faculty prepare students to be versatile, rigorous, and empathetic thinkers wherever life may take them.

## Overview

The department offers two majors to University students. The major in History leads to a Bachelor of Arts degree. The major in International Studies leads to a Bachelor of Science degree. Both programs are serviced by full-time faculty who bring to their classrooms a love for their specific areas of history and an enthusiasm for classroom teaching. Their individual teaching styles provide students with a wide variety of learning experiences. Through advisement, the faculty encourages students to tailor their programs to their individual interests and career goals, thus taking advantage of the flexible courses of study built into both programs. History and International Studies majors have gone on to careers in many fields, including education, business, communications, government, and law. (See the "Pre-Law Advisory Program" section of the catalog for details of the department's success in preparing students for the study of law.)

For information on the CAS/MBA Five-Year Program, visit our CAS/MBA Five-Year Program page.

## Course Information

Courses for **History** are listed under the prefixes GEOG, HIST and IS. For more information on these and all courses offered, visit our Course Descriptions page.

# History, BA

"History illuminates the human condition."[1] It is the memory of human experience. The Department of History seeks to provide its students with an understanding of the significant institutions, events, trends and individuals that have shaped that experience, thus helping them to develop a better understanding of contemporary cultures and the human condition.

The student majoring in History will be expected to demonstrate an understanding of the development of human society and culture through the study of the past, specifically the history of Europe (from the Renaissance through the 20th century) and the United States (from its beginnings through the 20th century). To accomplish this, the student will identify and describe the major individuals, groups, institutions, ideas and events that have helped to shape political, social and economic developments over time; identify and describe major historical eras or periods that have led to the present; and identify and describe the principle of cause and effect and relate historical examples. In addition, students majoring in History will apply the procedures used by historians to find and document sources, collect evidence and draw conclusions in completing original research. Students will write and speak effectively about historical issues.

[1]*Poster, "Business and History," prepared by the National Center for the Study of History, Inc., 1988. (Noted in History, It's Our Future, a publication of Phi Alpha Theta History Honor Society, Inc.)*

## History Curriculum

| | *Department and Number - Descriptive Title of Course* | *Fall Cr.* | *Spr. Cr.* |
|---|---|---|---|
| **First Year** | | | |
| MAJOR | HIST 110 - (CH) History of the United States to 1877 – HIST 111 - (CH) History of the United States from Reconstruction to the Present | 3 | 3 |
| MAJOR | HIST 120 - (CH) Europe: 1500 to the Present – HIST 121 - (CH) Europe: 1815 to Present | 3 | 3 |
| GE WRTG | WRTG 107 - (FYW) Composition | 3 | |
| GE C/IL | HIST 190 - (FYOC,FYDT) Digital History | | 3 |
| S/BH ELECT – GE QUAN | S/BH ELECT - Social/Behavioral Elective — QUAN ELECT - Quantitative Reasoning | 3 | 3 |
| GE PHIL–T/RS | PHIL 120 - Introduction to Philosophy – T/RS 121 - Theology I: Introduction to the Bible | 3 | 3 |
| GE FSEM | First Year Seminar[1] | | |
| | | **15** | **15** |
| **Second Year** | | | |
| MAJOR | HIST 290 - (EPW) The Craft of the Historian | 3 | |
| MAJOR | HIST ELECT - History Electives | 3 | 6 |
| COGNATE | COGNATE ELECT - Cognate Electives[2] | 3 | 3 |
| GE S/BH | S/BH ELECT - Social/Behavioral Elective | | 3 |
| FREE ELECT | FREE ELECT - Free Elective | 3 | |
| GE PHIL–T/RS | PHIL 210 - Ethics – T/RS 122 - Theology II: Introduction to Christian Theology | 3 | 3 |
| | | **15** | **15** |
| **Third Year** | | | |
| MAJOR | HIST ELECT - History Electives | 6 | 3 |
| COGNATE | COGNATE ELECT - Cognate Electives[2] | 3 | 3 |
| GE NSCI | NSCI ELECT - Natural Science Electives | 3 | 3 |
| GE HUMN | HUMN ELECT - Humanities Electives[3] | 3 | 3 |
| GE PHIL–T/RS | PHIL ELECT - Philosophy or T/RS ELECT - T/RS Elective | | 3 |
| | | **15** | **15** |

| Fourth Year | | | |
|---|---|---|---|
| MAJOR | HIST 490 - (EPW) Seminar in History – HIST ELECT - History Elective | 3 | 3 |
| COGNATE | COGNATE ELECT - Cognate Electives[2] | 6 | 6 |
| GE ELECT | FREE ELECT - Free Electives | 6 | 6 |
| | | **15** | **15** |
| | | | **Total: 120 Credits** |

*[1]The selection of a First Year Seminar is likely to fulfill requirements both for the First Year Seminar and a General Education Requirement. Thus, the First Year Seminar will not add to the total credits for the semester. Talk with your advisor if you have any questions.*

*[2] Students may use cognate electives to develop a second major.*

*[3] Humanities Electives may not be (CH).*

## History Minor

The History Minor shall consist of 18 credits in History. Six credits must come from the completion of one of the survey sets (that is, **HIST 110** and **HIST 111**, **HIST 120** and **HIST 121**, **HIST 125** and **HIST 126**; or **HIST 130** and **HIST 131**). The remaining twelve credits should be chosen from **HIST 290** and/or courses at the 200-level or above.

# International Studies, BS

The major in International Studies provides the student with broad knowledge of world affairs through a curriculum drawn in large measure from history and political science. Students gain a full recognition and understanding of the multitudinous forces which shape the contemporary world, including nationalism, wars, political and economic ideologies, globalization, geographic factors, cultural differentials and modern technology.

Students majoring in International Studies are expected to conduct research regarding contemporary global issues, including the formulation of research questions and the ability to locate source materials. Students should also understand the role of credible sources in the field of world politics. They should understand the role of the United States in world affairs and have insight into the lives, cultures, economics and politics of other regions of the world. It is expected that students will be able to communicate effectively in writing and orally concerning global and contemporary issues, results of research, and analyses. In addition, International Studies students will have basic reading skills in a foreign language.

Students interested in completing an Asian Studies Concentration or a Latin American Studies Concentration within the International Studies Major should meet with the respective Directors of the Concentration and the International Studies Advisor early in their academic career in order to plan their course of study.

In order to further strengthen the student's knowledge, a study abroad experience is encouraged; over half of International Studies students spend a semester or more studying in a foreign country.

## International Studies Curriculum

| | *Department and Number - Descriptive Title of Course* | *Fall Cr.* | *Spr. Cr.* |
|---|---|---|---|
| **First Year** | | | |
| MAJOR | HIST 110 - (CH) History of the United States to 1877 – HIST 111 - (CH) History of the United States from Reconstruction to the Present | 3 | 3 |
| COGNATE | PS 120 - (S) U.S. Politics: Principles & Citizenship – PS 121 - (S) U.S. Politics: Institutions & Policy | 3 | 3 |

| | | | |
|---|---|---|---|
| COGNATE | LANG 101–102 Elementary or 211–212 Intermediate | 3 | 3 |
| GE WRTG–SPCH | WRTG 107 - (FYW) Composition – COMM 100 - (FYOC) Public Speaking* | 3 | 3 |
| GE C/IL | C/IL 102/102L - (FYDT) Computing and Information Literacy* | 3 | |
| GE QUAN | QUAN ELECT - Quantitative-Reasoning Elective | | 3 |
| GE FSEM | First Year Seminar[2] | | |
| | | **15** | **15** |
| **Second Year** | | | |
| MAJOR | HIST 120 - (CH) Europe: 1500 to the Present – HIST 121 - (CH) Europe: 1815 to Present | 3 | 3 |
| MAJOR | PS 212 - (S) International Relations | 3 | |
| MAJOR | HIST ELECT - History Elective or PS ELECT - Political Sci. Elective[1] | | 3 |
| MAJOR | GEOG 134 - (S) World Regional Geography | | 3 |
| COGNATE | LANG - Intermediate or Advanced | 3 | 3 |
| GE PHIL–T/RS | PHIL 120 - Introduction to Philosophy – T/RS 121 - Theology I: Introduction to the Bible | 3 | 3 |
| GE ELECT | FREE ELECT - Free Elective | 3 | |
| | | **15** | **15** |
| **Third Year** | | | |
| MAJOR | HIST - History Electives or PS ELECT - Political Sci. Electives[1] | 3 | 3 |
| GE S/BH | ECO 153 - (S) Principles of Microeconomics – ECO 154 - (S) Principles of Macroeconomics | 3 | 3 |
| GE NSCI | NSCI ELECT - Natural Science Electives | 3 | 3 |
| GE HUMN | HUMN ELECT - Humanities Electives | 3 | 3 |
| GE ELECT | FREE ELECT - Free Elective | 3 | |
| GE PHIL–T/RS | PHIL 210 - Ethics – T/RS 122 - Theology II: Introduction to Christian Theology | 3 | 3 |
| | | **18** | **15** |
| **Fourth Year** | | | |
| MAJOR | IS 390 - Seminar in International Studies — FREE ELECT - Free Elective | 3 | 3 |
| MAJOR | HIST ELECT - History Electives of PS ELECT - Political Sci. Electives[1] | 3 | 3 |

| | | | |
|---|---|---|---|
| COGNATE | COGNATE ELECT - Cognate Electives | 3 | 3 |
| GE ELECT | FREE ELECT - Free Electives | 3 | 6 |
| GE PHIL or T/RS | PHIL - Philosophy or T/RS ELECT - T/RS Elective | 3 | |
| | | **15** | **15** |
| | | | **Total: 123 Credits** |

[1] *Major electives to be selected from PS 213 ,PS 217, PS 219, PS 221, PS 222, LAS 295, PS 318, PS 319, PS 323, PS 328, PS 330, PS 331, PS 332, PS 333, PS 334, PS 335, PS 338; HIST 125, HIST 126, HIST 132, HIST 133, HIST 290, HIST 211, HIST 213, HIST 214, HIST 215, HIST 219, HIST 220, HIST 226, HIST 242, HIST 295, HIST 335, HIST 338, HIST 339; GEOG 217 or PS 210 recommended.*

[2] *The selection of a First Year Seminar is likely to fulfill requirements both for the First Year Seminar and a General Education Requirement. Thus, the First Year Seminar will not add to the total credits for the semester. Talk with your advisor if you have any questions.*

**An approved 3-credit EP Foundation Course may be substituted for COMM 100 and C/IL 102/102L-C/IL 104. In this case, the total needed for graduation in this major may be reduced. Consult with your advisor if you have questions.*

## International Studies Minor

(History and Political Science majors may not minor or double major in International Studies.)

A minor in International Studies (18 credits) should include:

HIST 110 - (CH) History of the United States to 1877 – HIST 111 - (CH) History of the United States from Reconstruction to the Present or PS 120 - (S) U.S. Politics: Principles & Citizenship – PS 121 - (S) U.S. Politics: Institutions & Policy

plus four additional courses from the following:

PS 212 - (S) International Relations,

PS 213 - (D) Modern Africa,

PS 217 - Comparative Government

PS 219 - (S,D) Latin American Politics,

PS 221 - Politics of Southeast Asia,

PS 222 - Politics in Russia,

LAS 295 - (S,D) Mexican Culture and Language,

PS 319 - (EPW) U.S. Foreign Policy Process,

PS 323 - (S,D) Central America,

PS 328 - (D) Modern China,

PS 330 - Europe in World Affairs,

PS 331 - (EPW) The European Union,

PS 332 - (D) Modern Japan,

PS 333 - United States-Latin American Relations,

PS 334 - Comparative Civil Wars,

PS 338 - Politics of Islam,

HIST 125 - (CH,D) Colonial Latin America,

HIST 126 - (CH,D) Modern Latin America,

HIST 132 - (CH,D) Africa to 1870,

HIST 133 - (CH,D) Africa Since 1870,

HIST 211 - The Third World: Empire to Independence,

HIST 213 - (CH,D) Gender and Family in Latin America,

HIST 214 - (CH,D) History of Contemporary World Politics,

HIST 215 - (CH,D) Church and Society in Latin America,

HIST 219 - (CH,D) Modern World History,

HIST 220 - (CH) War and Modern Society,

HIST 226 - Russia from Revolution to Revolution,

HIST 240 - (D) Modern Italy

HIST 242 - (CH,D) Modern East Asia,

HIST 295 - (CH) Britain: Past and Present,

HIST 335 - World War II, Cold War and Détente,

HIST 338 - American Foreign Relations 1776 - 1900,

HIST 339 - 20th Century American Foreign Relations,

GEOG 217 - (D,S) Cultural Geography

.

# Individualized Major

## Board Members

Josephine Dunn, Ph.D.

Kathleen G. Dwyer, Ph.D.

Richard Klonoski, Ph.D.

## Overview

The Individualized Major (IM) program provides University of Scranton students the opportunity to design interdisciplinary or multidisciplinary programs of study not presently available within the established University structure. Students may create their own unique programs of study, including specific learning outcome objectives, upgrade existing concentrations into majors, and use an IM major as a second major to explore interdisciplinary or multidisciplinary extensions of an established major. Students are not guaranteed an IM major program of study. Approval of all IM major program proposals is predicated on availability of faculty mentors and on an academically sound IM proposal.

## Course Information

For information on courses offered, visit our Course Descriptions page.

# Individualized Major

## The IM Proposal

### *Eligibility*

A student must have a minimum GPA of 3.00 to be eligible to submit an IM proposal. A current CAPP sheet should be submitted with the application.

### *Timeline for Preparation and Approval*

An IM must be declared and approved by the Individualized Program Board and the CAS Dean no later than the second semester of the sophomore year or four full semesters before graduation (e.g., for students matriculating with advanced standing). Normally an IM cannot be declared before the second semester of matriculation.

- An IM proposal must be submitted within the first six weeks of a semester to be considered by the committee during that semester.
- The student is responsible for preparing the IM proposal.
- The proposal requires the written endorsement of both mentors who agree to continue to provide support to the student as he/she progresses through the major.

### *Faculty Mentorship*

An IM requires the mentorship of two faculty members. The primary mentor will be a full-time member in the department or major that provides the most of the credits in the IM. The co-mentor will be a full-time Faculty member from a different department or major that also provides credits in the IM. Both mentors must endorse the IM proposal, approve the capstone integrative project proposal and grade the project. The mentor will act as the official academic advisor, but the student's course schedule requires the signature of both mentors. No faculty member can be a mentor or co-mentor for more than two IM majors at any given time.

At the completion of every semester, the mentors and student will prepare and file a report to the Individualized Major Program Board. This report will evaluate progress within the major and will include a one or two page reflection from the student with regards to the

integrative accomplishments of the previous semester (e.g., integrative methodologies, knowledge and insights across disciplines). Progress will be evaluated both in terms of completing courses and maintaining a C average in major and required courses.

### *Content*

The IM proposal consists of a narrative, title and brief catalog-style description of the proposed major program, and a list of courses along with a timetable for taking the courses. In the narrative, a student should discuss:

- How the IM will meet his/her academic and *learning* goals and outcomes.
- How the student and mentors will assess whether the student's academic and *learning* goals and outcomes have been accomplished.

How the chosen list of courses will adequately comprise the proposed IM.

- How the chosen title is related to the course list and accurately reflects the course content of the IM.

The IM title should succinctly and accurately reflect the curriculum content of the IM. If it is necessary to use the name of a major department/program in the title, written permission from the chair of the department is required. The catalog-style description is limited to 50 words.

### *Curricular Requirements*

The minimum number of credits in an IM is 36. The typical IM will have a core of no less than 15 to 18 credits coming from one academic department/major in the College of Arts and Sciences, and at least half the credits of the major must be from CAS departments/majors. No more than half of the credits for an IM can be from a single existing major program of study. The IM requires the completion of a 3- to 6-credit integrative capstone project which should synthesize the disciplines represented in the IM and reflect the nature of the IM.

Details about the Individualized Major, including curriculum requirements, selection of mentors, proposal outline, mentor form and other aspects related to the program, are available from the dean of the College of Arts and Sciences.

*See Dr. Dunn for necessary forms and a more detailed proposal outline.

# Latin American Studies and Women's Studies (LA/W/S)

## Latin American Studies

### *Associate Faculty*

Susan Méndez, Ph.D., *Director of Latin American Studies*

Michael Allison, Ph.D.

Aiala Levy, Ph.D.

Kevin Nordberg Ph.D

Yamile Silva, Ph.D.

Janice Voltzow, Ph.D.

## Women's and Gender Studies

### *Associate Faculty*

Marzia Caporale, Ph.D., *Director of Women's and Gender Studies*

Paul A. Datti, Ph.D.

Marian Farrell, Ph.D.

Michael Friedman, Ph.D.

Jean Harris, Ph.D.

Aiala Levy, Ph.D.

Susan Méndez, Ph.D.

Kimberly Pavlick, Ph.D.

Virginia Picchietti, Ph.D.

Susan Poulson, Ph.D.

Meghan Rich, Ph.D.

Yamile Silva, Ph.D.

Carole Slotterback, Ph.D.

Stephen Whittaker, Ph.D.

Loreen Wolfer, Ph.D.

Habib Zanzana, Ph.D.

## *Affiliated Faculty*

Josephine Dunn, Ph.D

Billie Tadros, Ph.D.

Gretchen Van Dyke, Ph.D.

## Overview

The Department of Latin American Studies and Women's Studies houses the two largest interdisciplinary programs at The University of Scranton. While each program functions autonomously, both share a common administrative structure and a commitment to providing extra- and co-curricular programming to supplement their curricular offerings, and both are organized around the interdisciplinary and multidisciplinary study of social, political, and cultural issues. The governance structure of the department is intended to foster these goals and to insure our commitment to multiple forms of faculty involvement in the teaching, research, and service activities of the department. The department offers two majors, one in Women's and Gender Studies, and one in Latin American Studies.

The Department currently offers two concentrations, which are the equivalent of multi-disciplinary minors, one in Women's and Gender Studies, and one in Latin American Studies. Most courses in the concentrations are cross-listed with other departments and may be counted towards completion of a concentration as well as other requirements that the course might fulfill (e.g., GE, major, minor, or cognate).

## Course Information

Courses for Women's and Gender Studies and Latin American Studies have many prefixes because most courses are cross-listed with other departments. In addition, we run courses that count for both Women's and Gender Studies and Latin American Studies with the prefix LAWS; courses that count for Women's and Gender Studies with the prefix WOMN and courses that count for Latin American Studies with the prefix LAS.

For a list of Women's and Gender Studies courses visit our Women's and Gender Studies, BA page. For a list of Latin American Studies courses, visit our Latin American Studies, BA page. For course information on all courses offered, visit our Course Descriptions page.

# Latin American Studies, BA

## Latin American Studies

Latin American Studies is a multi-disciplinary program designed to advance students' understanding of Latin America and people of Latin American heritage. It seeks to provide both broad, general knowledge of the Latin American region as a whole and an in-depth knowledge of specific countries, regions, cultures, and communities. Students in the program are encouraged to double-major and/or minor in the wide array of disciplines offered at The University of Scranton and to study abroad in Latin America for at least one semester.

Coursework in History and Political Science provides the foundation for understanding the historical, political, cultural, and economic development of Latin America. These classes provide an introduction of various cultures and civilizations as well as familiarity with those factors that have shaped the experiences of individuals, groups, and countries. Students learn about the social significance of concrete events in the past and the present. These courses enable students to appreciate more fully the specific learning objectives in upper-division courses in these same subject matters as well as specialized topics in the supporting course area.

Examining the role of philosophy and religion within the context of Latin American Studies allows students to appreciate how persons in other cultures have contemplated the human condition and the need for self-transcendence. Instruction in these courses should engender cultural sensitivity to the intellectual traditions, beliefs, and practices of others while enriching students in their quests to answer fundamental questions about themselves.

The natural history of Latin America has had a tremendous influence on the development of the cultures of the people who live there. Biology, anthropology, and geography courses provide students with a robust knowledge of the geological, geographic, biological, and cultural diversity of Latin America, and demonstrate how these dimensions have influenced the ways that humans have adapted to and altered their environment.

Literary works represent cultural, social, and political issues such as the articulation and negotiation of class, racial, and sexual identities. The study of literature enhances an appreciation of the complexity and diversity of the cultures and histories of the different regions of Latin America and Latino/a communities. Analysis of literary texts facilitates the acquisition of language skills and promotes effective written and oral expression.

Supporting courses allow students to acquire a general knowledge of the region by taking classes in a wide range of disciplines or to gain a deeper understanding of Latin America by focusing on one or two particular areas of interest.

## Five Content Areas

### Area 1: History and Political Science (minimum 12 credits)

- HIST 125 - (CH,D) Colonial Latin America, HIST 126 - (CH,D) Modern Latin America, PS 219 - (S,D) Latin American Politics, and one of the following: LAS 295 - (S,D) Mexican Culture and Language or PS 323 - (S,D) Central America or PS 333 - United States-Latin American Relations or other approved course.

### Area 2: Philosophy and Theology/Religious Studies (minimum 3 credits)

- PHIL 242 - (P,D) Latin American Thought

  or

- T/RS 250 - (P,D) Latin American Liberation Theology and Beyond

### Area 3: Biology, Anthropology, and Geography (minimum 3 credits)

- BIOL 204 - (E,D) Environmental Issues in Latin America

### Area 4: Literature (minimum 3 credits)

- ENLT 129 - (CL, D) Literature and Social Justice, ENLT 251 - (CL,D) Borderlands Writing or LIT 205 - (CL,D) Modern Latin-American Literature in Translation or SPAN 320 - (CL) Introduction to Hispanic Literature

### Area 5: Supporting Coursework (9 credits)

- HIST 213 - (CH,D) Gender and Family in Latin America
- HIST 215 - (CH,D) Church and Society in Latin America
- HIST 327 - (CH,D,EPW) Race in Latin America
- HIST 490 - (EPW) Seminar in History*
- LA/WS 395 - (S,D) Women and Development in Latin America
- SPAN 295 - (CF,D,S) Contemporary Mexican Culture and Language**
- SPAN 314 - (EPW,D) Latin-American Culture and Civilization
- SPAN 315 - Spanish for the Health Professions
- SPAN 319 - Business Spanish
- SPAN 331 - (CL,D) Survey of Spanish-American Literature
- SPAN 335 - (D) Service and the Hispanic Community
- SPAN 413 - Topics in Hispanic Prose
- SPAN 422 - Spanish-American Drama
- SPAN 430 - (CL,D) Hispanic Women Writers

** Restricted to Senior History majors or students with a Latin-American Studies concentration or major, and only possible when content of the course is Latin American history.*

*** Taught in conjunction with LAS 295.*

**Please note:** *Students who exceed the minimum credit requirements in areas 1-4 may reduce their requirements in area 5 accordingly. Students who study abroad and take appropriate coursework with an emphasis on Latin America may petition to substitute classes and are encouraged to speak to the director of the program.*

## Cognate

**Cognate for Major in Latin American Studies**

Proficiency in Spanish is essential to a fuller understanding of the cultures, histories, intellectual traditions, and peoples of these countries. With the twin goals of cultural and linguistic fluency, the Department strongly encourages at least a semester of study abroad in an immersion program in Spanish.

Students must satisfy one of the following cognate options:

Students who study Spanish must satisfy one of the following:

1. 12 credits of Spanish if student begins at the 100 level. Options: 101, 102, 211, 212, 295
2. Demonstrate proficiency by earning a grade of "C" or better in 311 or beyond OR by challenge exam

***Please note: Placement in a language class is determined by testing in the University's Language Learning Center.***

## Latin American Studies Curriculum

| | *Department and Number - Descriptive Course Title* | *Fall Cr.* | *Spr. Cr.* |
|---|---|---|---|
| **First Year** | | | |
| MAJOR | HIST 125 - (CH,D) Colonial Latin America - HIST 126 - (CH,D) Modern Latin America | 3 | 3 |
| FREE ELECT | Free Electives | | 3 |
| GE WRTG-SPCH | WRTG 107 - (FYW) Composition - COMM 100 - (FYOC) Public Speaking* | 3 | 3 |
| GE C/IL | C/IL 102/102L - (FYDT) Computing and Information Literacy* | 3 | |
| COGNATE (SPAN) | Cognate (SPAN)** | 3 | 3 |
| GE PHIL-T/RS | PHIL 120 - Introduction to Philosophy - T/RS 121 - Theology I: Introduction to the Bible | 3 | 3 |
| GE FSEM | First Year Seminar[1] | | |
| | | **15** | **15** |
| **Second Year** | | | |
| LAS ELECT | LAS Electives | 3 | |
| COGNATE OR LAS ELECT | Cognate (SPAN) or LAS Electives** | 3 | 3 |

| | | | |
|---|---|---|---|
| HUMN ELECT | HUMN Electives | 3 | 3 |
| GE PHIL-T/RS | PHIL 210 - Ethics - T/RS 122 - Theology II: Introduction to Christian Theology | 3 | 3 |
| MAJOR - QUAN ELECT | PS 219 - (S,D) Latin American Politics – QUAN Electives | 3 | 3 |
| MAJOR | ENLT 129 - (CL, D) Literature and Social Justice, ENLT 251 - (CL,D) Borderlands Writing or LIT 205 - (CL,D) Modern Latin-American Literature in Translation or SPAN 320 - (CL) Introduction to Hispanic Literature | | 3 |
| | | **15** | **15** |
| **Third Year** | | | |
| MAJOR | LAS 295 - (S,D) Mexican Culture and Language or PS 323 - (S,D) Central America or PS 333 - United States-Latin American Relations or another approved course | | 3 |
| MAJOR | T/RS 250 - (P,D) Latin American Liberation Theology and Beyond or PHIL 242 - (P,D) Latin American Thought | | 3 |
| LAS ELECT | LAS Electives | 3 | |
| MAJOR | BIOL 204 - (E,D) Environmental Issues in Latin America | 3 | |
| FREE ELECT | Free Electives | 12 | 12 |
| | | **18** | **18** |
| **Fourth Year** | | | |
| NSCI ELECT | NSCI Electives | 3 | |
| LAS ELECT | LAS Electives | | 3 |
| FREE ELECT | Free Electives | 12 | 12 |
| | | **15** | **15** |
| | | | **Total: 126 Credits** |

[1] *The selection of a First Year Seminar is likely to fulfill requirements both for the First Year Seminar and a General Education Requirement. Thus, the First Year seminar will not add to the total credits for the semester. Talk with your advisor if you have any questions.*

**An approved 3-credit EP Foundation Course may be substituted for COMM 100 and C/IL 102/102L-C/IL 104. In this case, the total needed for graduation in this major may be reduced to 123 credits. Consult with your advisor if you have questions.*

***Starting at SPAN 100 level, SPAN 311 or beyond, or taking and successfully passing the language challenge exam will affect the credits listed in these semesters.*

## Latin American Studies Concentration

Yamile Silva, Ph.D., *Director*

The Latin American Studies Concentration is offered by the Department of Latin American Studies and Women's Studies (LA/W/S).

The Latin American Studies Concentration is designed to advance students' awareness and understanding of Latin America and people of Latin American heritage. It seeks to provide both broad, general knowledge of the entire Latin American region, and in-depth knowledge of specific countries, regional groupings of countries, cultures, and communities. The concentration is open to all majors and it consists of courses from a variety of disciplines with a primary focus on Latin America. These courses fulfill general education requirements in the Humanities area (Foreign Languages, History, and Literature), the Social Sciences area (Political Science), Philosophy/Theology, and some of them also carry cultural diversity and writing intensive designations. Supporting courses may fulfill general education requirements in other areas as well. Core and supporting courses are listed below.

The Latin American Studies Concentration is an attractive complement to many existing majors. Related fields include world languages, international business, international language/business, international studies, history, political science, theology, philosophy and sociology. Some related professions or careers include law, government, non-governmental organizations, non-profit organizations, banking and teaching.

For more information about the Latin American Studies and Women's Studies (LA/W/S) department, visit its website.

## Language Requirements

Demonstrate familiarity by earning a grade of "C" or better in SPAN 212 or beyond or by challenge exam.

### Complete at least four but up to six of the following courses: (12-18 credits)

- BIOL 204 - (E,D) Environmental Issues in Latin America
- ENLT 129 - (CL, D) Literature and Social Justice
- ENLT 251 - (CL,D) Borderlands Writing
- HIST 125 - (CH,D) Colonial Latin America
- HIST 126 - (CH,D) Modern Latin America
- HIST 213 - (CH,D) Gender and Family in Latin America
- HIST 215 - (CH,D) Church and Society in Latin America
- HIST 327 - (CH,D,EPW) Race in Latin America
- HIST 490 - (EPW) Seminar in History [1]
- LA/WS 395 - (S,D) Women and Development in Latin America
- LAS 295 - (S,D) Mexican Culture and Language [2]
- LIT 205 - (CL,D) Modern Latin-American Literature in Translation
- PHIL 242 - (P,D) Latin American Thought
- PS 219 - (S,D) Latin American Politics
- PS 323 - (S,D) Central America
- PS 333 - United States-Latin American Relations
- T/RS 250 - (P,D) Latin American Liberation Theology and Beyond

### Supporting Spanish Language Courses

Spanish proficiency beyond SPAN 212 is not required but students can apply two courses (6 credits) towards the concentration from the following Spanish language offerings, if completing only four courses (12 credits) from the above category.

- SPAN 311 - (CF,D) Spanish Conversation
- SPAN 312 - (EPW,CF) Spanish Composition
- SPAN 314 - (EPW,D) Latin-American Culture and Civilization
- SPAN 315 - Spanish for the Health Professions

- SPAN 319 - Business Spanish
- SPAN 320 - (CL) Introduction to Hispanic Literature
- SPAN 331 - (CL,D) Survey of Spanish-American Literature
- SPAN 335 - (D) Service and the Hispanic Community
- SPAN 413 - Topics in Hispanic Prose [3]
- SPAN 422 - Spanish-American Drama
- SPAN 430 - (CL,D) Hispanic Women Writers

## Additional Information

*[1]Restricted to senior History majors or students with a Latin-American Studies concentration or major, when course content is specific to Latin America.*

*[2]A three-credit intersession travel course to Mexico. Credit load and tuition are applied to Spring Semester.*

*[3]May be used as a supporting course when course content is specific to Latin America.*

*Students who study abroad or take other appropriate classes with an emphasis on Latin America may petition to substitute classes and are encouraged to speak with the director of the program

# Women's and Gender Studies, BA

The Women's and Gender Studies Major provides an integrated, interdisciplinary approach to understanding the social and cultural constructions of gender that shape the experiences of women and men in society. The curriculum offers a solid foundation in Women's and Gender Studies, facilitating graduate study and careers involving gender justice and preparing students for leadership roles in diverse workplaces and communities.

Through our partnership with the Jane Kopas Women's Center and other community-based organizations and agencies, the Women's and Gender Studies program offers students the opportunity to integrate theory and practice to develop leadership skills. The department works to create a learning community for students enrolled in its programs that integrates curricular and extra-curricular programming and encourages life-long learning and civic engagement.

While the degree offers students direct career paths to work in the non-profit, government, and private sectors for organizations that focus on issues of gender justice, the degree also aims to prepare students for a life of civic engagement and commitment to justice. Furthermore, the degree prepares students for graduate study in law, counseling, social work, and any field in the humanities or social sciences. Pre-medicine and allied health field students as well as business students find Women's and Gender Studies to be helpful in preparing them to understand both their clients and their own lives as professionals.

As an inter- and multi-disciplinary field of study, Women's and Gender Studies courses are drawn from departments across the University. All courses available for Women's and Gender Studies credit have been reviewed and approved by the Women's and Gender Studies Program Steering Committee. Women's and Gender Studies courses focus on critiquing and understanding human experiences in relationship to gender and the evolution of gender in specific historical, social, and cultural contexts.; examining the complexity of power structures and modes of authority, especially as they pertain to structural and institutional modes of power and oppression; and developing an intersectional understanding of the methods women and the marginalized have employed to achieve self-expression, voice, and visibility and to exercise agency.

For more information about the Latin American Studies and Women's Studies (LA/W/S) department, visit its website

## Major Requirements

A minimum of 10 courses (30 credits), distributed as follows, is required for the Women's and Gender Studies major:

1. **Foundational/Praxis courses (6 credits minimum)**

   These courses provide the foundation of Women's and Gender Studies by introducing students to the complexity of feminisms, in both theory and practice, and discussing the relationship between the two. Students must take one course from group A AND one course from group B.

A. PHIL 218 - (P,D) Feminism: Theory and Practice

B. WOMN 215 - (D) Feminism and Social Change/SOC 315 - (D) Feminism and Social Change OR SOC 220 - (S,D) Social Stratification

## 2. At least 1 course (3 credits) must be taken in each of the three areas listed below (9 credits minimum)

A. **Area A: Historical Knowledges (material, cultural, social)**

After completing courses in Area A, students will be able to: demonstrate that they recognize the intersections between gender and other social and cultural identities, including, but not limited to, race, ethnicity, national origin, religion, class, and sexuality; comprehend the impact of gender and women's experiences on individuals' historical and contemporary agency, and how the ability to express agency has shaped people's lives in geographical settings; demonstrate knowledge of the history of women's studies as an academic discipline, with an understanding of its growth and relation to the fields of gender and sexuality studies; articulate a critical appreciation of the richness and diversity of gender expressions and feminisms; articulate theoretical perspectives relevant to feminist theories; and explain relationships between feminist theory and practice.

B. **Area B: Social and Behavioral Sciences:**

Courses in the social and behavioral sciences will provide students with: an understanding of cross-cultural studies of gender; an understanding of intersectionality between gender and other modes of oppression; the ability to determine how various types of research tools and social/behavioral science research methods are used to study the human experience and gender; the skills and knowledge to perform an institutional, structural, and behavioral analysis of gender and/or women's lives; a critical appreciation for theoretical perspectives relevant to feminist theories; and the ability to explain relationships between feminist theory and practice.

C. **Area C: Representations and Expressions (creative, literary, and visual arts)**

After completing courses Area C, students will be able to: demonstrate through analysis and/or practice their understandings of ways in which artistic works (i.e. literature, music, and the visual arts) expose the reality of gender-based human experiences; demonstrate through analysis and/or practice their understandings of ways in which artistic works have been created to express gender-based social and/or political views, issues of sexuality and the relationship between the personal and the political; articulate theoretical perspectives relevant to feminist theories; and demonstrate through analysis and/or practice the relationship between feminist theory and practices.

## 3. Electives (15 credits)

All Women's & Gender Studies (WGS) designated courses including additional area and praxis courses beyond those required count as electives. Students must complete 5 WGS elective courses. Students wishing to specialize or concentrate in a particular area (e.g., humanities or social/behavioral sciences) may focus the remainder of their WGS courses in a given area or discipline. Students are strongly encouraged to complete a community-based internship related to their work in Women's and Gender Studies and/or volunteer or work at the Jane Kopas Women's Center (JKWC).

A minimum of 10 courses (30 credits), distributed as follows, is required for the Women's and Gender Studies major:

## 4. Theory intensive courses

Of the 10 courses necessary for completion of the major, students must take at least one theory intensive course beyond the foundational/praxis courses. Any approved area or elective Women's and Gender Studies course may be flagged as theory-intensive, if it fits the WGS criteria and has been approved for such designation by the Women's and Gender Studies Program Steering Committee

# List of Women's and Gender Studies (WS) designated courses

| Course Number - Name and GE Designation | Foundational A or B | Area A | Area B | Area C | Theory Intensive | Elective |
|---|---|---|---|---|---|---|
| ARTH 210 - (CA,D) Women in the Visual Arts | | | | X | | X |
| ARTH 311 - (D,CA) Medieval and Renaissance Women | | | | X | | X |

| | | | | | | |
|---|---|---|---|---|---|---|
| CHS 337 - (D) Counseling Girls and Women | | | X | | | X |
| CHS 375 - Counseling Lesbian, Gay, Bisexual, Transgender, and Questioning Persons | | | X | | | X |
| COMM 229 - (D) Gender and Communication | | | X | | | X |
| 1st Yr. Seminar: ENLT 135X - (FYS,CL,D) Feminism and Jesuit Education | X | | | | | X |
| ENLT 225 - (CL,D) Writing Women | | | | X | | X |
| ENLT 251 - (CL,D) Borderlands Writing | | | | X | | X |
| ENLT 260 - (CL,D, EPW,W) Women of Color: Literature & Theory | | | | X | X | X |
| FREN 430 - Women Writers of the Francophone World | | | | X | | X |
| HIST 213 - (CH,D) Gender and Family in Latin America | | X | | | | X |
| HIST 238 - (CH,D) History of American Women: From Colonization to Mid-Nineteenth Century | | X | | | | X |
| HIST 239 - (CH,D) History of American Women: From Mid-Nineteenth Century to the Present | | X | | | | X |
| LA/WS 395 - (S,D) Women and Development in Latin America | | | X | | X | X |
| LIT 207 - (CL,D,EPW) Literature of Global Minorities | | | | X | | X |
| LIT 221E/221F - (EPW,CL,D) Italian Women's Writing | | | | X | X | X |
| LIT 323E/323F - (EPW,D) Topics in French and Francophone Cinema | | | | X | | X |
| LIT 325E/325F - Gender in Italian Cinema | | | | X | | X |
| NURS 111 - (D) Women's Health | | | | | | X |
| PHIL 218 - (P,D) Feminism: Theory and Practice | A | | | | | X |
| PHIL 232 - (P,D) Women in Chinese and Western Philosophies | | | | | | |
| PS 216 - (D,S) Women's Rights and Status | | | X | | | X |
| PS 227 - (D,S) Women, Authority and Power | | | X | | | X |
| PS 335 - (D) Women in the Global Community | | | X | | | X |

| | | | | | | |
|---|---|---|---|---|---|---|
| PSYC 228 - Health Psychology | | | X | | | X |
| PSYC 237 - (D,S) Psychology of Women | | | X | | | X |
| SOC 210 - (EPW,D) Marriage and the Family | | | X | | | X |
| SOC 220 - (S,D) Social Stratification | B | | X | | | X |
| SOC 222 - (S,D) Gender in Society | B | | X | | | X |
| SOC 224 - (S,D) Race and Ethnic Relations | | | X | | | X |
| SOC 230 - Sociology of Globalization | | | X | | | X |
| SOC 315/ WOMN 215 - (D) Feminism and Social Change | B | | X | | | X |
| SOC 317 - (EPW,D) Family Issues and Social Policy | | | X | | | X |
| SPAN 430 - (CL,D) Hispanic Women Writers | | | | X | | X |
| WOMN 215/ SOC 315 - (D) Feminism and Social Change | B | | X | | | X |
| WOMN 380-381 - Women's and Gender Studies Internships | | | | | | X |
| WOMN 383 – Independent Study | | | | | | X |
| WOMN 384- Independent Study | | | | | | X |

Some of the listed courses have prerequisites: please consult departmental descriptions.

## Women's and Gender Studies Curriculum

| | ***Department and Number - Description Title of Course*** | ***Fall Cr.*** | ***Spr. Cr.*** |
|---|---|---|---|
| **First Year** | | | |
| MAJOR | WOMN 215 - (D) Feminism and Social Change/SOC 315 - (D) Feminism and Social Change or SOC 220 - (S,D) Social Stratification — WOMN ELECT - WOMN Elective | 3 | 3 |
| FREE ELECT | FREE ELECT - Free Elective | | 3 |
| GE WRTG/SPCH | WRTG 107 - (FYW) Composition – COMM 100 - (FYOC) Public Speaking* | 3 | 3 |
| GE C/IL | C/IL 102/102L - (FYDT) Computing and Information Literacy* | 3 | |
| GE HUMN/GE S/BH | GE HUMN - Humanities (CF/CH/CI/CL/CA) Elective — GE S/BH - Social & Behavioral Science (S) Elective | 3 | 3 |

| | | | |
|---|---|---|---|
| GE PHIL-T/RS | PHIL 120 - Introduction to Philosophy – PHIL 210 - Ethics | 3 | 3 |
| GE FSEM | First Year Seminar[1] | | |
| | | **15** | **15** |
| **Second Year** | | | |
| MAJOR | PHIL 218 - (P,D) Feminism: Theory and Practice or PHIL 231 - (P,D) Philosophy of Women | 3 | |
| GE NSCI | NSCI ELECT - NSCI Elective | | 3 |
| MAJOR | WGS Area A: Historical Knowledge Elective — WGS Area B: Social & Behavioral Sciences Elective | 3 | 3 |
| GE HUMN-S/BH | GE HUMN - Humanities (CF/CH/CI/CL/CA) Elective — GE S/BH ELECT - Social & Behavioral Sciences Elective (S) | 3 | 3 |
| GE PHIL -T/RS | T/RS 121 - Theology I: Introduction to the Bible – T/RS 122 - Theology II: Introduction to Christian Theology | 3 | 3 |
| GE QUAN – HUMN | GE QUAN - Quantitative Elective — GE HUMN - Humanities (CF/CH/CI/CL/CA) Elective | 3 | 3 |
| | | **15** | **15** |
| **Third Year** | | | |
| MAJOR | WGS AREA C : Representative & Expression Elective— WGS ELECT - WGS Theory Intensive Elective | 3 | 3 |
| MAJOR | WGS ELECT - WGS Elective — WGS ELECT - WGS Theory Intensive Elective | 3 | 3 |
| GE NSCI - GE PHIL/RS | GE NSCI ELECT - NSCI (E) Elective — GE PHIL/RS ELECT - Philosophy-Theology/Religious Studies (P) Elective | 3 | 3 |
| GE ELECT | FREE ELECT - Free Electives | 9 | 6 |
| | | **18** | **15** |
| **Fourth Year** | | | |
| MAJOR | WGS ELECT - WGS WOMN Elective | 3 | |
| GE HUMN | GE HUMN - Humanities (CF/CI/CH/CL/CA) Elective | 3 | |
| GE ELECT | FREE ELECT - Free Electives | 9 | 15 |
| | | **15** | **15** |
| | | | **Total: 123 Credits** |

[1]*The selection of a First Year Seminar is likely to fulfill requirements both for the First Year Seminar and a General Education Requirement. Thus, the First Year Seminar will not add to the total credits for the semester. Talk with your advisor if you have any questions.*

**An approved 3-credit EP Foundation Course may be substituted for COMM 100 and C/IL 102/102L-C/IL 104. In this case, the total needed for graduation in this major may be reduced. Consult with your advisor if you have questions*

## Women's and Gender Studies Concentration

Marzia Caporale, Ph.D., *Director*

Courses for the Women's and Gender Studies Concentration are drawn from departments across the University and are open to students in all majors. (To enroll in the concentration, students must see the Director of Women's and Gender Studies.) The concentration consists of six courses including one required foundational course from a list of four: PHIL 218 - (P,D) Feminism: Theory and Practice, WOMN 215 - (D) Feminism and Social Change/SOC 315 - (D) Feminism and Social Change, OR SOC 220 - (S,D) Social Stratification.

Students are strongly encouraged to take two foundational courses, one in the social sciences and one in philosophy. Additional foundational courses beyond the required one will count as electives for the concentration. Many of the cross-listed Women's and Gender Studies courses fulfill major, minor, cognate, and/or general education requirements. Students also are encouraged to do extracurricular activities that will enrich their classroom experience.

Students may, with the approval of the Women's and Gender Studies Program Steering Committee, substitute honors tutorials or a thesis, study abroad courses, one reader, or a non-cross-listed course for a Women's and Gender Studies course elective in cases where major graded requirements are completed in ways that meet the course criteria for Women's and Gender Studies. Students seeking such substitutions should seek advice from the Director of Women's and Gender Studies, preferably before completing the credits they wish to substitute.

**See the list of Women's and Gender Studies (WS) designated courses listed under Women's and Gender Studies, BA.**

# Liberal Studies, (CAS)

The Liberal Studies major is a highly individualized program offered under the auspices of the College of Arts and Sciences and the Panuska College of Professional Studies. Applicants who have attended other accredited colleges may transfer up to 60 credits for applicable courses in which a grade of C or better has been earned. Students who qualify for this interdisciplinary degree program are eligible to earn as many as 30 semester hours for academically relevant experience.

In the College of Arts and Sciences, a student may enroll in the Liberal Studies major only with permission of the Dean.

### Notes:

- All Liberal Studies students must take two courses designated as writing intensive (W) and two courses designated as cultural-diversity (D).
- In compliance with terms set by AACSB accreditation, no more than 30 credits of the concentration may be courses in the Kania School of Management.
- The only Physical Education courses that may be counted towards the Liberal Studies degree are those that are 3 or more credits.
- No minors are granted with the Liberal Studies program.
- No transcripted interdisciplinary programs are accepted as Liberal Studies concentrations

# Mathematics

## Faculty

Thomas A. Shimkus, Ph.D., *Chair*

Maureen T. Carroll, Ph.D.

Steven T. Dougherty, Ph.D.

Anthony P. Ferzola, Ph.D.

Jason Graham, Ph.D.

Jakub S. Jasinski, Ph.D.

Joseph Klobusicky, Ph.D.

John J. Levko, S.J., Ph.D.

Kenneth G. Monks, Ph.D.

Jerry R. Muir Jr., Ph.D.

Stacey Muir, Ph.D.

Masood Otarod, Sc.D.

Krzysztof Plotka, Ph.D.

Jennifer F. Vasquez, Ph.D.

Zhongcheng Xiong, Ph.D.

Murong Xu, Ph.D.

## Overview

The mathematics department offers a B.S. in Mathematics, and B.A. in Mathematics, a B.S. in Mathematical Sciences with tracks in Actuarial Science, Biological Sciences, Computer & Information Science, Data Science, and Physical Sciences, a BS in Applied Mathematics, and a B.S. in Biomathematics. These programs share a number of courses in the first and second year adding flexibility to deciding which path to pursue. Additionally, the department offers minors in Actuarial Science and Mathematics.

The Mathematics B.S. and B.A. programs provide students with both breadth and depth in the discipline of mathematics. Mathematics students have great flexibility: many continue with advanced study in mathematics while others pursue a career in education, or any one of a variety of other fields.

Fully taking advantage of the many excellent programs in the STEM and business fields at The University of Scranton, the Mathematical Sciences, BS. program provides students with the opportunity to attain a mathematics degree that focuses on the interconnectedness of mathematics and a partner discipline.

The Applied Mathematics, BS. trains students in those areas of mathematics that are foundational in solving problems in business and industry. Students of applied mathematics often pursue a career or advanced study in fields from science, engineering, economics, or finance.

The Biomathematics, BS emphasizes the mathematical and scientific concepts necessary for quantitative approaches to the study of biology and medicine. With two distinct tracks, a pre-health track and a research track, Biomathematics graduates are well-prepared to pursue a variety of career opportunities in medicine, the health sciences, or basic scientific research.

For information on the CAS/MBA Five-Year Program, visit our CAS/MBA Five-Year Program page.

## Affiliated Programs

The Data Science Concentration is affiliated with the Mathematics Department.

## Course Information

Courses for **Mathematics** are listed under the prefix MATH. For information on all courses offered, visit the Course Descriptions page.

# Applied Mathematics, BS

## Applied Mathematics Curriculum

| | *Department and Number - Descriptive Title of Course* | *Fall Cr.* | *Spr. Cr.* |
|---|---|---|---|
| **First Year** | | | |
| MAJOR | MATH 114 - (Q) Calculus I — MATH 221 - Calculus II | 4 | 4 |
| COGNATE | CMPS 134 - Computer Science I/CMPS 134L — CMPS 144 Computer Science II/CMPS 144L | 4 | 4 |
| GE PHIL–T/RS | PHIL 120 - Introduction to Philosophy — T/RS 121 - (P) Theology I: Introduction to the Bible | 3 | 3 |
| GE WRTG | WRTG 107 - (FYW) Composition | 3 | |
| GE HUMN | HUMN ELECT - Humanities Electives | 3 | 3 |
| GE FSEM | First Year Seminar[1] | | |
| EP FYDT-FYOC | Level I Digital Technology (FYDT)-Level I Oral Communication (FYOC) | | 3 |
| | | **17** | **17** |
| Second Year | | | |
| MAJOR | MATH 222 - Calculus III — MATH 341 - Differential Equations | 4 | 4 |
| MAJOR | MATH 351 - Linear Algebra — MATH 371 - Applied Combinatorics | 3 | 3 |
| COGNATE | COGNATE ELECT - Cognate Electives[2] | 3-4.5 | 3-4.5 |
| GE S/BH | S/BH ELECT - Social/Behavioral Electives | 3 | 3 |
| GE PHIL–T/RS | PHIL 210 - Ethics — T/RS 122 - (P) Theology II: Introduction to Christian Theology | 3 | 3 |
| | | **16-17.5** | **16-17.5** |
| **Third Year** | | | |
| MAJOR | MATH ELECT - Mathematics Elective[3] — MATH 310 - Applied Probability and Mathematical Statistics | 3 | 4 |
| MAJOR | MATH 361 - Numerical Analysis — MATH ELECT - Mathematics Electives[3] | 3 | 3 |
| COGNATE | COGNATE ELECT - Cognate Electives[2] | 3-4.5 | |
| GE HUMN | HUMN ELECT - Humanities Electives | 3 | 3 |
| EPW | EPW ELECT - EP Level II Writing Electives[4] | 3 | 3 |
| GE PHIL or T/RS | PHIL ELECT - Philosophy Elective or T/RS ELECT - T/RS Elective | | 3 |

| | | | |
|---|---|---|---|
| | | **15-16.5** | **16** |
| **Fourth Year** | | | |
| MAJOR | MATH ELECT - Mathematics Electives[3] | 6 | 3 |
| GE ELECT | FREE ELECT - Free Electives[5] | 6 | 9 |
| | | **12** | **12** |
| | | | **TOTAL: 121-125.5 Credits** |

[1]The selection of a First Year Seminar is likely to fulfill requirements both for the First Year Seminar and a General Education requirement. Thus, the First Year Seminar will not add to the total credits for the semester.

[2]Three cognate electives, thus five cognate courses overall. Students must complete a two course sequence and a three course sequence. Exactly one sequence must be from Computing Science. The other sequence can come from Biology, Chemistry, Physics, Economics, or Finance. All cognate electives must count toward the major of the relevant department. All related labs also are required.

[3]Five Math electives overall, selected from Math courses numbered MATH 299 or higher. A student must choose at least one from MATH 320, MATH 360, MATH 368, MATH 410, or MATH 441.

[4]These EPW electives might also satisfy other curricular requirement(s). When an EPW elective satisfies other curricular requirement(s), an additional free elective will be required.

[5]If a student chooses a cognate sequence in Economics or Finance, then two electives must be used to satisfy the General Education Natural Science requirement.

Applied Mathematics majors are required to take the Applied Mathematics Exit Exam in order to graduate.

# Biomathematics, BS

The Biomathematics major leads to employment or graduate study ranging from biostatistics through public health to medicine. Students interested in medical school should take General and Analytical Chemistry in the first year, Organic Chemistry in the second year, and General Biochemistry in the third year.

## Biomathematics Pre-Health Track Curriculum

| | ***Department and Number - Descriptive Title of Course*** | ***Fall Cr.*** | ***Spr. Cr.*** |
|---|---|---|---|
| **First Year** | | | |
| MAJOR | MATH 114 - (Q) Calculus I – MATH 221 - Calculus II | 4 | 4 |
| MAJOR | BIOL 141 - (E) (FYOC, FYDT Lab only) General Biology – BIOL 142 - (E) (FYOC, FYDT Lab only) General Biology | 4.5 | 4.5 |
| COGNATE | CHEM 112-113 - (E) General and Analytical Chemistry/CHEM 112L-113L | 4.5 | 4.5 |
| GE WRTG | WRTG 107 - (FYW) Composition | 3 | |
| GE PHIL | PHIL 120 - Introduction to Philosophy | | 3 |
| GE FSEM | First Year Seminar[2] | | |
| | | **16** | **16** |

| | | | |
|---|---|---|---|
| **Second Year** | | | |
| MAJOR | MATH 222 - Calculus III – MATH 341 - Differential Equations | 4 | 4 |
| MAJOR | BIOL ELECT - Biology Electives[1] | 5 | 3 |
| COGNATE | CHEM 232 - (E) Organic Chemistry/CHEM 232L – CHEM 233 - (E) Organic Chemistry/CHEM 233L | 4.5 | 4.5 |
| GE T/RS | T/RS 121 - (P) Theology I: Introduction to the Bible – T/RS 122 - (P) Theology II: Introduction to Christian Theology | 3 | 3 |
| GE PHIL | PHIL 210 - Ethics | | 3 |
| | | **16.5** | **17.5** |
| **Third Year** | | | |
| MAJOR | MATH 351 - Linear Algebra — MATH 310 - Applied Probability and Mathematical Statistics | 3 | 4 |
| COGNATE | CHEM 350 - General Biochemistry I[3] | 3 | |
| COGNATE | PHYS 140/PHYS 140L - (E) Elements of Physics I – PHYS 141/PHYS 141L - (E) Elements of Physics II | 4 | 4 |
| GE HUMN | HUMN ELECT – Humanities Electives | 6 | 3 |
| GE ELECT | S/BH ELECT - Social/Behavioral Elective | | 3 |
| | | **16** | **14** |
| **Fourth Year** | | | |
| MAJOR | BIOL ELECT – Biology Elective[1] | | 4-5 |
| MAJOR | MATH 463 - (EPW) Topics in Biomathematics | | 3 |
| GE ELECT | FREE ELECT - Free Elective | | 3 |
| EPW | EPW ELECT - EP Level II Writing Electives[4] | 3 | 3 |
| GE HUMN | HUMN ELECT – Humanities Elective | 3 | |
| GE S/BH | S/BH ELECT – Social/Behavioral Elective | 3 | |
| GE PHIL or T/RS | PHIL ELECT - Philosophy Elective or T/RS ELECT - T/RS Elective | 3 | |
| | | **12** | **13-15** |
| | | | **Total: 120-122 Credits** |

[1]The three biology electives must be Biology Major Electives with at least two of them being from exactly one of three content areas: Molecular & Cellular (MC), Systems (S) and Multi-Organismal (MO). The courses in these three content areas are listed on the catalog page for the Biology, BS.

[2]The selection of a First Year Seminar is likely to fulfill requirements both for the First Year Seminar and a General Education Requirement. Thus, the First Year Seminar will not add to the total credits for the semester. Talk with your advisor if you have any questions.

[3]The lab is optional. Additionally, CHEM 450 - Biochemistry I may be substituted for CHEM 350 - General Biochemistry I

[4]These EPW electives might also satisfy other curricular requirement(s). When an EPW elective satisfies other curricular requirement(s), an additional free elective will be required.

## Biomathematics Research Track Curriculum

| | *Department and Number - Descriptive Title of Course* | *Fall Cr.* | *Spr. Cr.* |
|---|---|---|---|
| **First Year** | | | |
| MAJOR | MATH 114 - (Q) Calculus I – MATH 221 - Calculus II | 4 | 4 |
| MAJOR | BIOL 141 - (E) (FYOC, FYDT Lab only) General Biology – BIOL 142 - (E) (FYOC, FYDT Lab only) General Biology | 4.5 | 4.5 |
| GE HUMN | HUMN ELECT - Humanities Electives | 3 | 3 |
| GE WRTG | WRTG 107 - (FYW) Composition | 3 | |
| GE PHIL | PHIL 120 - Introduction to Philosophy | | 3 |
| GE FSEM | First Year Seminar[2] | | |
| | | **14.5** | **14.5** |
| **Second Year** | | | |
| MAJOR | MATH 222 - Calculus III – MATH 341 - Differential Equations | 4 | 4 |
| MAJOR | BIOL ELECT - Biology Electives[1]– MATH 351 - Linear Algebra | 5 | 3 |
| COGNATE | CHEM 112-113 - (E) General and Analytical Chemistry/CHEM 112L-113L | 4.5 | 4.5 |
| GE T/RS | T/RS 121 - (P) Theology I: Introduction to the Bible – T/RS 122 - (P) Theology II: Introduction to Christian Theology | 3 | 3 |
| GE PHIL | PHIL 210 - Ethics | | 3 |
| | | **16.5** | **17.5** |
| **Third Year** | | | |
| MAJOR | MATH 371 - Applied Combinatorics | | 3 |
| MAJOR | MATH 441 - Partial Differential Equations or MATH 463 - (EPW) Topics in Biomathematics[3] | | 3 |
| COGNATE | CHEM 232 - (E) Organic Chemistry/CHEM 232L – CHEM 233 - (E) Organic Chemistry/CHEM 233L | 4.5 | 4.5 |
| COGNATE | PHYS 140/PHYS 140L - (E) Elements of Physics I – PHYS 141/PHYS 141L - (E) Elements of Physics II | 4 | 4 |

| | | | |
|---|---|---|---|
| EPW | EPW ELECT - EP Level II Writing Electives[4] | 3 | 3 |
| GE ELECT | FREE ELECT - Free Elective | 3 | |
| | | **14.5** | **17.5** |
| **Fourth Year** | | | |
| MAJOR | BIOL ELECT - Biology Elective — MATH 310 - Applied Probability and Mathematical Statistics | 3-5 | 4 |
| MAJOR | MATH 441 - Partial Differential Equations or MATH 463 - (EPW) Topics in Biomathematics[3] | | 3 |
| GE HUMN | HUMN ELECT – Humanities Electives | 3 | 3 |
| GE S/BH | S/BH ELECT – Social/Behavioral Electives | 3 | 3 |
| GE PHIL or T/RS | PHIL ELECT - Philosophy or T/RS ELECT– T/RS Elective | 3 | |
| | | **12-14** | **13** |
| | | | **Total: 120-122 Credits** |

[1]The two biology electives must be from exactly one of three content areas: Molecular & Cellular (MC), Systems (S) and Multi-Organismal (MO). The courses in these three content areas are listed on the catalog page for the Biology, BS.

[2]The selection of a First Year Seminar is likely to fulfill requirements both for the First Year Seminar and a General Education Requirement. Thus, the First Year Seminar will not add to the total credits for the semester. Talk with your advisor if you have any questions.

[3]Since MATH 441 runs in the spring semester of odd-numbered years, students whose third year spring semester will be in an even-numbered year should plan to take MATH 463 in their third year spring semester and MATH 441 in their fourth year spring semester.

[4]These EPW electives might also satisfy other curricular requirements(s). When an EPW elective satisfies other curricular requirement(s), an additional free elective will be required.

# Mathematical Sciences, BS

A Mathematical Sciences B.S. student will choose from the following tracks: Actuarial Science, Biological Sciences, Computer & Information Science, Data Science, and Physical Sciences. All students take core courses in calculus and linear algebra, and then, depending on the chosen track, an array of upper-division mathematics courses and cognate courses from the partner discipline. Elective courses in mathematics, the partner discipline, and from the sciences at large are required and can be chosen in a manner that helps the student lay the groundwork for future graduate study, careers, or to take electives recommended for pre-med or pre-health professions students and is flexible enough to facilitate a double major with a program in the chosen partner discipline.

## Actuarial Science Track Curriculum

| | ***Department Number - Descriptive Title of Course*** | ***Fall Cr.*** | ***Spr. Cr.*** |
|---|---|---|---|
| **First Year** | | | |
| MAJOR | MATH 114 - (Q) Calculus I — MATH 221 - Calculus II | 4 | 4 |
| COGNATE | ECO 153 - (S) Principles of Microeconomics — ECO 154 - (S) Principles of Macroeconomics | 3 | 3 |
| GE EPI | EPI ELECT - (FYOC-FYDT) Elective — WRTG 107 - (FYW) Composition | 3 | 3 |

| | | | |
|---|---|---|---|
| GE PHIL - GE T/RS | PHIL 120 - Introduction to Philosophy — T/RS 121 - (P) Theology I: Introduction to the Bible | 3 | 3 |
| GE HUMN ELECT | HUMN ELECT - Humanities Electives[b] | 3 | 3 |
| GE FSEM | First Year Seminar[1] | | |
| | | **16** | **16** |
| **Second Year** | | | |
| MAJOR | MATH 222 - Calculus III — MATH 351 - Linear Algebra | 4 | 3 |
| COGNATE | ACC 251 - Financial Accounting I OR ACC 253 - Financial Accounting — ACC 252 - Financial Accounting II OR ACC 254 - Managerial Accounting | 3 | 3 |
| COGNATE | DS 201 - (Q) Introduction to Data Science | 3 | |
| GE HUMN ELECT | HUMN ELECT - Humanities Elective[b] | | 3 |
| GE S/BH ELECT | S/BH ELECT - Social/Behavioral Electives[b] | 3 | 3 |
| GE PHIL- GE T/RS | PHIL 210 - Ethics — T/RS 122 - (P) Theology II: Introduction to Christian Theology | 3 | 3 |
| | | **16** | **15** |
| **Third Year** | | | |
| MAJOR | MATH 312 - Probability — MATH 314 - Mathematical Statistics | 3 | 3 |
| MAJOR | MATH 361 - Numerical Analysis — MATH 330 - Actuarial Mathematics | 3 | 3 |
| COGNATE | FIN 251 - Introduction to Finance — DS 210 - Mathematical Methods for Data Science | 3 | 3 |
| COGNATE ELECT | COGNATE ELECT - Cognate Electives[2,b] | 3 | 3 |
| GE ELECT | FREE ELECT - Free Electives[a,b] | 3 | 3 |
| | | **15** | **15** |
| **Fourth Year** | | | |
| MAJOR | MAJOR ELECT - Major Electives[3,b] | 3 | 3 |
| COGNATE | FIN 362 - Investments OR FIN 363 - Intermediate Finance | 3 | |
| STEM ELECT | STEM ELECT - STEM Electives[4,a,b] | 3 | 3 |
| GE HUMN | HUMN ELECT - Humanities Elective[b] | 3 | |
| GE PHIL - GE T/RS | PHIL ELECT - Philosophy Elective - T/RS ELECT - Theology Elective[b] | | 3 |
| GE ELECT | FREE ELECT - Free Electives[a,b] | 3 | 3 |
| | | **15** | **12** |
| | | | **Total: 120 Credits** |

[1]The selection of a First Year Seminar is likely to fulfill requirements both for the First Year Seminar and a General Education Requirement. Thus, the First Year Seminar will not add to the total credits for the semester. Talk with your advisor if you have any questions.

[2]At least two cognates total minimum of six credits prefixed ACC, ECO, FIN, or DS in addition to those already specified are required. The course numbers must be such that the course would count toward a major in the appropriate program or the concentration in the case of DS.
[3]At least two MATH Elective courses total minimum of six credits numbered 299 or higher beyond those already specified are required.
[4] At least two STEM Elective courses total minimum of six credits prefixed BCMB, BIOL, CHEM, CMPS, MATH, NEUR, PHYS, or PSIO beyond those already specified are required. The course numbers must be such that the course would count toward a major in the appropriate program.
[a]Either Free Electives or STEM Elective courses may be used to fulfill the natural science (E) GE requirement.

[b]Free electives, STEM electives, major electives, cognate electives, and/or GE electives may be used to fulfill the GE requirement of two EPW II courses

## Biological Sciences Track Curriculum

| | *Department and Number - Descriptive Title of Course* | *Fall Cr.* | *Spr. Cr.* |
|---|---|---|---|
| **First Year** | | | |
| MAJOR | MATH 114 - (Q) Calculus I — MATH 221 - Calculus II | 4 | 4 |
| COGNATE | BIOL 141 - (E) (FYOC, FYDT Lab only) General Biology | 4.5 | |
| COGNATE | BIOL 142 - (E) (FYOC, FYDT Lab only) General Biology | | 4.5 |
| GE EP I | WRTG 107 - (FYW) Composition | | 3 |
| GE PHIL - GE T/RS | PHIL 120 - Introduction to Philosophy — T/RS 121 - (P) Theology I: Introduction to the Bible | 3 | 3 |
| GE HUMN | HUMN ELECT - Humanities Electives[b] | 3 | 3 |
| FSEM | First Year Seminar[1] | | |
| | | **14.5** | **17.5** |
| **Second Year** | | | |
| MAJOR | MATH 222 - Calculus III — MATH 351 - Linear Algebra | 4 | 3 |
| COGNATE | CHEM 112 - (E) General and Analytical Chemistry/CHEM 112L — CHEM 113 - (E) General and Analytical Chemistry/CHEM 113L | 4.5 | 4.5 |
| GE HUMN | HUMN ELECT - Humanities Elective[b] | | 3 |
| GE S/BH | S/BH ELECT - Social/Behavioral Electives[b] | 3 | 3 |
| GE PHIL - GE T/RS | PHIL 210 - Ethics — T/RS 122 - (P) Theology II: Introduction to Christian Theology | 3 | 3 |
| | | **14.5** | **16.5** |
| **Third Year** | | | |
| MAJOR | MATH 341 - Differential Equations — MATH 441 - Partial Differential Equations | 4 | 3 |

| | | | |
|---|---|---|---|
| MAJOR | MATH 312 - Probability OR MATH 361 - Numerical Analysis — MATH 463 - (EPW) Topics in Biomathematics | 3 | 3 |
| COGNATE | Organic Chemistry Lecture/ Lab OR Biology Lecture/Lab[2,b] | 4.5 | 4.5 |
| COGNATE | COGNATE ELECT - Cognate Electives[3,b] | 3 | 3 |
| GE ELECT | FREE ELECT - Free Electives[b] | 3 | 3 |
| | | **17.5** | **16.5** |
| **Fourth Year** | | | |
| MAJOR | MATH ELECT - Mathematics Electives[4,b] | 3 | 3 |
| STEM | STEM ELECT - STEM Electives[5,a,b] | 3 | 3 |
| GE HUMN | HUMN ELECT - Humanities Elective[b] | 3 | |
| GE PHIL - GE T/RS | PHIL ELECT - Philosophy Elective - T/RS ELECT - Theology Elective[b] | | 3 |
| GE ELECT | FREE ELECT - Free Electives[b] | 3 | 3 |
| | | **12** | **12** |
| | | | **Total: 121 Credits** |

[1]The selection of a First Year Seminar is likely to fulfill requirements both for the First Year Seminar and a General Education Requirement. Thus, the First Year Seminar will not add to the total credits for the semester. Talk with your advisor if you have any questions.

[2]Students must choose a sequence of two lecture/lab courses from CHEM 232/232L, CHEM 233/233L, or two from: BIOL 245, 350, 351, 370, 371, or 374 with both the lecture and the corresponding lab required. The organic chemistry sequence CHEM 232/232L, CHEM 233/233L is suggested for students oriented toward pre-health.

[3]At least two cognates total minimum of six credits prefixed BCMB, BIOL, NEUR, or PSIO in addition to those already specified are required. The course numbers must be such that the course would count toward a major in the appropriate program.

[4]At least two MATH elective courses total minimum of six credits numbered 299 or higher beyond those already specified are required.

[5]At least two STEM elective courses total minimum of six credits prefixed BCMB, BIOL, CHEM, CMPS, MATH, NEUR, PHYS, or PSIO beyond those already specified are required. The course numbers must be such that the course would count toward a major in the appropriate program.

[a]Students pursuing a pre-health curriculum are encouraged to use the STEM elective courses to meet additional science course requirements appropriate for their specific pre-health interests.

[b]A free elective, STEM elective, major elective, cognate elective, or GE elective may be used to fulfill the GE requirement of a second EPW II course.

## Computer & Information Science Track Curriculum

| | ***Department Number - Descriptive Title of Course*** | ***Fall Cr.*** | ***Spr. Cr.*** |
|---|---|---|---|
| **First Year** | | | |
| MAJOR | MATH 114 - (Q) Calculus I — MATH 221 - Calculus II | 4 | 4 |
| COGNATE | CMPS 134 - Computer Science I/CMPS 134L — CMPS 144 - Computer Science II/CMPS 144L | 4 | 4 |

| | | | |
|---|---|---|---|
| GE EPI | EPI ELECT - (FYOC-FYDT) Elective — WRTG 107 - (FYW) Composition | 3 | 3 |
| GE PHIL - GE T/RS | PHIL 120 - Introduction to Philosophy — T/RS 121 - (P) Theology I: Introduction to the Bible | 3 | 3 |
| GE HUMN ELECT | HUMN ELECT - Humanities Electives[b] | 3 | 3 |
| GE FSEM | First Year Seminar[1] | | |
| | | **17** | **17** |
| **Second Year** | | | |
| MAJOR | MATH 222 - Calculus III — MATH 351 - Linear Algebra | 4 | 3 |
| MAJOR | MATH 142 - (Q) Discrete Structures | 4 | |
| COGNATE | CMPS 240 - Data Structures and Algorithms — CMPS 250 - Machine Organization and Assembly Language Programming | 3 | 3 |
| GE HUMN ELECT | HUMN ELECT - Humanities Elective[b] | | 3 |
| GE S/BH ELECT | S/BH ELECT - Social/Behavioral Electives[b] | 3 | 3 |
| GE PHIL- GE T/RS | PHIL 210 - Ethics — T/RS 122 - (P) Theology II: Introduction to Christian Theology | 3 | 3 |
| | | **17** | **15** |
| **Third Year** | | | |
| MAJOR | MATH 312 - Probability OR MATH 361 - Numerical Analysis — MATH 371 - Applied Combinatorics | 3 | 3 |
| MAJOR | MATH 360 - Coding Theory — MATH 368 - Cryptography | 3 | 3 |
| COGNATE | NSCI ELECT - Natural Science Electives[a] | 4-4.5 | 4-4.5 |
| COGNATE ELECT | COGNATE ELECT - Cognate Electives[2,b] | 3 | 3 |
| GE ELECT | FREE ELECT - Free Electives[a,b] | 3 | 3 |
| | | **16-16.5** | **16-16.5** |
| **Fourth Year** | | | |
| MAJOR | MAJOR ELECT - Major Electives[3,b] | 3 | 3 |
| STEM ELECT | STEM ELECT - STEM Electives[4,b] | 3 | 3 |
| GE HUMN | HUMN ELECT - Humanities Elective | 3 | |
| GE PHIL - GE T/RS | PHIL ELECT - Philosophy Elective - T/RS ELECT - Theology Elective[b] | | 3 |
| GE ELECT | FREE ELECT - Free Electives[b] | 3 | 3 |
| | | **12** | **12** |
| | | | **Total: 122-123 Credits** |

[1]The selection of a First Year Seminar is likely to fulfill requirements both for the First Year Seminar and a General Education Requirement. Thus, the First Year Seminar will not add to the total credits for the semester. Talk with your advisor if you have any questions.

[2]At least two cognates total minimum of six credits prefixed CMPS or DS in addition to those already specified are required. The course numbers must be such that the course would count toward a major in the appropriate program or the concentration in the case of DS.

[3]At least two MATH Elective courses total minimum of six credits numbered 299 or higher beyond those already specified are required.

[4]At least two STEM Elective courses total minimum of six credits prefixed BCMB, BIOL, CHEM, CMPS, MATH, NEUR, PHYS, or PSIO beyond those already specified are required. The course numbers must be such that the course would count toward a major in the appropriate program.

[a]Students must choose one of the following sequences of natural science courses, BIOL 141-BIOL 142, CHEM 113-CHEM 114L, or PHYS 140/PHYS 140L-PHYS 141/PHYS 141L. The corresponding labs are also required. These courses satisfy the natural science (E) GE requirement.

[b]Free electives, STEM electives, major electives, cognate electives, and/or GE electives may be used to fulfill the GE requirement of two EPW II courses.

## Data Science Track Curriculum

| | *Department Number - Descriptive Title of Course* | *Fall Cr.* | *Spr. Cr.* |
|---|---|---|---|
| **First Year** | | | |
| MAJOR | MATH 114 - (Q) Calculus I — MATH 221 - Calculus II | 4 | 4 |
| COGNATE | CMPS 134 - Computer Science I/CMPS 134L — CMPS 144 - Computer Science II/CMPS 144L | 4 | 4 |
| GE EPI | EPI ELECT - (FYOC-FYDT) Elective — WRTG 107 - (FYW) Composition | 3 | 3 |
| GE PHIL - GE T/RS | PHIL 120 - Introduction to Philosophy — T/RS 121 - (P) Theology I: Introduction to the Bible | 3 | 3 |
| GE HUMN ELECT | HUMN ELECT - Humanities Electives[b] | 3 | 3 |
| GE FSEM | First Year Seminar[1] | | |
| | | **17** | **17** |
| **Second Year** | | | |
| MAJOR | MATH 222 - Calculus III — MATH 351 - Linear Algebra | 4 | 3 |
| COGNATE | Natural Science Sequence[a] | 4-4.5 | 4-4.5 |
| COGNATE | DS 201 - (Q) Introduction to Data Science | 3 | |
| GE HUMN ELECT | HUMN ELECT - Humanities Elective[b] | | 3 |
| GE S/BH ELECT | S/BH ELECT - Social/Behavioral Electives[b] | 3 | 3 |
| GE PHIL- GE T/RS | PHIL 210 - Ethics — T/RS 122 - (P) Theology II: Introduction to Christian Theology | 3 | 3 |
| | | **17-17.5** | **16-16.5** |
| **Third Year** | | | |
| MAJOR | MATH 312 - Probability — MATH 314 - Mathematical Statistics | 3 | 3 |
| MAJOR | MATH 361 - Numerical Analysis — MATH 330 - Actuarial Mathematics | 3 | 3 |

| | | | |
|---|---|---|---|
| COGNATE | CMPS 240 - Data Structures and Algorithms | 3 | |
| COGNATE | DS 362 - Data-Driven Knowledge Discovery | | 3 |
| COGNATE ELECT | COGNATE ELECT - Cognate Electives[2,b] | 3 | 3 |
| GE ELECT | FREE ELECT - Free Electives[b] | 3 | 3 |
| | | **15** | **15** |
| **Fourth Year** | | | |
| MAJOR | MAJOR ELECT - Major Electives[3,b] | 3 | 3 |
| STEM ELECT | STEM ELECT - STEM Electives[4,b] | 3 | 3 |
| GE HUMN | HUMN ELECT - Humanities Elective[b] | 3 | |
| GE PHIL - GE T/RS | PHIL ELECT - Philosophy Elective - T/RS ELECT - Theology Elective[b] | | 3 |
| GE ELECT | FREE ELECT - Free Electives[b] | 3 | 3 |
| | | **12** | **12** |
| | | | **Total: 121-122 Credits** |

[1]The selection of a First Year Seminar is likely to fulfill requirements both for the First Year Seminar and a General Education Requirement. Thus, the First Year Seminar will not add to the total credits for the semester. Talk with your advisor if you have any questions.

[2]At least two cognates total minimum of six credits prefixed ACC, ECO, FIN, or DS in addition to those already specified are required. The course numbers must be such that the course would count toward a major in the appropriate program or the concentration in the case of DS.

[3]At least two MATH Elective courses total minimum of six credits numbered 299 or higher beyond those already specified are required.

[4]At least two STEM Elective courses total minimum of six credits prefixed BCMB, BIOL, CHEM, CMPS, MATH, NEUR, PHYS, or PSIO beyond those already specified are required. The course numbers must be such that the course would count toward a major in the appropriate program.

[a]Students must choose one of the following sequences of natural science courses, BIOL 141-BIOL 142, CHEM 113-CHEM 114L, or PHYS 140-PHYS 141. The corresponding labs are also required. These courses will satisfy the natural science (E) GE requirement.

[b]Free electives, STEM electives, major electives, cognate electives, and/or GE electives may be used to fulfill the GE requirement of two EPW II courses.

## Physical Sciences Track Curriculum

| | ***Department Number - Descriptive Title of Course*** | ***Fall Cr.*** | ***Spr. Cr.*** |
|---|---|---|---|
| **First Year** | | | |
| MAJOR | MATH 114 - (Q) Calculus I — MATH 221 - Calculus II | 4 | 4 |
| COGNATE | PHYS 140/PHYS 140L - (E) Elements of Physics I — PHYS 141/PHYS 141L - (E) Elements of Physics II | 4 | 4 |
| GE EPI | EPI ELECT - (FYOC-FYDT) Elective — WRTG 107 - (FYW) Composition | 3 | 3 |
| GE PHIL - GE T/RS | PHIL 120 - Introduction to Philosophy — T/RS 121 - (P) Theology I: Introduction to the Bible | 3 | 3 |

| | | | |
|---|---|---|---|
| GE HUMN ELECT | HUMN ELECT - Humanities Electives[a] | 3 | 3 |
| GE FSEM | First Year Seminar[1] | | |
| | | **17** | **17** |
| **Second Year** | | | |
| MAJOR | MATH 222 - Calculus III — MATH 351 - Linear Algebra | 4 | 3 |
| COGNATE | CHEM 112 - (E) General and Analytical Chemistry/CHEM 112L — CHEM 113 - (E) General and Analytical Chemistry/CHEM 113L | 4.5 | 4.5 |
| GE HUMN ELECT | HUMN ELECT - Humanities Elective[a] | | 3 |
| GE S/BH ELECT | S/BH ELECT - Social/Behavioral Electives[a] | 3 | 3 |
| GE PHIL- GE T/RS | PHIL 210 - Ethics — T/RS 122 - (P) Theology II: Introduction to Christian Theology | 3 | 3 |
| | | **14.5** | **16.5** |
| **Third Year** | | | |
| MAJOR | MATH 341 - Differential Equations — MATH 441 - Partial Differential Equations | 4 | 3 |
| MAJOR | MATH 312 - Probability OR MATH 361 - Numerical Analysis | 3 | |
| STEM ELECT | STEM ELECT - STEM Elective[4,a] | | 3 |
| COGNATE | PHYS 270/PHYS 270L - (EPW: Lab only) Elements of Modern Physics OR CHEM 232 - (E) Organic Chemistry/ CHEM 232L | 4-4.5 | |
| COGNATE | PHYS 352 - Statistical and Engineering Thermodynamics OR CHEM 233 - (E) Organic Chemistry/ CHEM 233L - Organic Chemistry Laboratory/CHEM 233L | | 3-4.5 |
| COGNATE ELECT | COGNATE ELECT - Cognate Electives[2,a] | 3 | 3 |
| GE ELECT | FREE ELECT - Free Electives[a] | 3 | 3 |
| | | **17-17.5** | **15-16.5** |
| **Fourth Year** | | | |
| MAJOR | MATH 461 - Complex Variables OR MATH 371 - Applied Combinatorics | 3 | |
| MAJOR | MAJOR ELECT - Major Electives[3,a] | 3 | 3 |
| STEM ELECT | STEM ELECT - STEM Elective[4,a] | | 3 |
| GE HUMN | HUMN ELECT - Humanities Elective[a] | 3 | |
| GE PHIL - GE T/RS | PHIL ELECT - Philosophy Elective - T/RS ELECT - Theology Elective[a] | | 3 |
| GE ELECT | FREE ELECT - Free Electives[a] | 3 | 3 |
| | | **12** | **12** |

| | |
|---|---|
| | **Total: 121-123 Credits** |

[1]The selection of a First Year Seminar is likely to fulfill requirements both for the First Year Seminar and a General Education Requirement. Thus, the First Year Seminar will not add to the total credits for the semester. Talk with your advisor if you have any questions.

[2]At least two cognates total minimum of six credits prefixed CMPS, or DS in addition to those already specified are required. The course numbers must be such that the course would count toward a major in the appropriate program or the concentration in the case of DS.

[3]At least two MATH Elective courses total minimum of six credits numbered 299 or higher beyond those already specified are required.

[4] At least two STEM Elective courses total minimum of six credits prefixed BCMB, BIOL, CHEM, CMPS, MATH, NEUR, PHYS, or PSIO beyond those already specified are required. The course numbers must be such that the course would count toward a major in the appropriate program.

[a]Free electives, STEM electives, major electives, cognate electives, and/or GE electives may be used to fulfill the GE requirement of two EPW II courses.

# Mathematics, BA

## Mathematics Curriculum

| | *Department and Number - Descriptive Title of Course* | *Fall Cr.* | *Spr. Cr.* |
|---|---|---|---|
| **First Year** | | | |
| MAJOR | MATH 114 - (Q) Calculus I – MATH 221 - Calculus II | 4 | 4 |
| COGNATE | COGNATE ELECT - Minor/Major Electives[3] | 3 | 3 |
| GE WRTG | WRTG 107 - (FYW) Composition | 3 | |
| GE PHIL-T/RS | PHIL 120 - Introduction to Philosophy – T/RS 121 - Theology I: Introduction to the Bible | 3 | 3 |
| GE HUMN | HUMN ELECT - Humanities Electives | 3 | 3 |
| GE FSEM | First Year Seminar[1] | | |
| EP FYDT-FYOC | Level I Digital Technology (FYDT)-Level I Oral Communication (FYOC) | | 3 |
| | | **16** | **16** |
| **Second Year** | | | |
| MAJOR | MATH 222 - Calculus III – MATH 299 - (EPW) Introduction to Mathematical Proof | 4 | 4 |
| MAJOR | MATH 351 - Linear Algebra – MATH ELECT[2] | 3 | 3 |
| COGNATE | COGNATE ELECT – Minor/Major Electives | 3 | 3 |
| GE S/BH | S/BH ELECT - Social/Behavioral Electives | 3 | 3 |
| GE PHIL–T/RS | PHIL 210 - Ethics – T/RS 122 - Theology II: Introduction to Christian Theology | 3 | 3 |

| | | | |
|---|---|---|---|
| | | **16** | **16** |
| **Third Year** | | | |
| MAJOR | MATH ELECT - Math Electives | 6 | 6 |
| COGNATE | COGNATE ELECT - Minor/Major Electives | 3 | 3 |
| GE HUMN | HUMN ELECT - Humanities Electives | | 3 |
| GE PHIL or T/RS | PHIL ELECT - Philosophy Elective or T/RS ELECT - T/RS Elective | 3 | |
| GE NSCI | NSCI ELECT - Natural Science Electives | 3-4 | 3-4 |
| | | **15-16** | **15-16** |
| **Fourth Year** | | | |
| MAJOR | MATH ELECT - Mathematics Electives | 3 | 3 |
| COGNATE | COGNATE ELECT - Minor/Major Electives | 6 | 6 |
| EPW | EPW ELECT - EP Level II Writing Electives[4] | 3 | 3 |
| GE HUMN | HUMN ELECT - Humanities Electives | 3 | |
| | | **15** | **12** |
| | **TOTAL: 121 - 123 Credits** | | |

[1]The selection of a First Year Seminar is likely to fulfill requirements both for the First Year Seminar and a General Education Requirement. Thus, the First Year Seminar will not add to the total credits for the semester. Talk with your advisor if you have any questions.

[2]Electives for Mathematics majors: Major electives are selected from Mathematics courses numbered above MATH 300; also PHYS 350, PHYS 351 or CMPS 364. Students must select as an elective at least one course from each of the following sets: (1) Applied Set: MATH 320, MATH 341, MATH 360, MATH 361, MATH 368, MATH 371; (2) Analysis Set: MATH 446, MATH 460, MATH 461; (3) Algebra Set: MATH 346, MATH 448. Students are encouraged to take their applied math elective in the second year.

[3]At least 30 credits of cognate electives must be applied towards: a second major; a concentration; certification; a combination of two minors, concentrations, or certifications; or a package of courses pre-approved by the department

[4]These EPW electives might also satisfy other curricular requirement(s). When an EPW elective satisfies other curricular requirements(s), an additional free elective will be required.

**Mathematics majors are required to take the Math Major Field Test in order to graduate.**

# Mathematics, BS

## Mathematics Curriculum

| | *Department and Number - Descriptive Title of Course* | *Fall Cr.* | *Spr. Cr.* |
|---|---|---|---|
| **First Year** | | | |
| MAJOR | MATH 114 - (Q) Calculus I – MATH 221 - Calculus II | 4 | 4 |
| COGNATE | CMPS 134 - Computer Science I/CMPS 134L | 4 | |
| GE C/IL | C/IL 102/102L - (FYDT) Computing and Information Literacy* | | 3 |
| GE SPCH-GE WRTG | COMM 100 - (FYOC) Public Speaking* – WRTG 107 - (FYW) Composition | 3 | 3 |
| GE PHIL–T/RS | PHIL 120 - Introduction to Philosophy – T/RS 121 - Theology I: Introduction to the Bible | 3 | 3 |
| GE HUMN | HUMN ELECT - Humanities Electives | 3 | 3 |
| GE FSEM | First Year Seminar[3] | | |
| | | **17** | **16** |
| **Second Year** | | | |
| MAJOR | MATH 222 - Calculus III – MATH 299 - (EPW) Introduction to Mathematical Proof | 4 | 4 |
| MAJOR | MATH 351 - Linear Algebra | | 3 |
| COGNATE | PHYS 140/PHYS 140L - (E) Elements of Physics I – PHYS 141/PHYS 141L - (E) Elements of Physics II | 4 | 4 |
| GE S/BH | S/BH ELECT - Social/Behavioral Electives | 3 | 3 |
| GE PHIL–T/RS | PHIL 210 - Ethics – T/RS 122 - Theology II: Introduction to Christian Theology | 3 | 3 |
| COGNATE | COGNATE ELECT - Cognate Elective[2] | 3 | |
| | | **17** | **17** |
| **Third Year** | | | |
| MAJOR | MATH 446 - Real Analysis I – ELECT - Elective | 3 | 3 |
| MAJOR | MATH 448 - Modern Algebra I – ELECT - Elective | 3 | 3 |
| COGNATE | COGNATE ELECT - Cognate Electives[2] | 3 | 3 |
| GE HUMN | HUMN ELECT - Humanities Electives | 3 | 3 |

| | | | |
|---|---|---|---|
| EPW | EPW ELECT - EP Level II Writing Electives[4] | 3 | 3 |
| | | **15** | **15** |
| **Fourth Year** | | | |
| MAJOR | MATH ELECT - Mathematics Electives[1] | 9 | 6 |
| COGNATE | COGNATE ELECT - Cognate Electives[2] | 3 | 3 |
| GE PHIL OR T/RS | PHIL ELECT - Philosophy Elective or T/RS ELECT - T/RS Elective | | 3 |
| GE ELECT | FREE ELECT - Free Electives | 3 | 3 |
| | | **15** | **15** |
| | **TOTAL: 127 Credits** | | |

[1]Electives for Mathematics majors: Major electives are selected from Mathematics courses numbered above MATH 300; also PHYS 350, PHYS 351 or CMPS 364. A student must select as an elective at least one of MATH 447 or MATH 449, and at least one course from each of the following three sets: (1) Analysis Set: MATH 447, MATH 460, MATH 461, MATH 462; (2) Algebra/Geometry Set: MATH 345, MATH 346, MATH 449; (3) Applied Set: MATH 320, MATH 341, MATH 360, MATH 361, MATH 368, MATH 371. Most Mathematics electives are offered every other year. Check with the department chair for the current schedule.

[2]Cognate electives must be used to complete a minor, a concentration, a second major, secondary-education certification, or a package of courses pre-approved by the department.

[3] The selection of a First Year Seminar is likely to fulfill requirements both for the First Year Seminar and a General Education Requirement. Thus, the First Year Seminar will not add to the total credits for the semester. Talk with your advisor if you have any questions.

[4]These EPW electives might also satisfy other curricular requirement(s). When an EPW elective satisfies other curricular requirement(s), an additional free elective will be required.

*An approved 3-credit EP Foundation Course may be substituted for COMM 100 and C/IL 102/102L-C/IL 104. In this case, the total needed for graduation in this major may be reduced. Consult with your advisor if you have questions.

**The results of the placement tests administered during freshman orientation assist students and their advisors in choosing the proper beginning-level mathematics sequence and the proper entry-level within that sequence. If a course is a prerequisite for a second course, directly or indirectly, and a student receives credit for the second course then that student will not be allowed to register for the prerequisite course. Mathematics majors are required to take the Math Major Field Test in order to graduate.**

## Data Science Concentration

Data science is an emerging and interdisciplinary field that uses scientific methods, processes, algorithms and systems to extract knowledge from data.

The Data Science Concentration is designed to offer an opportunity for students, mainly in Applied Math and Applied Computing, to acquire data science knowledge and skills in addition to their major

Students are required to take a total of 40 credits, of which 11 credits are of Math, 20 of Computer Science, and 9 of Data Science. Students in Applied Math and Applied Computing are able to complete the requirements as major courses, cognate course, and GE free electives.

## Data Science Curriculum

| *Department and Number - Descriptive Title of Course* | *Credits* |
|---|---|
| **First Year** | |
| MATH 114 - (Q) Calculus I | 4 |
| MATH 221 - Calculus II | 4 |
| CMPS 134 - Computer Science I/CMPS 134L | 4 |
| CMPS 144 - Computer Science II | 4 |
| **Second Year** | |
| MATH 351 - Linear Algebra | 3 |
| CMPS 240 - Data Structures and Algorithms | 3 |
| DS 201 - (Q) Introduction to Data Science | 3 |
| DS 210 - Mathematical Methods for Data Science* | 3 |
| **Third Year** | |
| CMPS 340 - Introduction to Database | 3 |
| CMPS 341 - Database Systems | 3 |
| DS 362 - Data-Driven Knowledge Discovery | 3 |
| **Fourth Year** | |
| CMPS 372 - Artificial Intelligence | 3 |
| | **Total: 40 Credits** |

* MATH 310 - Applied Probability and Mathematical Statistics may be used to substitute DS 210.

## Actuarial Science Minor

The Minor in Actuarial Science is designed to provide students with the fundamentals needed to pursue careers in the actuarial profession including coursework in the subject areas of two entry-level actuarial exams.

The Minor requires 21 to 24 credits:

## Foundational calculus courses

### Year 1 or 2

- MATH 114 - (Q) Calculus I
- MATH 221 - Calculus II

### Year 2 or 3

- MATH 222 - Calculus III

## Upper-division courses

### Year 3 or 4

- MATH 312 - Probability
- MATH 330 - Actuarial Mathematics

## One of the following two options

### Year 3 or 4

- Option 1: MATH 314 - Mathematical Statistics

### Year 1, 2, 3, or 4

- Option 2: ECO 153 - (S) Principles of Microeconomics and ECO 154 - (S) Principles of Macroeconomics

## Mathematics Minor

The Mathematics minor must include MATH 114, MATH 221, MATH 222, and MATH 351 and two additional electives chosen from Mathematics courses numbered above 298 or PHYS 350.

# Military Science/Army ROTC

Major William G. White, Professor Military Science/*Department Chair*

*Master Sergeant Jeremiah Larson, Senior Military Instructor*

## Overview

The Military Science Department offers courses in Leadership, Military History and Military Tactics to help prepare students to earn a commission in United States Army, U.S. Army Reserve or Army National Guard. Students take Military Science courses in addition to their normal academic workload. Courses are offered as part of two-, three-, and four-year programs to provide students the leadership skills and understanding of the military they need in order to become future leaders in the United States Army.

In addition to the classroom instruction, students are required to take part in a weekly Leadership Lab which focuses on training students in basic military skills such as first aid, land navigation and small unit tactics. Students are also expected to enroll in the Department's physical education program and complete physical training five mornings per week.

Students who are enrolled and not contracted in Military Science Level 101/102 and 201/202 courses incur no military service obligation.

Students who successfully complete the Military Science program, as well as meet other prescribed standards by the University of Scranton may qualify to earn an academic minor in leadership.

Upon completion of the Military Science Program students will have a strong understanding of the following fields:

Leadership Skills & Attributes/Military Law/Physical Training/Small Unit Tactics/Military Administration & Management/Army Values/Ethical Decision Making.

## Course Information

Courses for the **Military Science/Army ROTC Program** are listed under the prefix MS. For more information on these courses, visit our Military Science/Army ROTC Department Courses page. For information and all courses offered, visit our Course Descriptions page.

## Leadership Minor

American Military Leadership emphasizes total competence in one's field, coupled with an absolute respect for ethics. It is based on the knowledge of people, history, and current management practices. The Military Science Department offers a minor in Leadership that capitalizes on the classroom instruction offered in the courses listed below provided by several University departments. The minor also offers unique field experiences for students to apply leadership skills in demanding but safe and controlled training activities. The minor is open to all University students in the military science courses.

A minor in Leadership requires 18 credits, at least six of which must be approved electives outside of the Military Science department. The student must take MS 101/102, MS 201/202, MS 301/302, and MS 401/402 plus courses from the list of approved electives. They must also complete a University or Army internship approved by the instructor of record, the Professor of Military Science. Depending on the credit value of the internship, the student must choose 6 credits from the following list of approved courses. (Courses counted towards a student's major may not be counted toward the first 15 credits of the minor.)

- CJ 237 - The Investigative Process
- GEOG 134 - (S) World Regional Geography
- HIST 214 - (CH,D) History of Contemporary World Politics
- HIST 216 - (CH,D) Race in American History
- HIST 218 - The World at War, 1939-45
- HIST 220 - (CH) War and Modern Society
- HIST 219 - (CH,D) Modern World History
- HIST 223 - (CH) Irish History
- HIST 239 - (CH,D) History of American Women: From Mid-Nineteenth Century to the Present
- MGT 351 - Principles of Management and Entrepreneurship I
- MGT 352 - Principles of Management and Entrepreneurship II
- MS 480 - Internship in Military Science: ROTC Advanced Camp
- MS 481 - Internship in Military Science: Cadet Professional Development Training
- MS 138 - Physical Fitness Training*
- PS 120 - (S) U.S. Politics: Principles & Citizenship
- PS 121 - (S) U.S. Politics: Institutions & Policy
- PS 213 - (D) Modern Africa
- PS 227 - (D,S) Women, Authority and Power
- PS 231 - (S) Environmental Policy Process
- PS 232 - Public Administration
- PS 327 - U.S. Congress
- PS 329 - The American Presidency
- PSYC 220 - (S) Social Psychology
- PSYC 236 - Industrial/Organizational Psychology
- S/CJ 234 - Criminal Justice Management

*This one credit class may not count more than 3 times toward the leadership minor.

The student must receive a grade of C or better in each course in order for it to count towards the minor, and the student must have an average of 3.0 in the courses counting toward the minor. MS 480 and MS 481 cannot be used as required courses for the minor and as

the leadership internships. Advanced placement Lateral Entry Students may substitute course for MS 101 through MS 202 with the permission of the Professor of Military Science.

# Military Science

## *Advanced ROTC Course*

Juniors, seniors and graduate students qualify for entry into the Advanced ROTC course in two ways:

1. **On-campus courses:** Most students take the introductory Military Science courses of the basic Military Science program on campus during their freshman and sophomore years. This allows them to participate in adventure training, and to learn about the opportunities and responsibilities of being an Army officer.
2. **Advanced Placement:** Students with any prior military service, members of the United States Army, Army Reserves or National Guard, or former Junior ROTC members may qualify for advanced placement into the Advanced ROTC program. Advanced placement can also be achieved by attending ROTC Basic Camp for students with no prior military experience. Advanced placement is reviewed and approved on a case by case basis by the Professor of Military Science.

### *Two-Year Program*

Available to qualified full-time students (who must have a minimum of two academic years remaining to degree completion) who meet the criteria set forth in paragraphs above. Application for this program should be made prior to the end of the spring semester of the sophomore year for those students not previously enrolled in Military Science instruction. Also available for graduate students who must apply at least one semester prior to their ROTC desired starting semester. Participation in this program is limited.

### *Three-Year Program*

A three-year program is available. Because the program varies widely, students who are interested should contact the ROTC Department.

### *Four-Year Program*

Consists of attending the freshman and sophomore courses; students can begin as late as the fall semester of their sophomore year if approved by the department chair. Enrollment in the first four courses of Military Science is accomplished in the same manner as any other college course and carries no military obligation for non-scholarship students. Application to enroll in the advanced Military Science courses should be made while the student is enrolled in MS 202 Dynamics of Leadership II.

Each contracted student is required to complete the ROTC Advanced Camp a paid, four-week training course normally offered during the summer months between a student's junior and senior year at Fort Knox, Kentucky. Transportation, food, lodging, medical, and dental care are provided at no cost to the student.

### *Scholarships*

There are scholarship opportunities for ROTC students. Army ROTC scholarships are full-tuition scholarships. Additionally, scholarships include $1,200 for books and a $4,200 annual stipend. The monthly stipend amount, paid from August to May, is $420 for all Cadets freshman through graduate level. Freshmen and sophomores can apply for two-, three-, and four-year scholarships throughout the academic year.

### *Transcript Credit*

Up to 15 Military Science credits can be counted on the transcript. Nursing Cadets receive 3 credits toward senior-year clinicals for the Army Nurse Summer Training Program. Candidates for an Army commission through Military Science/Army ROTC are required by regulation to complete an academic course in military history. Generally, this requirement will be met by satisfying the University's general-education requirements. Contact the Professor of Military Science for specific requirements.

# Neuroscience

## Faculty

## *Primary*

Robert F. Waldeck, Ph.D., *Program Director*

J. Timothy Cannon, Ph.D.

Gary G. Kwiecinski, Ph.D.

Patrick T. Orr, Ph.D.

Marc Seid, Ph.D.

Jong-Hyun Son, Ph.D.

### *Secondary*

Yaodong Bi, Ph.D.

Bryan R. Burnham, Ph.D.

Timothy D. Foley, Ph.D.

Jason M. Graham, Ph.D.

Jerry R. Muir Jr., Ph.D.

Katherine Stumpo, Ph.D.

Jill A. Warker, Ph.D.

## Overview

The foundation courses of this interdisciplinary curriculum are selected from the Biology, Psychology and Chemistry departments. Depending upon the electives chosen, the program can prepare students for a variety of graduate programs within the field of neuroscience. Such graduate training may draw from a range of disciplines, including biology, psychology, anatomy, pharmacology, toxicology, biophysics, biochemistry and medicine. Students have ample research opportunities in laboratories that can support a diversity of behavioral, biochemical, neurophysiological and neuroanatomical investigations. Te program is administered by an interdisciplinary committee.

## Course Information

Courses for **Neuroscience** are listed under the prefixes BIOL, CHEM, and PSYC. For more information on these and all courses offered, visit our Course Descriptions page.

# Neuroscience, BS

## *Major in Neuroscience*

43 to 46 credits.

Majors must take **12 credits in electives** which include: **two from biology and two from psychology**. Courses appropriate for biology majors would count for a biology elective and courses **appropriate for a psychology major** would count for a psychology elective. In addition, majors must take either 3 credits of NEUR 493 - Undergraduate Research in Neuroscience or NEUR 490 - Neuroscience: Literature and Society I and NEUR 491 - Neuroscience: Literature and Society II. With permission of the director, NEUR 384 may be used to fulfill one psychology or biology elective requirement.

## *Cognate in Neuroscience*

31 to 37 credits.

Students should consider their projected graduate program when choosing cognate electives from the areas of chemistry, mathematics, physics, and computer science.

For information on **Neuroscience** courses visit our Neuroscience Courses page. For information on all courses offered, visit our Course Descriptions page.

## Neuroscience Curriculum

| | *Department and Number - Descriptive Title of Course* | *Fall Cr.* | *Spr. Cr.* |
|---|---|---|---|
| **First Year** | | | |
| MAJOR (GE NSCI) | BIOL 141 - (E) (FYOC, FYDT Lab only) General Biology (with lab) – BIOL 142 - (E) (FYOC, FYDT Lab only) General Biology(with lab)* | 4.5 | 4.5 |

| | | | |
|---|---|---|---|
| MAJOR | NEUR 110 - Neuroscience Lab Rotations – NEUR 111 - Neuroscience Research Literature | 0.5 | 1 |
| COGNATE | CHEM 112-113 - (E) General and Analytical Chemistry/CHEM 112L-113L | 4.5 | 4.5 |
| COGNATE (GE QUAN) | MATH 114 - (Q) Calculus I | | 4 |
| MAJOR (GE S/BH) | PSYC 110 - (S) Fundamentals of Psychology | 3 | |
| GE WRTG | WRTG 107 - (FYW) Composition | | 3 |
| GE FSEM | First Year Seminar[2] | | |
| GE T/RS | T/RS 121 - Theology I: Introduction to the Bible | 3 | |
| | | **15.5** | **17** |
| **Second Year** | | | |
| MAJOR | ELECT - Major Elective | | 3 |
| MAJOR | NEUR 231 - (E) Behavioral Neuroscience | 4.5 | |
| MAJOR | PSYC 210 - (Q) Statistics in the Behavioral Sciences | 3 | |
| MAJOR | NEUR 330 - (EPW) Neuroscience Research Methods[1] | | 4 |
| COGNATE ELECT | COGNATE ELECT - Cognate Electives | 3-4.5 | 3-4.5 |
| GE PHIL–T/RS | PHIL 120 - Introduction to Philosophy – T/RS 122 - Theology II: Introduction to Christian Theology | 3 | 3 |
| | | **13.5-15** | **13-14.5** |
| **Third Year** | | | |
| MAJOR | NEUR 358 - Cellular and Molecular Neurobiology | 3 | |
| MAJOR | MAJOR ELECT - Major Electives | 6-8 | 3-4 |
| COGNATE ELECT | COGNATE ELECT - Cognate Electives | 3 | 3-4 |
| GE PHIL | PHIL 210 - Ethics | | 3 |
| GE HUMN | HUMN ELECT - Humanities Electives | 3 | 3 |
| GE S/BH | S/BH ELECT - Social/Behavioral Elective | | 3 |
| | | **15-17** | **15-17** |
| **Fourth Year** | | | |

| | | | |
|---|---|---|---|
| MAJOR | NEUR 493 - Undergraduate Research in Neuroscience or NEUR 490 - Neuroscience: Literature and Society I and NEUR 491 - Neuroscience: Literature and Society II | 3-1.5 | 0-1.5 |
| COGNATE ELECT | COGNATE ELECT - Cognate Electives | 6-8 | |
| GE HUMN | HUMN ELECT - Humanities Electives | 3 | 3 |
| GE PHIL–T/RS | PHIL ELECT - Philosophy Elective or T/RS ELECT- T/RS Elective | | 3 |
| GE ELECT | FREE ELECT - Free Electives | 3 | 9 |
| | | **14.5-18** | **16.5** |
| | **Total: 120 - 129 Credits** | | |

[1] *NEUR 330 fulfills one of the writing-intensive requirements of the general education program.*

[2] *The selection of a First Year Seminar is likely to fulfill requirements both for the First Year Seminar and a General Education Requirement. Thus, the First Year Seminar will not add to the total credits for the semester. Talk with your advisor if you have any questions.*

**Successful completion of BIOL 141 Lab and BIOL 142 Lab satisfies the EP requirement.*

# Philosophy

## Faculty

Daniel Haggerty, Ph.D., *Chair*

Duane Armitage, Ph.D.

David W. Black, Ph.D.

Timothy K. Casey, Ph.D.

Christopher Fremaux, Ph.D.

Christopher Hauser, ABD

Richard J. Klonoski, Ph.D.

Andrew LaZella, Ph.D.

Ronald McKinney, S.J., Ph.D.

Matthew Meyer, Ph.D.

J. Patrick Mohr, S.J., Ph.D.

Kevin M. Nordberg, Ph.D.

Ann A. Pang-White, Ph.D

William V. Rowe, Ph.D.

Matthew F. Shea, Ph.D

Patrick Tully, Ph.D.

David A. White, Ph.D.

## Overview

The basic objectives of the Philosophy Department may be stated as follows:

1. To inspire the student to confront the philosophical problems implicit in the experience of self, others and the universe, together with the question of their relations to ultimate transcendence (God and immortality);
2. To develop in the student habits of clear, critical thinking within the framework of both an adequate philosophical methodology and accepted norms of scholarship;
3. To introduce the student to reading critically the great philosophers, past and present; and
4. Finally, to help the student to formulate for himself or herself a philosophy of life or worldview consistent with the objectives of liberal education at a Catholic and Jesuit university.

For the Bachelor of Arts degree in Philosophy, the major must take 24 credits (eight courses) in Philosophy in addition to the 6 credits required of all students. These 24 credits must include a logic course and at least two courses on the 300 or 400 level. Majors should take logic before the senior year.

See also the Philosophy offerings in the SJLA Program by visiting our SJLA Program page.

For information on the CAS/MBA Five-Year Program, visit our CAS/MBA Five-Year Program page.

## Course Information

Courses for **Philosophy** are listed under the prefix PHIL. For more information on these courses, visit the Philosophy Department Courses page. For more information on all courses offered, visit our Course Descriptions page.

# Philosophy, BA

## Philosophy Curriculum

| | *Department and Number - Descriptive Title of Course* | *Fall Cr.* | *Spr. Cr.* |
|---|---|---|---|
| **First Year** | | | |
| MAJOR | PHIL 120 - Introduction to Philosophy — PHIL 210 - Ethics | 3 | 3 |
| GE WRTG – SPCH | WRTG 107 - (FYW) Composition — COMM 100 - (FYOC) Public Speaking | 3 | 3 |
| GE C/IL | C/IL 102/102L - (FYDT) Computing and Information Literacy* | | 3 |
| GE HUMN | HUMN ELECT - Humanities Electives | 3 | 3 |
| GE QUAN | QUAN ELECT - Quantitative Elective | 3 | |
| GE NSCI – S/BH | NCSI ELECT - Natural Science Elective — S/BH ELECT - Soc/Beh. Elective | 3 | 3 |
| GE FSEM | First Year Seminar[3] | | |
| | | **15** | **15** |
| **Second Year** | | | |
| MAJOR | PHIL 215 - (P) Logic or PHIL 240 - (P) Logic and Written Discourse or PHIL 305 - (P) Symbolic Logic — Philosophy Elective | 3 | 3 |

| | | | |
|---|---|---|---|
| GE T/RS | T/RS 121 - Theology I: Introduction to the Bible — T/RS 122 - Theology II: Introduction to Christian Theology | 3 | 3 |
| GE HUMN | LANG ELECT - Humanities Electives[1] | 3 | 3 |
| GE S/BH – NSCI | S/BH ELECT - Soc./Beh. Elective — NSCI ELECT - Nat. Sci. Elective | 3 | 3 |
| GE ELECT | FREE ELECT - Free Elective - Free Elective | 3 | 3 |
| | | **15** | **15** |
| **Third Year** | | | |
| MAJOR | PHIL 200 or 300 or 400 level - Philosophy Electives | 3 | 6 |
| COGNATE | COGNATE ELECT - Cognate Electives[2] | 9 | 9 |
| GE ELECT | FREE ELECT - Free Electives | 3 | 3 |
| | | **15** | **18** |
| **Fourth Year** | | | |
| MAJOR | PHIL 300 or 400 level - Philosophy Electives** | 6 | 3 |
| COGNATE | COGNATE ELECT - Cognate Electives[2] | 9 | 9 |
| GE ELECT | FREE ELECT - Free Electives | 3 | 3 |
| | | **18** | **15** |
| | | | **Total: 126 Credits** |

*[1] Foreign language is recommended by department.*

*[2] In the Cognate area of 36 hours, the department requires that 12 credits be focused in one field. It should be noted that 6 credits not required by the department in the major area are added to the free area in senior year. These may be taken in any field, including Philosophy.*

*[3] The selection of a First Year Seminar is likely to fulfill requirements both for the First Year Seminar and a General Education Requirement. Thus, the First Year Seminar will not add to the total credits for the semester. Talk with your advisor if you have any questions.*

*[*]An approved 3-credit EP Foundation Course may be substituted for COMM 100 and C/IL 102/102L-C/IL 104. In this case, the total needed for graduation in this major may be reduced. Consult with your advisor if you have questions.*

*** Of the seven electives for the major, at least two must be at the 300-level or higher, and at least one must be at the 400-level.*

## Philosophy Minor

A minor in Philosophy consists of 18 credits – the 6 credits required of all students and 12 additional credits. If desired, students may customize a minor in order to link Philosophy to some other major area or topic of interest to them. Suggestions of specific minors are available on the **Philosophy Department web page** and in the Philosophy Department office.

# Physics and Engineering

## Faculty

W. Andrew Berger, Ph.D., *Chair*

Nathaniel A. Frissell, Ph.D.

Mohammad A. Maktoomi, Ph.D.

Declan Mulhall, Ph.D.

Juan D. Serna, Ph.D.

Robert A. Spalletta, Ph.D.

Nicholas Truncale, M.S.

Argyrios C. Varonides, Ph.D.

Christine A. Zakzewski, Ph.D.

Amir H. Zamanian, Ph.D.

## Mission Statement

The mission of the Department of Physics and Engineering is to provide comprehensive undergraduate degree programs in Physics, Electrical Engineering, Computer Engineering, Mechanical Engineering, Biophysics, and Engineering Management. The department is committed to providing an environment in which our students attain the knowledge and skills to contribute to, and thrive in, their chosen profession. This environment includes a full spectrum of courses, providing a framework and foundation, research and internship opportunities to foster the application and expansion of knowledge and skills, mentoring and advising to promote personal and intellectual growth and opportunities to reach out to the local and regional community to reinforce a commitment to ethical, professional and socially conscientious practices. The Department of Physics and Engineering seeks to support the overall mission of The University of Scranton and the College of Arts and Sciences to provide a transformative educational experience for our students firmly rooted in the Jesuit intellectual tradition.

## Course Information

Courses for Engineering are listed under the prefixes ENGR, E/CE, EE, EM and ME. Courses for Physics are listed under the prefix PHYS. For more information on these courses visit the Physics and Engineering Department Courses page. For more information, visit our Courses By Departments page.

## Affiliated Programs

**The Environmental Studies Concentration is affiliated with the department.**

For information on the CAS/MBA Five-Year Program, visit our CAS/MBA Five-Year Program page.

For more information about the Physics and Engineering department, visit its website.

# Biophysics, BS

The Biophysics major is designed to prepare a student to apply the physical and mathematical sciences to problems arising in the life sciences and medicine. By choosing proper electives, the student can prepare to enter graduate study of biophysics, medical physics, biomedical engineering, medicine, optometry, or dentistry.

## Biophysics Curriculum

| | *Department and Number - Descriptive Title of Course* | *Fall Cr.* | *Spr. Cr.* |
|---|---|---|---|
| **First Year** | | | |
| MAJOR | PHYS 140/PHYS 140L - (E) Elements of Physics I – PHYS 141/PHYS 141L - (E) Elements of Physics II | 4 | 4 |

| | | | |
|---|---|---|---|
| MAJOR | BIOL 141/BIOL 141L (E) (FYOC, FYDT Lab only) General Biology – BIOL 142/BIOL142L (E) (FYOC, FYDT Lab only) General Biology[1] | 4.5 | 4.5 |
| COGNATE | MATH 109 - (Q) Pre-Calculus Mathematics – MATH 114 - (Q) Calculus I or MATH 114 - (Q) Calculus I – MATH 221 - Calculus II[2] | 4 | 4 |
| GE EP - GE WRTG | ENGR 150 - (FYOC, FYDT) Foundations of Physics and Engineering — WRTG 107 - (FYW) Composition | 3 | 3 |
| GE FSEM | First Year Seminar[3] | | |
| | | **15.5** | **15.5** |
| **Second Year** | | | |
| MAJOR | PHYS 270/PHYS 270L - (EPW: Lab only) Elements of Modern Physics – PHYS 352 - Statistical and Engineering Thermodynamics | 4 | 3 |
| MAJOR | CHEM 112-113 - (E) General and Analytical Chemistry /CHEM 112L-113L | 4.5 | 4.5 |
| COGNATE | EE 241/EE 241L - (EPW) Circuit Analysis | | 4 |
| COGNATE | EE 250/EE250L - Computational Tools for Physics and Engineering | 4 | |
| COGNATE | MATH 221 - Calculus II – MATH 222 - Calculus III or MATH 222 - Calculus III – MATH 341 - Differential Equations | 4 | 4 |
| GE PHIL | PHIL 120 - Introduction to Philosophy | 3 | |
| | | **19.5** | **15.5** |
| **Third Year** | | | |
| MAJOR | PHYS/BIOL/CHEM ELECT – Physics, Biology or Chemistry Elective | 3 | |
| MAJOR | CHEM 232/CHEM 232L (E) Organic Chemistry – CHEM 233/CHEM 233L (E) Organic Chemistry | 4.5 | 4.5 |
| GE T/RS | T/RS 121 - Theology I: Introduction to the Bible — T/RS 122 - Theology II: Introduction to Christian Theology | 3 | 3 |
| GE PHIL | PHIL 210 - Ethics | 3 | |
| GE PHIL or T/RS | PHIL ELECT - Philosophy Elective or T/RS ELECT Theology Elective | | 3 |
| GE S/BH | S/BH ELECT – Social/Behavioral Electives | 3 | 3 |
| GE HUMN | HUMN ELECT – Humanities Elective | | 3 |
| | | **16.5** | **16.5** |
| **Fourth Year** | | | |
| MAJOR | PHYS/BIOL/CHEM ELECT – Physics, Biology or Chemistry Electives[4] | 6 | 6 |

| | | | |
|---|---|---|---|
| GE HUMN | HUMN ELECT – Humanities Electives | 6 | 3 |
| GE ELECT | FREE ELECT – Free Electives | 3 | 6 |
| | | **15** | **15** |
| | | | **Total: 129 Credits** |

[1]*EP requirement is met through successful completion of BIOL 141L and BIOL 142L.*

[2]*Math placement may affect the order in which these classes are taken.*

[3]*The selection of a First Year Seminar is likely to fulfill requirements both for the First Year Seminar and a General Education Requirement. Thus, the First Year Seminar will not add to the total credits for the semester. Talk with your advisor if you have any questions.*

[4]*Recommended* PHYS 493 - PHYS 494.

# Computer Engineering, BS

The Computer Engineering curriculum prepares the undergraduate for both a professional career in Electrical and Computer Engineering and advanced studies in those fields. Our ABET accredited program provides each student with a uniquely transformative education that combines the latest in technology, procedures and practices of Computer Science, Electrical Engineering, and Computer Engineering with a firm foundation in basic science and mathematics. Therefore, they are able to function in today's technological environment and are prepared to understand the technologies that come in the future.

However, The University of Scranton Computer Engineering graduate also benefits from an education steeped in the Jesuit liberal arts tradition. So they are not only prepared for the technical challenges they will face throughout their professional careers, they are also ready to face the personal and ethical challenges of modern life.

The technical core of the program emphasizes theoretical and laboratory skills, hardware and software skills, simulation and design. The technical core of the program emphasizes theoretical and laboratory skills, hardware and software skills, simulation and design. Technical courses are taught by faculty from both Computer Science and Engineering, ensuring balanced coverage and integration of hardware and software while basic science courses are taken with faculty from Physics and Chemistry, ensuring the depth and breadth of the coverage of these topics. The design process is emphasized throughout all four years, and design projects are incorporated into all laboratory courses. The core of the sophomore and junior years include courses covering computer algorithms, digital system design, computer architecture, embedded systems, computer interfacing and programming, which provides the background for their senior year, which includes electives for additional depth and breadth to their professional development, as well as a two-semester design project.

The liberal arts core ensures our students have a background in the Social Sciences, the Humanities, Philosophy and Theology, while the Eloquentia Perfecta program provides them with the writing and oral communication skills needed by the Engineering Professional.

Career opportunities in Computer Engineering range from industrial automation, robotics, avionics and software engineering system design to neural networks and computational medicine.

## Computer Engineering Curriculum

| | ***Department and Number - Descriptive Title of Course*** | ***Fall Cr.*** | ***Spr. Cr.*** |
|---|---|---|---|
| **First Year** | | | |
| GE EP - GE WRTG | ENGR 150 - (FYOC, FYDT) Foundations of Physics and Engineering — WRTG 107 - (FYW) Composition | 3 | 3 |
| COGNATE | CMPS 134 - Computer Science I/ CMPS 134L - Computer Science I Lab — CMPS 144 - Computer Science II/ CMPS 144L - Computer Science II Lab | 4 | 4 |

| | | | |
|---|---|---|---|
| COGNATE | MATH 109 - (Q) Pre-Calculus Mathematics[1] **or** MATH 142 - (Q) Discrete Structures — MATH 114 - (Q) Calculus I | 4 | 4 |
| COGNATE | CHEM 112 (E) General and Analytical Chemistry | 3 | |
| COGNATE | PHYS 140/PHYS 140L - (E) Elements of Physics I | | 4 |
| GE HUMN | HUMN ELECT - Humanities Elective | | 3 |
| GE PHIL | PHIL 120 - Introduction to Philosophy | 3 | |
| GE FSEM | First Year Seminar[2] | | |
| | | **17** | **18** |
| **Second Year** | | | |
| MAJOR | E/CE 240 - Introduction to Computer Engineering/EE 240L - Introduction to Computer Engineering Lab — EE 241/EE 241L - (EPW) Circuit Analysis | 4 | 4 |
| MAJOR | PHYS 141/PHYS 141L - (E) Elements of Physics II | 4 | |
| COGNATE | MATH 221 - Calculus II — MATH 222 - Calculus III | 4 | 4 |
| COGNATE | CMPS 240 - Data Structures and Algorithms | 3 | |
| MAJOR | CMPS 250 - Machine Organization and Assembly Language Programming | | 3 |
| GE PHIL | PHIL 210 - Ethics | | 3 |
| GE HUMN | HUMN ELECT – Humanities Elective | | 3 |
| | | **15** | **17** |
| **Third Year** | | | |
| MAJOR | EE 343/EE 343L - Electronic Circuits I — EE 344/EE 344L - Electronic Circuits II | 4 | 4 |
| MAJOR | ENGR 350 - Applied and Engineering Mathematics | 3 | |
| MAJOR | EE 346 - Digital Signal Processing | 3 | |
| MAJOR | E/CE 340 - Digital Systems | | 3 |
| MAJOR/COGNATE | Technical Elective[3] **or** MATH 142 - (Q) Discrete Structures | | 3-4 |
| MAJOR | PHYS 270/PHYS 270L - (EPW: Lab only) Elements of Modern Physics | 4 | |
| GE S/BH | S/BH ELECT – Social/Behavioral Elective[3] | | 3 |
| GE T/RS | T/RS 121 - Theology I: Introduction to the Bible — T/RS 122 - Theology II: Introduction to Christian Theology | 3 | 3 |
| | | **17** | **16-17** |

| Fourth Year | | | |
|---|---|---|---|
| MAJOR | EE 449/EE 449L - (EPW lab only) Embedded Systems | 3 | |
| MAJOR | EE 450 - Control Systems — EE 454 - Robotics Design Project and Professional Practice | 3 | 3 |
| MAJOR | CMPS 374 - (EPW) Fundamentals of Software Engineering | | 3 |
| MAJOR | CMPS 352 - Operating Systems[4] — CMPS 344 - Programming Languages | 3 | 3 |
| S/BH ELECT | S/BH ELECT - Social/Behavioral Elective[5] | 3 | |
| GE PHIL or T/RS | PHIL ELECT - Philosophy Elective **or** T/RS ELECT - T/RS Elective | | 3 |
| GE HUMN | HUMN ELECT – Humanities Elective | 3 | 3 |
| | | **15** | **15** |
| | **Total: 130-131 Credits** | | |

[1]*Those students with a Math Placement PT score of 14 or higher will begin with MATH 142. Those students who do not begin with MATH 142 and who have Math Placement DAT score of 13 or higher will begin with MATH 109.*

[2] *The selection of a First Year Seminar is likely to fulfill requirements both for the First Year Seminar and a General Education Requirement. Thus, the First Year Seminar will not add to the total credits for the semester. Talk with your advisor if you have any questions.*

[3]*Technical elective in Engineering, Physics, and Mathematics, or Computer Science (suggested courses include: ENGR 252, EE 475, EE 451, PHYS 372, MATH 109 only if required by Math Placement Test Score, MATH 341, MATH 351, CMPS 350).*

[4]*Or technical elective in Engineering, Physics, Mathematics, or Computer Science (suggested courses include: ENGR 252, EE 475 ,EE 451, PHYS 372, MATH 341, MATH 351, CMPS 350).*

[5]*ECO 153 — ECO 154 is recommended by the department.*

## Computer Engineering, AS

The Associate of Science degree in career-related fields has been designed as the natural companion to the Bachelor of Science degrees in those majors.

## Associate in Science: Computer Engineering Curriculum

| | ***Department and Number Descriptive Title of Course*** | ***Fall Cr.*** | ***Spr. Cr.*** |
|---|---|---|---|
| **First Year** | | | |
| GE EP - GE WRTG | ENGR 150 - (FYOC, FYDT) Foundations of Physics and Engineering — WRTG 107 - (FYW) Composition | 3 | 3 |
| COGNATE | CMPS 134 - Computer Science I/CMPS 134L — CMPS 144 - Computer Science II/CMPS 144L | 4 | 4 |
| COGNATE | MATH 142 - (Q) Discrete Structures — MATH 109 - (Q) Pre-Calculus Mathematics or MATH 114 - (Q) Calculus I | 4 | 4 |

| | | | |
|---|---|---|---|
| COGNATE | PHYS 140/PHYS 140L - (E) Elements of Physics I | | 4 |
| GE S/BH | S/BH ELECT – Social/Behavioral Elective | 3 | |
| HUMN ELECT | HUMN ELECT – Humanities Electives | | 3 |
| GE PHIL | PHIL 120 - Introduction to Philosophy | 3 | |
| GE FSEM | First Year Seminar[1] | | |
| | | **17** | **18** |
| **Second Year** | | | |
| MAJOR | E/CE 240 - Introduction to Computer Engineering — EE 241/EE 241L - (EPW) Circuit Analysis | 3 | 4 |
| MAJOR | PHYS 141/PHYS 141L - (E) Elements of Physics II | 4 | |
| COGNATE | EE 240L - Introduction to Computer Engineering Lab | | 1 |
| COGNATE | MATH 114 (Q) Calculus I or MATH 221 Calculus II | 4 | |
| COGNATE | MATH 221 - Calculus II or MATH 222 - Calculus III | | 4 |
| COGNATE | CMPS 240 - Data Structures and Algorithms | 3 | |
| COGNATE | CMPS 250 - Machine Organization and Assembly Language Programming | | 3 |
| GE T/RS | T/RS 121 - Theology I: Introduction to the Bible | 3 | |
| HUMN ELECT | HUMN ELECT - Humanities Elective | 3 | |
| | | **17** | **15** |
| | **Total: 67 Credits** | | |

[1]The selection of a First Year Seminar is likely to fulfill requirements both for the First Year Seminar and a General Education Requirement. Thus, the First Year Seminar will not add to the total credits for the semester. Talk with your advisor if you have any questions.

# Electrical Engineering, BS

We live in a high-tech society, and Electrical Engineers are among the largest, most diverse and dynamic contributors to our technological advancements. Electrical Engineers apply the principles of science and mathematics to practical use in instrumentation and circuit design, microelectronics, signal processing, telecommunications, machine control, and power generation and distribution.

Engineering students at The University of Scranton receive the benefits of a liberal arts curriculum which focuses on writing, communication, and critical thinking. The technical core of the Electrical Engineering program emphasizes theoretical and laboratory skills, hardware and software skills, simulation and design. Upper division courses include circuit analysis, solid state devices, control systems, communications, digital signal processing, computer interfacing, and digital systems. Design projects support student learning throughout all four years. The Electrical Engineering program culminates in a yearlong capstone senior project where each student must design and implement an autonomous, multidisciplinary project that solves a current technological problem facing society incorporating the scientific, engineering, project management and ethical principles they have acquired during their undergraduate education.

Graduates of our Electrical Engineering program have challenging and rewarding careers in such diverse fields as biomedical instrumentation, semiconductor fabrication, power industries, pharmaceutical manufacturing, patent law, defense, and national security programs.

## Electrical Engineering Curriculum

| | *Department and Number - Descriptive Title of Course* | *Fall Cr.* | *Spr. Cr.* |
|---|---|---|---|
| **First Year** | | | |
| COGNATE | CHEM 112 - (E) General and Analytical Chemistry — PHYS 140/PHYS 140L - (E) Elements of Physics I | 3 | 4 |
| COGNATE | MATH 114 - (Q) Calculus I — MATH 221 - Calculus II[1] | 4 | 4 |
| GE WRTG | WRTG 107 - (FYW) Composition | 3 | |
| GE EP - COGNATE | ENGR 150 - (FYOC, FYDT) Foundations of Physics and Engineering — CMPS 134 - Computer Science I/ CMPS 134L - Computer Science I Lab | 3 | 4 |
| GE PHIL - GE T/RS | PHIL 120 - Introduction to Philosophy — T/RS 121 - Theology I: Introduction to the Bible | 3 | 3 |
| GE FSEM | First Year Seminar[2] | | |
| | | **16** | **15** |
| **Second Year** | | | |
| MAJOR | E/CE 240 - Introduction to Computer Engineering/EE 240L - Introduction to Computer Engineering Lab — EE 241/EE 241L - (EPW) Circuit Analysis | 4 | 4 |
| MAJOR | EE 250/EE250L - Computational Tools for Physics and Engineering | 4 | |
| COGNATE | ENGR 252 - Solid State Devices & Power Electronics | | 3 |
| COGNATE | PHYS 141/PHYS 141L - (E) Elements of Physics II | 4 | |
| COGNATE | MATH 222 - Calculus III — MATH 341 - Differential Equations | 4 | 4 |
| GE PHIL | PHIL 210 - Ethics | | 3 |
| GE HUMN | HUMN ELECT - Humanities Elective | | 3 |
| | | **16** | **17** |
| **Third Year** | | | |
| MAJOR | EE 343/EE 343L - Electronic Circuits I — EE 344/EE 344L - Electronic Circuits II | 4 | 4 |
| MAJOR | EE 346 - Digital Signal Processing — E/CE 340 - Digital Systems | 3 | 3 |
| COGNATE | PHYS 270/PHYS 270L - (EPW: Lab only) Elements of Modern Physics | 4 | |

| | | | |
|---|---|---|---|
| COGNATE | ENGR 350 - Applied and Engineering Mathematics | 3 | |
| COGNATE | COGNATE ELECT - Cognate Elective[3] | | 3 |
| GE T/RS | T/RS 122 - Theology II: Introduction to Christian Theology | | 3 |
| GE HUMN | HUMN ELECT - Humanities Electives | 3 | 3 |
| | | **17** | **16** |
| **Fourth Year** | | | |
| MAJOR | EE 449/EE 449L - (EPW lab only) Embedded Systems | 3 | |
| MAJOR | EE 450 - Control Systems | 3 | |
| MAJOR | EE 451 - Communication Systems | | 3 |
| MAJOR | EE 454 - Robotics Design Project and Professional Practice | | 3 |
| MAJOR | EE 447 - Electromagnetics I — EE 448 - Electromagnetics II/EE 448L - Electromagnetics Design Laboratory | 3 | 4 |
| GE HUMN | HUMN ELECT - Humanities Electives | 3 | |
| GE S/BH | S/BH ELECT - Social/Behavioral Electives[4] | 3 | 3 |
| GE PHIL or T/RS | PHIL ELECT - Philosophy Elective or T/RS - Theology Elective | | 3 |
| | | **15** | **16** |
| | **Total: 128 Credits** | | |

[1]*Math placement score may require additional Mathematics courses to be taken prior to MATH 114.*

[2]*The selection of a First Year Seminar is likely to fulfill requirements both for the First Year Seminar and a General Education Requirement. Thus, the First Year Seminar will not add to the total credits for the semester. Talk with your advisor if you have any questions.*

[3]*An advanced technical elective approved by the department. Electrical Engineering majors starting with MATH 109 due to placement test results will have MATH 109 count as their cognate elective.*

[4]*ECO 153 - ECO 154 is recommended by the department.*

## Electrical Engineering, AS

The Associate of Science degree in career-related fields has been designed as the natural companion to the Bachelor of Science degrees in those majors

## Associate in Science: Electrical Engineering Curriculum

| | *Department and Number Descriptive Title of Course* | *Fall Cr.* | *Spr. Cr.* |
|---|---|---|---|
| **First Year** | | | |
| GE EP - GE WRTG | ENGR 150 - (FYOC, FYDT) Foundations of Physics and Engineering — WRTG 107 - (FYW) Composition | 3 | 3 |
| MAJOR | ENGR 253L - Computer Aided Design (CAD) I — ENGR 254L - Computer Aided Design (CAD) II | 1 | 1 |
| COGNATE | CMPS 134 - Computer Science I/ CMPS 134L - Computer Science I Lab | 4 | |
| COGNATE | MATH 109 - (Q) Pre-Calculus Mathematics **or** MATH 114 - (Q) Calculus I | 4 | |
| COGNATE | MATH 114 - (Q) Calculus I **or** MATH 221 - Calculus II | | 4 |
| COGNATE | PHYS 140/PHYS 140L - (E) Elements of Physics I | | 4 |
| S/BH ELECT | S/BH ELECT — Social/Behavioral Elective | 3 | |
| HUMN ELECT | HUMN ELECT — Humanities Elective | | 3 |
| GE PHIL | PHIL 120 - Introduction to Philosophy | 3 | |
| GE FSEM | First Year Seminar[1] | | |
| | | **18** | **15** |
| **Second Year** | | | |
| MAJOR | E/CE 240 - Introduction to Computer Engineering — EE 241/EE 241L - (EPW) Circuit Analysis | 3 | 4 |
| COGNATE - MAJOR | PHYS 141/PHYS 141L - (E) Elements of Physics II — EE 240L - Introduction to Computer Engineering Lab | 4 | 1 |
| COGNATE | MATH 221 - Calculus II **or** MATH 222 - Calculus III | 4 | |
| COGNATE | MATH 222 - Calculus III **or** FREE ELECT - Free Elective | | 4-3 |
| MAJOR | ENGR 250 - Engineering Mechanics-Statics — ENGR 252 - Solid State Devices & Power Electronics | 3 | 3 |
| GE/TRS | T/RS 121 - Theology I: Introduction to the Bible | | 3 |
| HUMN ELECT | HUMN ELECT - Humanities Elective | 3 | |
| | | **17** | **14-15** |
| | **Total: 64-65 Credits** | | |

# Engineering Management, BS

The state of the business world today is such that a major portion of its administrative effort must be geared to the supervision of persons engaged in complex technological processes often involving applications of electronics. As a consequence, the ideal administrator is now one who is conversant with both good business practice and technological know-how. The Engineering

Management major provides a student with a program of carefully selected business and economics courses coupled with a series of coordinated physics and electrical engineering courses so as to provide preparation for an administrative career in a technical business enterprise. The program also provides sufficient preparation for further studies leading to the Master of Business Administration.

## Engineering Management Curriculum

| | *Department and Number - Descriptive Title of Course* | *Fall Cr.* | *Spr. Cr.* |
|---|---|---|---|
| **First Year** | | | |
| MAJOR | ECO 153 - (S) Principles of Microeconomics — ECO 154 - (S) Principles of Macroeconomics | 3 | 3 |
| COGNATE (GE QUAN) | MATH 109 - (Q) Pre-Calculus Mathematics[1] - MATH 114 - (Q) Calculus I or MATH 114 - (Q) Calculus I - MATH 221 - Calculus II | 4 | 4 |
| COGNATE (GE QUAN) | PHYS 140/PHYS 140L - (E) Elements of Physics I | | 4 |
| GE PHIL - GE WRTG | PHIL 120 - Introduction to Philosophy — WRTG 107 - (FYW) Composition | 3 | 3 |
| GE EP - GE T/RS | ENGR 150 - (FYOC, FYDT) Foundations of Physics and Engineering — T/RS 121 - Theology I: Introduction to the Bible | 3 | 3 |
| GE HUMN | HUMN ELECT - Humanities Elective | 3 | |
| GE FSEM | First Year Seminar[2] | | |
| | | **16** | **17** |
| **Second Year** | | | |
| MAJOR | E/CE 240 - Introduction to Computer Engineering | 3 | |
| COGNATE (GE QUAN) | PHYS 141/PHYS 141L - (E) Elements of Physics II | 4 | |
| MAJOR | ACC 253 - Financial Accounting — ACC 254 - Managerial Accounting | 3 | 3 |
| MAJOR | EM 243L - Digital System Design Laboratory | | 1 |
| COGNATE | EE 241/EE 241L - (EPW) Circuit Analysis | | 4 |
| COGNATE | MATH 221 - Calculus II - MATH 222 - Calculus III or MATH 222 - Calculus III - MATH 341 - Differential Equations | 4 | 4 |
| GE T/RS- GE PHIL | PHIL 210 - Ethics — T/RS 122 - Theology II: Introduction to Christian Theology | 3 | 3 |
| | | **17** | **15** |
| **Third Year** | | | |
| MAJOR | EE 343/EE 343L - Electronic Circuits I — EE 344/EE 344L - Electronic Circuits II | 4 | 4 |
| MAJOR | STAT 251 - (Q) Statistics for Business I — STAT 252 - (Q) Statistics for Business II | 3 | 3 |
| MAJOR | EM 351 - Principles of Management — FIN 251 - Introduction to Finance | 3 | 3 |

| | | | |
|---|---|---|---|
| MAJOR | OIM 351 - Introduction to Business Analytics — OIM 352 - Introduction to Operations Management | 3 | 3 |
| MAJOR | EM 462 - Project Management in Organizations | | 3 |
| COGNATE | PHYS 270 - Elements of Modern Physics | 3 | |
| | | **16** | **16** |
| **Fourth Year** | | | |
| MAJOR | MKT 351 - Introduction to Marketing | 3 | |
| MAJOR | EE 449/EE 449L - (EPW lab only) Embedded Systems | 3 | |
| MAJOR | EM 455 - Business Policy & Strategy | | 3 |
| GE PHIL - GE T/RS | PHIL ELECT - Philosophy Elective or T/RS ELECT - Theology Elective | | 3 |
| GE HUMN | HUMN ELECT - Humanities Electives | 3 | 6 |
| GE ELECT | FREE ELECT - Free Electives[3] | 6 | 3 |
| | | **15** | **15** |
| | **Total: 127 Credits** | | |

[1]*Math Placement score may require additional Mathematics courses to be taken prior to MATH 109.*

[2]*The selection of a First Year Seminar is likely to fulfill requirements both for the First Year Seminar and a General Education Requirement. Thus, the First Year Seminar will not add to the total credits for the semester. Talk with your advisor if you have any questions.*

[3]*ENGR 252 - Solid State Devices & Power Electronics, MGT 484 Special Topics: Negotiations, and/or* MGT 471 - Group Dynamics are recommended by department.

# Mechanical Engineering, BS

Mechanical engineering is the discipline that applies the principles of engineering, physics, and materials science for the design, analysis, manufacturing, and maintenance of mechanical systems. It is the branch of engineering that involves the design, production, and operation of machinery. It is one of the oldest and broadest of the engineering disciplines.

## Mechanical Engineering Curriculum

| | ***Department and Number - Descriptive Title of Course*** | ***Fall Cr.*** | ***Spr. Cr.*** |
|---|---|---|---|
| **First Year** | | | |
| COGNATE | CHEM 112 - (E) General and Analytical Chemistry — PHYS 140/PHYS 140L - (E) Elements of Physics I | 3 | 4 |
| COGNATE | MATH 114 - (Q) Calculus I[1] — MATH 221 - Calculus II | 4 | 4 |
| GE WRTG | WRTG 107 - (FYW) Composition | 3 | |
| MAJOR | ENGR 253L - Computer Aided Design (CAD) I — | 1 | 1 |

| | | | |
|---|---|---|---|
| GE EP MAJOR - COGNATE | ENGR 150 - (FYOC, FYDT) Foundations of Physics and Engineering — CMPS 134 - Computer Science I/CMPS 134L | 3 | 4 |
| GE PHIL - GE T/RS | PHIL 120 - Introduction to Philosophy — T/RS 121 - Theology I: Introduction to the Bible | 3 | 3 |
| GE FSEM | First Year Seminar[2] | | |
| | | **17** | **16** |
| **Second Year** | | | |
| MAJOR | ME 240 - Introduction to Mechanical Engineering | 3 | |
| COGNATE | EE 250/EE250L - Computational Tools for Physics and Engineering — EE 241/EE 241L - (EPW) Circuit Analysis | 4 | 4 |
| MAJOR | ENGR 250 - Engineering Mechanics-Statics — ME 260 - Strength of Materials | 3 | 3 |
| COGNATE | PHYS 141/PHYS 141L - (E) Elements of Physics II —PHYS 142 - Elements of Physics III | 4 | 3 |
| COGNATE | MATH 222 - Calculus III — MATH 341 - Differential Equations | 4 | 4 |
| GE HUMN | HUMN ELECT - Humanities Elective | | 3 |
| | | **18** | **17** |
| **Third Year** | | | |
| MAJOR | ME 370/ ME 370L - Manufacturing Processes Lab | 4 | |
| MAJOR - COGNATE | ENGR 251 - Engineering Mechanics-Dynamics — PHYS 352 - Statistical and Engineering Thermodynamics | 3 | 3 |
| MAJOR | ME 270 - Materials Engineering — ME 360L - Measurement & Instrumentation with Lab | 3 | 3 |
| COGNATE | ENGR 350 - Applied and Engineering Mathematics | 3 | |
| GE T/RS | T/RS 121 - Theology I: Introduction to the Bible | | 3 |
| GE S/BH | ECO 153 - (S) Principles of Microeconomics — ECO 154 - (S) Principles of Macroeconomics | 3 | 3 |
| GE PHIL | PHIL 210 - Ethics | | 3 |
| | | **16** | **15** |
| **Fourth Year** | | | |
| MAJOR | ME 460 - Senior Design I — ME 461 - Senior Design II | 3 | 3 |
| MAJOR | EE 450 - Control Systems/EE 450L — ME 470 - Vibration Engineering | 4 | 3 |
| MAJOR | ME 353 - Fluid Mechanics — ME 440 - Heat Transfer | 3 | 3 |
| MAJOR | ME 430 - Engineering Economics | | 3 |
| GE HUMN | HUMN ELECT - Humanities Elective | 3 | |

| | | | |
|---|---|---|---|
| GE HUMN | HUMN ELECT - Humanities Electives | 3 | 3 |
| GE PHIL or T/RS | PHIL ELECT - Philosophy Elective or T/RS – Theology | | 3 |
| | | **16** | **18** |
| | **Total: 133 Credits** | | |

[1]*Math placement score may require additional Mathematics courses to be taken prior to MATH 114.*

[2]*The selection of a First Year Seminar is likely to fulfill requirements both for the First Year Seminar and a General Education Requirement. Thus, the First Year Seminar will not add to the total credits for the semester. Talk with your advisor if you have any questions.*

# Physics, BS

Physics is the study of our universe, from atoms to galaxies, from quarks to baseballs. Physics covers fields as diverse as astrophysics, which tells us about the structure of stars, to condensed matter physics, which tells us how silicon chips work. Students at our department get a firm education in the fundamentals of physics, and some gain research experience in cutting edge labs across the nation in summer REU programs. The faculty here covers a diverse range of expertise: acoustics, optics, solid state experiment and theory, and nuclear theory.

Our physics degree has prepared students for a dazzling array of careers, from Ph.D research, to management in the hi-tech manufacturing, from museum curators to corporate executives to university professors, the list is long. Historically, our graduates in their first years in the workforce are the highest paid compared to their peers in any other department in the University.

The mission of the physics program is to develop knowledgeable and competent physicists who exemplify the humanistic, Catholic and Jesuit traditions of commitment to social justice, service to others, life-long learning, ethical and moral responsibility, and concern for the environment. The integration of The University of Scranton core curriculum is an essential part of the physics curriculum. The University core curriculum includes a structured program in theology, philosophy, ethics, and written and oral communication. Roughly half of the credits in the physics program is devoted to physics topics.

We have made a department that is a pleasant and productive place for students and faculty.

## Physics Curriculum

| | ***Department and Number - Descriptive Title of Course*** | ***Fall Cr.*** | ***Spr. Cr.*** |
|---|---|---|---|
| **First Year** | | | |
| MAJOR | PHYS 140/PHYS 140L - (E) Elements of Physics I — PHYS 141/PHYS 141L - (E) Elements of Physics II | 4 | 4 |
| COGNATE | MATH 109 - (Q) Pre-Calculus Mathematics[1]— MATH 114 - (Q) Calculus I **or** MATH 114 - (Q) Calculus I – MATH 221 - Calculus II[2] | 4 | 4 |
| GE WRTG - GE HUMN | WRTG 107 - (FYW) Composition — HUMN ELECT - Humanities Elective | 3 | 3 |
| GE EP | PHYS 150 - (FYOC,FYDT) Foundations of Physics and Engineering | 3 | |
| GE PHIL - GE T/RS | PHIL 120 - Introduction to Philosophy — T/RS 121 - Theology I: Introduction to the Bible | 3 | 3 |
| GE FSEM | First Year Seminar[3] | | |

| | | | |
|---|---|---|---|
| | | **17** | **14** |
| **Second Year** | | | |
| MAJOR | PHYS 270/PHYS 270L - (EPW: Lab only) Elements of Modern Physics — PHYS 352 - Statistical and Engineering Thermodynamics | 4 | 3 |
| COGNATE | EE 250/EE250L - Computational Tools for Physics and Engineering — PHYS 260L - Electronics for Physicists | 4 | 1 |
| COGNATE | MATH 221 - Calculus II — MATH 222 - Calculus III **or** MATH 222 - Calculus III — MATH 341 - Differential Equations | 4 | 4 |
| GE S/BH | S/BH ELECT - Social/Behavioral Electives | 3 | 3 |
| GE HUMN | HUMN ELECT - Humanities Elective | | 3 |
| GE PHIL | PHIL 210 - Ethics | | 3 |
| | | **15** | **17** |
| **Third Year** | | | |
| MAJOR | PHYS 447 - Electromagnetics I — PHYS 448/PHYS 448L - Electromagnetics II | 3 | 4 |
| MAJOR | PHYS 371 - Advanced Mechanics — PHYS 372 - Quantum Mechanics | 3 | 3 |
| MAJOR | PHYS 350 - Applied and Engineering Mathematics — PHYS 333 - Experimental Methods in Physics | 3 | 3 |
| COGNATE/MAJOR | MATH 341 - Differential Equations **or** ELECT - Elective | 3-4 | |
| GE T/RS | T/RS 122 - Theology II: Introduction to Christian Theology | | 3 |
| GE PHIL or T/RS | PHIL ELECT - Philosophy Elective or T/RS ELECT–Theology Elective | | 3 |
| GE HUMN | HUMN ELECT - Humanities Electives | 3 | |
| | | **15-16** | **16** |
| **Fourth Year** | | | |
| MAJOR | PHYS 493 - Undergraduate Physics Research I — PHYS 494 - (EPW) Undergraduate Physics Research II | 1 | 1 |
| MAJOR | PHYS/EE - Physics/EE Electives | | 6 |
| MAJOR | PHYS 473 - Optics/PHYS 473L | 4 | |
| COGNATE | COGNATE ELECT - Cognate Elective | 3 | |
| GE HUMN | HUMN ELECT - Humanities Electives | 3 | 3 |
| GE ELECT | FREE ELECT - Free Electives | 6 | 6 |

| | | | |
|---|---|---|---|
| | | **17** | **16** |
| | **Total: 127-128 Credits** | | |

*[1]Physics majors starting with MATH 109 due to placement test results take one less Physics elective. Math placement score may require additional Mathematics courses to be taken prior to MATH 109.*

*[2]Math Placement may affect the order in which these classes are taken.*

*[3] The selection of a First Year Seminar is likely to fulfill requirements both for the First Year Seminar and a General Education Requirement. Thus, the First Year Seminar will not add to the total credits for the semester. Talk with your advisor if you have any questions.*

## Physics Minor

21 credits, including PHYS 140/PHYS 140L, PHYS 141/PHYS 141L, PHYS 270/PHYS 270L with lab, PHYS 352, and at least two courses of PHYS 300-level or higher, or Engineering courses with permission of department chair.

## Pre-Engineering

There are many different fields of engineering, including electrical engineering, mechanical engineering, chemical engineering, and civil engineering. Programs in these engineering disciplines require a relatively standard set of mathematics, physics, computer programming, and writing courses during the first two years of study. The pre-engineering program is a one- or two-year, non-degree program specifically designed to prepare students to transfer into another university offering their desired field of study, or to remain here at The University of Scranton if they choose to major in Electrical Engineering, Computer Engineering or Mechanical Engineering.

Students enrolled in the Pre-Engineering program at The University of Scranton receive a solid technical foundation in math and science, yet also receive the benefits of a liberal arts curriculum which emphasizes critical thinking and communication skills. Additionally, students also have the advantage of taking important math and science courses in small classes taught by dedicated faculty.

Since the Pre-Engineering curriculum does not lead to a baccalaureate degree it is not rigid. It is a suggested program of study in which students work with their pre-engineering advisor to tailor the curriculum to specific interests and goals. Students should consult the course catalog and curriculum of the engineering school to which they intend to transfer. This is not an automatic transfer program; students must apply for admission. The university to which one transfers makes all final decisions on which courses will count toward a degree.

Most colleges of engineering would recommend the following sequence of courses:

## Pre-Engineering Transfer Program Curriculum

| | ***Department and Number - Descriptive Title of Course*** | **Fall Cr.** | **Spr. Cr.** |
|---|---|---|---|
| **First Year** | | | |
| COGNATE (GE NSCI) | PHYS 140/PHYS 140L - (E) Elements of Physics I – PHYS 141/PHYS 141L - (E) Elements of Physics II | 4 | 4 |
| COGNATE (GE QUAN) | MATH 114 - (Q) Calculus I – MATH 221 Calculus II | 4 | 4 |
| COGNATE | CHEM 112-113 - (E) General and Analytical Chemistry/CHEM 112L-113L | 4.5 | 4.5 |
| GE FSEM | First Year Seminar[1] | | |
| GE PHIL | PHIL 120 - Introduction to Philosophy | | 3 |

| | | | |
|---|---|---|---|
| GE T/RS | T/RS 121 - Theology I: Introduction to the Bible | | 3 |
| GE WRTG | WRTG 107 - (FYW) Composition | 3 | |
| | | **15.5** | **18.5** |
| **Second Year** | | | |
| COGNATE | COGNATE ELECTIVES[2] | 3-4 | 6-7 |
| COGNATE | MATH 222 - Calculus III – MATH 341 - Differential Equations | 4 | 4 |
| COGNATE | CMPS 134 - Computer Science I/ CMPS 134L - Computer Science I Lab | 4 | |
| MAJOR | ENGR 253L - An Introduction to Computer-Aided Design – ENGR 254L - 3D Computer-aided Design | 1 | 1 |
| GE ELECTIVE | HUMANITIES/S/BH Electives | 6 | 6 |
| | | **18-19** | **17-18** |
| | **Total: 70 - 71 Credits** | | |

[1]*The selection of a First Year Seminar is likely to fulfill requirements both for the First Year Seminar and a General Education Requirement. Thus, the First Year Seminar will not add to the total credits for the semester. Talk with your advisor if you have any questions.*

[2] *Selected in consultation with pre-engineering advisor. Suggested courses include PHYS 270/PHYS 270L - (EPW: Lab only) Elements of Modern Physics, ENGR 250 - Engineering Mechanics-Statics, ENGR 252 - Solid State Devices & Power Electronics,* EE 241/EE 241L - (EPW) Circuit Analysis, *E/CE 240 - Introduction to Computer Engineering, ENGR 352 - Statistical and Engineering Thermodynamics, CHEM 232 - (E) Organic Chemistry/CHEM 232L - Organic Chemistry Laboratory, CHEM 233 - (E) Organic Chemistry/CHEM 233L - Organic Chemistry Laboratory, CMPS 144 - Computer Science II,* MATH 351 - Linear Algebra.

*For more information about the Physics and Engineering departments, visit its website.*

# Political Science

## Faculty

Michael E. Allison, Ph.D., *Chair*

Jean Wahl Harris, Ph.D.

JoyAnna S. Hopper, Ph.D.

Daniel R. Sweeney, S.J., Ph.D.

Gretchen J. Van Dyke, Ph.D.

## Overview

Political science explores how governments are structured and how they resolve societal conflicts and provide for the public good. Political science also explores the roles that people can play in their governments and the actions people take to influence public policy to serve them and their communities.

Graduates have career options in fields as varied as government, nonprofit management, international affairs, campaigns, special and public interest lobbying, journalism, law, and teaching. With its mix of theoretical and empirical approaches to studying politics, the field of political science prepares women and men for fulfilling careers, lifelong learning, and active and effective citizenship.

The Bachelor of Science program in Political Science imparts to students an understanding of:

1. The scope and purpose of governments in civil society;

2. The origins, goals, and limitations of democratic governments;
3. The structure and functions of the institutions of American governments;
4. The similarities and differences in the structures and functions of the governments of other countries;
5. The nature of the relationships among the many governments in the international community; and
6. The rights and responsibilities of citizens in a variety of governmental systems and as members of the global community.

The Political Science Department offers courses in the major subfields of political science: political institutions, political theory, international relations, comparative politics, public policy, and political science research methods. In addition to the major in Political Science, the department offers a track in Public Administration and Public Affairs and a minor in Political Science.

Students in the major must take PS 120, PS 121, PS 212, PS 217, PS 210, and either PS 313 or PS 314. The remaining 18 Political Science credits required for the major are selected by the student.

## Public Administration and Public Affairs (PAPA) Track

For more information, visit Public Administration and Public Affairs (PAPA track)

## Affiliated Programs

For information on agreements with Villanova University School of Law, Duquesne University School of Law, and Boston College Law School, please visit our Law School Affiliation Agreements page.

# Political Science, BS

## Political Science Curriculum

| | *Department and Number - Descriptive Title of Course* | *Fall Cr.* | *Spr. Cr.* |
|---|---|---|---|
| **First Year** | | | |
| MAJOR | PS 120 - (S) U.S. Politics: Principles & Citizenship – PS 121 - (S) U.S. Politics: Institutions & Policy | 3 | 3 |
| COGNATE | Choose one of the following sequences: HIST 110 and HIST 111; HIST 120 and HIST 121; HIST 125 and HIST 126; HIST 130 and HIST 131; HIST 132 and HIST 133; or HIST 238 and HIST 239 | 3 | 3 |
| GE ELECT | ELECT - Free Electives[1] | | 6 |
| GE EP | PS 110 - (FYOC,FYDT) Scranton and the World[2] | 3 | |
| GE WRTG | WRTG 107 - (FYW) Composition | 3 | |
| GE T/RS–PHIL | T/RS 121 - Theology I: Introduction to the Bible – PHIL 120 - Introduction to Philosophy | 3 | 3 |
| GE FSEM | First Year Seminar[*] | | |
| | | **15** | **15** |
| **Second Year** | | | |
| MAJOR | PS 212 - (S) International Relations – PS 217 - Comparative Government | 3 | 3 |

| | | | |
|---|---|---|---|
| MAJOR | PS 210 - (Q,EPW) Political Science Research | 3 | |
| GE ELECT | FREE ELECT - Free Elective[1] | 3 | 6 |
| GE HUMN | HUMN ELECT - Humanities Electives | 3 | 3 |
| GE PHIL–T/RS | PHIL 210 - Ethics–T/RS 122 - Theology II: Introduction to Christian Theology | 3 | 3 |
| | | **15** | **15** |
| **Third Year** | | | |
| MAJOR | PS 313 - (D) Classical Political Ideas[3] OR PS 314 - (D) Modern Political Ideas[3] | 3 | |
| MAJOR | PS ELECT - Political Science Electives | | 6 |
| GE NSCI | NSCI ELECT - Natural Science Electives | 3 | 3 |
| GE PHIL or T/RS | PHIL ELECT- Philosophy Elective or T/RS ELECT - T/RS Elective | 3 | |
| GE ELECT | FREE ELECT - Free Electives[1] | 6 | 6 |
| | | **15** | **15** |
| **Fourth Year** | | | |
| MAJOR | PS ELECT - Political Science Electives | 6 | 6 |
| GE ELECT | FREE ELECT - Free Electives[1] | 9 | 9 |
| | | **15** | **15** |
| | | | **Total: 120 Credits** |

*[1]The department strongly recommends a modern foreign language, especially for those students interested in international politics. Consult with an advisor in the Advising Center if you have any questions.*

*[2]Political Science recommends that students enroll in PS 110 - (FYOC,FYDT) Scranton and the World in order to satisfy First Year Oral Communication and First Year Digital Technology requirements. Consult with an advisor in the Advising Center if you have any questions.*

*[3]Political Science majors are required to take either PS 313 - (D) Classical Political Ideas or PS 314 - (D) Modern Political Ideas.*

*[*]The selection of a First Year Seminar is likely to fulfill requirements both for the First Year Seminar and a General Education Requirement. Thus, the First Year Seminar will not add to the total credits for the semester. Talk with an advisor in the Advising Center if you have any questions.*

## Public Administration and Public Affairs (PAPA track)

Political Science majors may concentrate in Public Administration and Public Affairs (PAPA track). This track is designed for students who may seek a career in government service at the federal, state, or local level. It develops analytic and quantitative skills, while providing substantive knowledge of a range of public-policy problems, and the management systems designed to implement policy decisions.

### Students in this track complete the courses required for the Political Science major:

- PS 120 - (S) U.S. Politics: Principles & Citizenship

- PS 121 - (S) U.S. Politics: Institutions & Policy
- PS 212 - (S) International Relations
- PS 217 - Comparative Government
- PS 210 - (Q,EPW) Political Science Research

**and either**

- PS 313 - (D) Classical Political Ideas or PS 314 - (D) Modern Political Ideas

**as well as**

- PS 135 - (S) State and Local Government
- PS 232 - Public Administration
- PS 480 - Political Science Internship I

**For their remaining Political Science electives, students choose four courses from the following:**

- PS 216 - (D,S) Women's Rights and Status
- PS 227 - (D,S) Women, Authority and Power
- PS 230 - (S) Environmental Laws and Regulations
- PS 231 - (S) Environmental Policy Process
- PS 317 - Parties, Elections, and Interest Groups
- PS 319 - (EPW) U.S. Foreign Policy Process
- PS 322 - Public Personnel
- PS 325 - Politics of the Budgetary Process
- PS 327 - U.S. Congress
- PS 329 - The American Presidency

**Students in this track would complete their cognate in one of two ways.**

## Option One:

**Students Complete**:

- HIST 110 - (CH) History of the United States to 1877 - HIST 111 - (CH) History of the United States from Reconstruction to the Present
- HIST 120 - (CH) Europe: 1500 to the Present - HIST 121 - (CH) Europe: 1815 to Present
- ECO 153 - (S) Principles of Microeconomics
- ECO 154 - (S) Principles of Macroeconomics
- ACC 253 - Financial Accounting
- ACC 254 - Managerial Accounting

## Option Two:

Students complete a minor, concentration, or another special program in consultation with Dr. Harris, the track advisor.

## Political Science Minor

To minor in Political Science, a student must take a minimum of 18 credits in Political Science, including PS 120 - (S) U.S. Politics: Principles & Citizenship – PS 121 - (S) U.S. Politics: Institutions & Policy.

# Psychology

## Faculty

John C. Norcross, Ph.D., *Chair*

Bryan R. Burnham, Ph.D.

J. Timothy Cannon, Ph.D.

Emily J. Hopkins, Ph.D.

Christie P. Karpiak, Ph.D

Gail N. Kemp, Ph.D.

Barry X. Kuhle, Ph.D.

Jessica M. Nolan, Ph.D.

Patrick T. Orr, Ph.D.

Joshua J. Reynolds, Ph.D.

Carole S. Slotterback, Ph.D.

Jill A. Warker, Ph.D.

## Overview

Psychology provides a unique educational experience of quality, breadth, and flexibility. Our curriculum has been carefully designed to give students a balanced education in the discipline and the widest range of career options, from baccalaureate positions to graduate training in prestigious universities. According to an independent study, the number of our University's graduates who have earned doctorates in psychology places us in the top 10% of comparable institutions nationally.

Psychology majors are required to take PSYC 110, PSYC 211, PSYC 212, PSYC 390 (junior year), and PSYC 490-PSYC 491 (senior year). Majors also take a minimum of five courses from the following list ("Core 8") with at least one course in each group: Physiological Processes (PSYC 230, PSYC 231), Learning Processes (PSYC 234, PSYC 235), Social-Developmental Processes (PSYC 220, PSYC 226), and Individual Processes (PSYC 224, PSYC 225). Students are free to choose from any of these or the remaining Psychology courses to fulfill the additional major requirements. Students are encouraged to serve as Teaching Assistants and to complete Field Experience (PSYC 480 or 481) and Undergraduate Research (PSYC 493 and 494) in their junior or senior year.

The Psychology Department helps students tailor their programs to their own interests and goals. For example, psychology majors are regularly involved in honors programs, pre-law, and study abroad. Students interested in marketing, personnel, or industrial-organizational psychology may elect a business minor and recommended psychology courses. Students interested in criminal justice and counseling can minor or double major in those disciplines. Interdisciplinary programs, such as the Lifespan Development Concentration and the Neuroscience, BS, are codirected by psychology faculty. Please visit the Psychology homepage (www.scranton.edu/academics/cas/psychology/) for additional information and student success stories.

To avoid duplication of course content, Psychology majors may not register for the following courses: CHS 242 - Counseling Theories; CHS 293 - (EPW) Research Methods in Counseling and Human Services; and CHS 323 - Psychiatric Rehabilitation. Psychology majors declaring a minor or a second major in Human Services should consult their advisors and the chair of Human Services with regard to these course restrictions.

## Affiliated Programs

The Lifespan Development Concentration is affiliated and coordinated by the Department of Psychology.

The Neuroscience Program is codirected by the Psychology Department and the Biology Department.

The Environmental Studies Concentration is affiliated with and coordinated by the Department of Psychology.

## Course Information

Courses for **Psychology** are listed under the prefix PSYC; closely related courses are listed under NEUR and HD. For more information on these courses, visit our Psychology Department Courses page. For more information about the Psychology Department, visit its website.

# Psychology, BS

## Psychology Curriculum

| | *Department and Number - Descriptive Title of Course* | *Fall Cr.* | *Spr. Cr.* |
|---|---|---|---|
| **First Year** | | | |
| MAJOR - ELECT | PSYC 110 - (S) Fundamentals of Psychology – MAJOR ELECT - Psychology Elective (from the Core 8) | 3 | 3 |
| GE EP | PSYC 140 - (FYOC,FYDT) Current Topics in Psychological Science* | 3 | |
| GE QUAN | MATH - Mathematics Elective[1] | 3 | |
| GE S/BH | SOC 110 - (S) Introduction to Sociology[2] | | 3 |
| GE WRTG | WRTG 107 - (FYW) Composition | | 3 |
| GE HUMN | HUMN ELECT - Humanities Elective | | 3 |
| GE PHIL | PHIL 120 - Introduction to Philosophy – PHIL 210 - Ethics | 3 | 3 |
| GE FSEM | First Year Seminar[3] | | |
| | | **12** | **15** |
| **Second Year** | | | |
| MAJOR | PSYC 211 - Research Methods and Statistical Analysis I – PSYC 212 - (EPW) Research Methods and Statistical Analysis II | 4 | 4 |
| MAJOR | MAJOR ELECT - Psychology Electives | 3 | 3 |
| GE ELECT | FREE ELECT - Free Elective[5] | | 3 |
| GE NSCI | NSCI ELECT - Natural Science Electives[4] | 3 | 3 |
| GE S/BH | S/BH ELECT - Social/Behavior Science Elective | 3 | |
| GE HUMN | HUMN ELECT - Humanities Elective | 3 | |
| | | **16** | **13** |
| **Third Year** | | | |
| MAJOR | MAJOR ELECT - Psychology Electives | 6 | 9 |
| MAJOR | PSYC 390 - Career Development in Psychology | 1 | |
| GE ELECT | FREE ELECT- Free Elective[5] | 3 | |
| GE HUMN | HUMN ELECT - Humanities Electives | 3 | 3 |

| | | | |
|---|---|---|---|
| GE T/RS | T/RS 121 - Theology I: Introduction to the Bible – T/RS 122 - Theology II: Introduction to Christian Theology | 3 | 3 |
| | | **16** | **15** |
| **Fourth Year** | | | |
| MAJOR | MAJOR ELECTIVE - Psychology Elective | 3 | |
| MAJOR | PSYC 490 - History and Literature of Psychology I – PSYC 491 - (EPW) History and Literature of Psychology II | 1.5 | 1.5 |
| GE PHIL or T/RS | PHIL ELECT- Philosophy or T/RS ELECT - Theology Elective | 3 | |
| GE ELECT | FREE ELECT - Free Electives[5] | 9 | 15 |
| | | **16.5** | **16.5** |
| | | | **Total: 120 Credits** |

[1]*MATH 109*, *MATH 106*, *or MATH 114*.

[2] *The Department strongly recommends SOC 110.*

[3]*The selection of a First Year Seminar is likely to fulfill requirements for both the First Year Seminar and a General Education Requirement. Thus, the First Year Seminar will probably not add to the total credits for the semester. Talk with your advisor if you have any questions.*

[4] *One 3- or 4-credit NSCI Biology course and one additional 3- or 4-credit NSCI BIOL, CHEM or PHYS course.*

[5] *No more than 15 credits of Psychology can be placed in GE electives.*

**Or another EP course.*

## Psychology Minor

The student must take18 credits, consisting of

- PSYC 110 - (S) Fundamentals of Psychology
- PSYC 210 - (Q) Statistics in the Behavioral Sciences
- PSYC 330 - Research Methods in the Behavioral Sciences

and one course from three of the following four groups:

### Physiological Processes

- PSYC 230 - Sensation and Perception
- PSYC 231 - (E) Behavioral Neuroscience

### Learning Processes

- PSYC 234 - (S) Cognitive Psychology
- PSYC 235 - Learning and Behavior

### Social-Development Processes

- PSYC 220 - (S) Social Psychology
- PSYC 226 - (S) Lifespan Development: Cognitive and Biological

### Individual Processes

- PSYC 224 - (S) Personality and Individual Differences
- PSYC 225 - (S) Abnormal Psychology

An equivalent statistics course may be substituted for PSYC 210 - (Q) Statistics in the Behavioral Sciences and an equivalent research methods course may be substituted for PSYC 330 - Research Methods in the Behavioral Sciences. Contact the Department Chair for a list of these courses. Acceptable course substitutions for PSYC 210 must focus on inferential statistics. EDUC 120 cannot be used for this minor. Any substituted course must then be replaced with a 3-credit Psychology course; that is the PSYC minor requires 18 credits of coursework in psychology, not substituted courses. PSYC 211 or PSYC 212 for majors can be substituted for PSYC 210 or PSYC 330 for minors.

## Integrated Data Analysis Concentration

The Integrated Data Analysis Concentration provides students, in diverse majors, with the fundamentals to facilitate data analyses within traditional majors ranging from English to Neuroscience. A student is required to take 16 credits for the Integrated Data Analysis Concentration.

### *First Year*

CMPS 134 - Computer Science I and CMPS 134L - Computer Science I Lab

### *Second Year*

DS 201 - (Q) Introduction to Data Science

PHIL 214 - (P) Computers and Ethics

and one of the following:

PSYC 210 - (Q) Statistics in the Behavioral Sciences

PSYC 211 - Research Methods and Statistical Analysis I and PSYC 212 - (EPW) Research Methods and Statistical Analysis II

DS 210 - Mathematical Methods for Data Science

MATH 204 - (Q) Introduction to Statistics

MATH 310 - Applied Probability and Mathematical Statistics

STAT 251 - (Q) Statistics for Business I

BIOL 379 - Biostatistics

### *Third or Fourth Year*

Advanced Content Course - 3 credits for upper level content in the student's major or another program of study; 300 course number or above, as approved by Concentration Coordinator.

Capstone Experience - No credit requirement - In student's major or in another program of study.

## Lifespan Development Concentration

Carole S. Slotterback, Ph.D., Director

This program offers all students, especially those majoring in the behavioral and social sciences, the opportunity to develop a multidisciplinary focus in human development. The academic aims of the concentration are to provide an understanding of:

1. Both normal and exceptional development of humans as biological and psychological organisms;
2. The relationship between individuals and family/social environment; and
3. The means to enhance human development, including a field experience in a human-development agency.

The 30-credit Lifespan Development concentration is administered by an interdisciplinary board of faculty from the Psychology, Sociology, and Counseling and Human Services departments. Students interested in careers and graduate programs in human development should contact the director for more information on course choice and on integrating the concentration with various majors. Students who complete this concentration will have it noted on their transcripts. The Lifespan Development concentration requires the following

## 9 Courses Required

1. PSYC 226 - (S) Lifespan Development: Cognitive and Biological
2. PSYC 227 - (S) Lifespan Development: Social and Emotional
3. PSYC 225 - (S) Abnormal Psychology
4. One of the following courses:

   PSYC 360 - (EPW) Clinical Psychology

   CHS 242 - Counseling Theories

   SOC 115 - Introduction to Social Work

   HADM 110 - Introduction to Gerontology

   HADM 211 - (EPW) Health Administration

   OT 440 - Management and Supervision of Occupational Therapy Services

   NURS 472 - Advanced Nursing Concepts
5. One of the following in the Human Biology group:

   BIOL 100 - (E) Modern Concepts of Human Biology

   BIOL 104 - (E) Anatomy, Physiology and Health

   BIOL 110 - (E) Human Anatomy and Physiology + Lab

   BIOL 142 - (E) (FYOC, FYDT Lab only) General Biology

   BIOL 202 - (E) The ABC's of Genetics

   BIOL 205 - (E) Human Sexuality and Reproduction

   PSYC 231 - (E) Behavioral Neuroscience/ NEUR 231 - (E) Behavioral Neuroscience
6. One of the following in the Cultural Diversity group:

   CHS 333 - (D) Multiculturalism in Counseling and Human Services

   CHS 337 - (D) Counseling Girls and Women

   CHS 338 - Poverty, Homelessness and Social Justice

   CHS 339 - Counseling Boys and Men

   CHS 375 - Counseling Lesbian, Gay, Bisexual, Transgender, and Questioning Persons

   EDUC 142 - (D,S) Exceptional Lives

   EDUC 256 - (D) Family, School & Community Relations in a Diverse Society

   HADM 216 - Aging and the Community

   HADM 218 - Health and Aging

   GERO 220 - Crime and Aging

   HADM 232 - Aging and Death

   HADM 315 - (D) Cultural Diversity and Health Administration

   PSYC 238 - Exercise and Sport Psychology

   PSYC 325/ HD 325 - Abnormal Child Psychology

PSYC 364 - (D) Psychology of Diversity

SOC 210 - (EPW,D) Marriage and the Family

SOC 220 - (S,D) Social Stratification

SOC 224 - (S,D) Race and Ethnic Relations

SOC 234 - (S,D) Cultural Anthropology

SOC 315 - (D) Feminism and Social Change

7. & 8. Two of the following in the Applied Skills group:

CHS 241 - (D) Case Management and Interviewing

CHS 322 - Cognitive Disabilities

CHS 325 - Psychosocial Aspects of Disordered Eating

CHS 331 - Health and Behavior

CHS 334 - Marital and Family Counseling

CHS 341 - Group Dynamics

CHS 343 - Medical and Psychosocial Aspects of Disabilities

CHS 360 - Individual Assessment

CHS 421 - Addictions

CHS 422 - Substance-Abuse Education

CHS 423 - Issues in Substance Abuse

EDUC 222 - (S,EPW) Educational Psychology, PreK-4

EDUC 223 - (EPW) Educational Psychology, GR 4-12

EDUC 252 - Assessment & Evaluation in Early & Primary Education

NURS 373 - Nursing Care of the Childbearing Family

NURS 452 - Nursing Care of Children and Adolescents

PSYC 334 - Couple and Family Therapy

PSYC 335 - Psychological Testing

PSYC 361 - Cognitive Behavior Therapy

PSYC 362 - Child Clinical Psychology

PSYC 363 - Behavior Modification

SOC 328 - Child Welfare

9. One of the following in the Field Experience group:

PSYC 480 - Field Experience in Clinical Settings

PSYC 481 - Field Experience in Applied Psychology

CHS 380 - Internship in Counseling and Human Services

OT 361 - Occupational Therapy Practice II: Psychosocial Rehabilitation or OT 381 - Occupational Therapy Level I Clinical - II: Psychosocial Rehabilitation

CHS 441 - (EPW) Crisis Intervention

EDUC 223 - (EPW) Educational Psychology, GR 4-12

NURS 352-352L - Mental Health Nursing

SOC 480 Internship in Sociology

**Total of 27 credits**

# Sociology

## Faculty

Michael J. Jenkins, Ph.D., *Chair*

Sinchul Back, Ph.D.

Mehmet F. Bastug, Ph.D

Ismail Onat, Ph.D.

Meghan Ashlin Rich, Ph.D.

James C. Roberts, Ph.D

Jason A. Shrive, Esq.

Loreen Wolfer, Ph.D.

## Overview

Courses in Sociology are designed to meet the intellectual and career interests of students who are concerned about a variety of issues that are integral in our society including race, ethnicity, gender, age, education and social class. The program is designed to help the student interested in social work, human services, industrial organization, urban planning, etc., to attain a pre-professional orientation to these fields.

Students interested in **Applied Sociology and Research** are advised to include: SOC 220, SOC 224, SOC 317, and SOC 331; for **Social Services**, SOC 112, SOC 210, SOC 220, and SOC 317.

The Department of Sociology/Criminal Justice and Criminology also administers the Criminal Justice major and Legal Studies Track.

## *Sociology/Criminal Justice - Legal Studies Track*

For more information, visit Sociology/Criminal Justice - Legal Studies Track.

## *Applied Sociology Minor*

For more information, visit Applied Sociology Minor.

## *Sociology Minor*

For more information, visit Sociology Minor.

## *Criminology Minor*

For more information, visit Criminology Minor.

For information on the CAS/MBA Five-Year Program, visit our CAS/MBA Five-Year Program page.

## Course Information

Courses for **Sociology** are listed under the prefixes SOC and S/CJ. For more information on these courses, visit our Sociology Department Courses and Criminal Justice Courses pages. For more information and all courses offered, visit our Course Descriptions page.

# Sociology, BS

## Sociology Curriculum

| | *Department and Number - Descriptive Title of Course* | *Fall Cr.* | *Spr. Cr.* |
|---|---|---|---|
| **First Year** | | | |
| MAJOR | SOC 110 - (S) Introduction to Sociology | 3 | |
| MAJOR | SOC ELECT - Sociology Elective (100 or 200 level) | | 6 |
| COGNATE | PSYC 110 - (S) Fundamentals of Psychology | 3 | |
| EP FYDT - FYOC | Level I Digital Technology (FYDT) - Level I Oral Communication (FYOC) | 3 | |
| GE WRTG/EP FYW | WRTG 107 - (FYW) Composition | 3 | |
| GE PHIL–T/RS | PHIL 120 - Introduction to Philosophy – T/RS 121 - Theology I: Introduction to the Bible | 3 | 3 |
| GE HUMN | HUMN ELECT - Humanities Elective | | 3 |
| GE ELECT | FREE ELECT - Free Elective | | 3 |
| GE FSEM | First Year Seminar[4] | | |
| | | **15** | **15** |
| **Second Year** | | | |
| MAJOR | SOC 218 - Sociological Theory | 3 | |
| MAJOR | SOC ELECT - Sociology Elective (200 - 400 Level) | 3 | |
| MAJOR | SOC 220 (S,D) Social Stratification or SOC 224 (S,D) Race and Ethnic Relations | | 3 |
| COGNATE | CHS 241 (D) Case Management and Interviewing | | 3 |
| COGNATE | COGNATE ELECT - Social/Behavioral Science Elective[1, 3] | 3 | |
| GE PHIL–T/RS | PHIL 210 - Ethics – T/RS 122 - Theology II: Introduction to Christian Theology | 3 | 3 |
| GE HUMN | HUMN ELECT - Humanities Electives | 3 | 3 |
| GE QUAN | S/CJ 211 - (EPW,Q) Research Methods and Statistics for the Social Sciences/S/CJ 211L | | 4 |
| | | **15** | **16** |
| **Third Year** | | | |
| MAJOR | SOC ELECT - Sociology Electives (200 or 300 level) | 3 | 3 |

| | | | |
|---|---|---|---|
| COGNATE | COGNATE ELECT - Social/Behavioral Science Electives[1,3] | 3 | 3 |
| GE NSCI | NSCI ELECT - Natural Science Electives | 3 | 3 |
| GE PHIL-T/RS | PHIL ELECT - Philosophy Elective or T/RS ELECT - T/RS Elective | 3 | |
| GE HUMN | HUMN ELECT - Humanities Elective | | 3 |
| GE ELECT | FREE ELECT - Free Electives | 3 | 6 |
| | | **15** | **18** |
| **Fourth Year** | | | |
| MAJOR | SOC 317 (EPW,D) Family Issues and Social Policy OR SOC 331 (EPW) Urban Sociology | 3 | |
| MAJOR | SOC 382 - 383 - Independent Study in Sociology OR SOC 490 - Capstone Course in Sociology OR SOC 480 - 481 - Internship in Sociology[2] | | 3 |
| COGNATE | COGNATE ELECT - Behavioral Science Electives[1,3] | 3 | |
| GE ELECT | FREE ELECT - Free Electives | 9 | 9 |
| | | **15** | **12** |
| | | | **Total: 121 Credits** |

*[1] In the cognate Social Science electives, the department recommends a mix of Human Services, Criminal Justice, Political Science and Psychology electives, especially PSYC 224 - (S) Personality and Individual Differences.*

*[2]Department recommendation: The sociology internship may be taken in either the junior or senior year, or both (not to exceed a maximum of 6 credits of internship).*

*[3] Students in the five-year College of Arts and Sciences M.B.A. program should take the series of 1-credit M.B.A. prep courses here. Students considering this CAS/MBA program must take MATH 108 and any prerequisites before the last semester of the senior year.*

*[4] The selection of a First Year Seminar is likely to fulfill requirements both for the First Year Seminar and a General Education Requirement. Thus, the First Year Seminar will not add to the total credits for the semester. Talk with your advisor if you have any questions.*

## Approved courses from other curricula

Sociology majors may be advised to choose several courses taught in the Criminal Justice & Criminology sequence; courses so approved include:

- S/CJ 210 - (S) Law and Society
- S/CJ 213 - (S) Criminology
- S/CJ 214 - (S) Juvenile Delinquency
- S/CJ 218 - (S) The American Court System
- S/CJ 220 - American Corrections
- S/CJ 211 - (EPW,Q) Research Methods and Statistics for the Social Sciences
- S/CJ 224 - (S) Sociology of Deviance
- S/CJ 225 - White-Collar Crime

- S/CJ 227 - Organized Crime Patterns
- S/CJ 314 - The Bill of Rights and Criminal Justice
- S/CJ 316 - Principles of Evidence
- S/CJ 317 - Trial, Jury and Counsel
- S/CJ 318 - Civil Liability
- S/CJ 324 - Victimology
- S/CJ 350 - (S,D) Comparative Justice Systems

## Sociology, AS

The Associate of Science degree in career-related fields has been designed as the natural companion to the Bachelor of Science degrees in these majors.

## Associate in Science: Sociology Curriculum

| | ***Department and Number Descriptive Title of Course*** | ***Credits*** |
|---|---|---|
| **General Education** | | |
| GE NSCI | PHYS 107 - (E) "Hands-On" Physics[1] | 3 |
| GE QUAN | QUAN ELECT – Mathematics Elective | 3 |
| GE S/BH | PHYS 110 - Meteorology | 3 |
| GE S/BH | S/BH ELECT – Social/Behavioral Electives[2] | 6 |
| GE SPCH–WRTG | COMM 100 - (FYOC) Public Speaking – WRTG 107 - (FYW) Composition | 6 |
| GE C/IL | C/IL 102/102L - (FYDT) Computing and Information Literacy | 3 |
| GE HUMN | HUMN ELECT – Humanities Electives[3] | 9 |
| GE PHIL–T/RS | PHIL 120 - Introduction to Philosophy – T/RS 121 - Theology I: Introduction to the Bible | 6 |
| GE PHIL or T/RS | PHIL 210 - Ethics or T/RS 122 - Theology II: Introduction to Christian Theology | 3 |
| GE ELECT | FREE ELECT – Free Elective | 3 |
| | | |
| **Major/Cognate** | | |
| | SOC 110 - (S) Introduction to Sociology | 3 |
| | SOC 112 - (S) Social Problems | 3 |
| | S/CJ 212 - Research Methods for the Social Sciences | 3 |
| | SOC 331 - (EPW) Urban Sociology | 3 |

| | | |
|---|---|---|
| | SOC 218 - Sociological Theory | 3 |
| | SOC ELECT – Sociology Elective | 3 |
| | **Total: 63 Credits** | |

[1]*Recommended.*

[2] *CJ 110 or PS 121 recommended.*

[3] *This could also be used for writing-intensive and/or cultural-diversity credit.*

## Sociology/Criminal Justice - Legal Studies Track

These classes will give students a broad introduction to the legal profession and will prepare students for the law school experience.

- S/CJ 210 - (S) Law and Society
- S/CJ 218 - (S) The American Court System
- S/CJ 317 - Trial, Jury and Counsel
- S/CJ 314 - The Bill of Rights and Criminal Justice.

## Sociology Minor

The minor in Sociology requires 19 credits, including

- SOC 110 - (S) Introduction to Sociology
- SOC 218 - Sociological Theory
- S/CJ 211 - (EPW,Q) Research Methods and Statistics for the Social Sciences
- S/CJ 211L - Research Methods and Statistics for the Social Sciences Lab
- 1 SOC or S/CJ elective at the 100-200 level
- 1 SOC or S/CJ elective at the 200 level
  and
- 1 SOC or S/CJ elective at the 300 level are required.

## Applied Sociology Minor

The Applied Sociology Minor requires 19 credits. The required courses are:

- SOC 110 (S) Introduction to Sociology
- SOC 218 Sociological Theory
- S/CJ 211 - (EPW,Q) Research Methods and Statistics for the Social Sciences
- S/CJ 211L - Research Methods and Statistics for the Social Sciences Lab
- SOC 317 (EPW,D) Family Issues and Social Policy or SOC 331 (EPW) Urban Sociology
- SOC 480 - 481 Internship in Sociology
- 1 SOC or S/CJ elective

# Theology/Religious Studies

## Faculty

Maria Poggi Johnson, Ph.D., *Chair*

Michael G. Azar, Ph.D.

Patrick M. Clark, Ph.D.

Will T. Cohen, Ph.D.

Brigid C. Frein, Ph.D.

Christopher Haw, Ph.D.

Maria Poggi Johnson, Ph.D.

Joel B. Kemp, J.D., Ph.D.

Christian S. Krokus, Ph.D

Nathan S. Lefler, Ph.D.

Cyrus Olsen, Ph.D.

Charles R. Pinches, Ph.D.

Eric A. Plumer, Ph.D.

Marc B. Shapiro, Ph.D.

## Overview

As "faith seeking understanding," theology plays an essential role in the quest for God, wisdom, and human fulfillment. Catholic education recognizes that theology addresses certain basic human questions in ways that speak to the heart and mind as no other discipline can. Theology approaches such questions not in isolation, but as a partner in a living exchange between the Church and the diverse traditions of the world. Theology/Religious Studies courses seek to form conscience and character, helping students address contemporary questions of good and evil, freedom and truth, life and death. In addition to courses with a primarily Christian focus, the department offers courses in non-Christian religious traditions. The General Education requirement of 6 Theology credits for all students is fulfilled by T/RS 121-T/RS 122, a two-semester introductory sequence. These courses must be completed before students take upper-division courses in Theology.

## Affiliated Programs

There are several programs affiliated with the Department of Theology/Religious Studies, including the Catholic Studies Program, the Judaic Studies Concentration and the Peace and Justice Studies Concentration.

For information on the CAS/MBA Five-Year Program, visit our CAS/MBA Five-Year Program page.

## Course Information

Courses for **Theology/Religious Studies** are listed under the prefix T/RS. For more information, visit our Course Descriptions page.

For more information about the Theology/Religious Studies department, visit its website.

# Theology/Religious Studies, BA

The Bachelor of Arts degree in Theology/Religious Studies requires 30 credits in the major (including the two introductory courses). This allows ample room for a second major and/or minor or concentration in many fields. Theology majors must take at least four courses at the 300 or 400 level, including the Theology Capstone Seminar, T/RS 490. To ensure a well-rounded background in the discipline, each major must take at least one course from each of the categories listed below: While some courses are eligible to be counted in more than one category, they cannot double count. Instead, in consultation with their advisor, students should select in which category they wish them to be placed. Students may also request to customize their course selections in order to pursue specialized interests.

## Old Testament

- T/RS 210 - (P,D) Jews, Christians, and the Bible
- T/RS 241 - (P) Heroes and Villains of the Bible
- T/RS 310 - (P) The Heart of the Old Testament
- T/RS 311 - (P) Job and the Psalter

- T/RS 312 - (P) The Great Prophets
- T/RS 313 - (P,EPW) Faith and Justice in the Prophetic Tradition
- T/RS 440 - Introduction to Old Testament

## New Testament

- T/RS 314 - (P) Jesus in the Four Gospels
- T/RS 315 - (P.EPW) John's Gospel and Letters
- T/RS 317 - (P) Pauline Letters
- T/RS 318 - (P) The Apocalypse of St. John
- T/RS 441 - Inside the New Testament

## Historical/Systematic Theology

- T/RS 213 - (P) American Catholic Thought
- T/RS 215 - (P) The History of Christian Theology
- T/RS 217 - (P,D) The Holocaust in Context: History and Theology
- T/RS 218 - (P,D) Women in Christianity
- T/RS 222 - (P) Introduction to Christian Worship
- T/RS 250 - (P,D) Latin American Liberation Theology and Beyond
- T/RS 320 - (P) Early Christian Writers
- T/RS 323 - (P) Protestant Traditions
- T/RS 328 - (P) The Christian Church
- T/RS 329 - (P) Christian Classics
- T/RS 330 - (P) Christ in Tradition and Culture
- T/RS 333 - (P) Friendship and the Christian Life
- T/RS 410 - Salvation Outside the Church?

## Moral Theology

- T/RS 230 - (P) Moral Theology
- T/RS 231 - (P) God and the Good Society
- T/RS 232 - (P) Catholic Social Thought
- T/RS 234 - (P,D) Peacemakers
- T/RS 236 - (P) God and Money
- T/RS 331 - (P) God and the Earth
- T/RS 333 - (P) Friendship and the Christian Life
- T/RS 334 - (P,D) The Church and Contemporary Social Issues
- T/RS 335 - Virtue, Vice and Christian Ethics

- T/RS 337 - (P,D) Jewish Approaches to Ethics

## Non-Christian/Comparative Religions

- T/RS 210 - (P,D) Jews, Christians, and the Bible
- T/RS 217 - (P,D) The Holocaust in Context: History and Theology
- T/RS 219 - (P,D) The Religions of the World
- T/RS 243 - (P,D) Christ & Qur'an
- T/RS 245 - (P,D) Islam
- T/RS 319 - (P,D) Judaism in the Time of Jesus
- T/RS 327 - (D,P) Spiritual Classics
- T/RS 336 - (P,D) The Jewish Way of Life
- T/RS 337 - (P,D) Jewish Approaches to Ethics
- T/RS 410 - Salvation Outside the Church?

## Theology/Religious Studies Curriculum

| | ***Department and Number - Descriptive Title of Course*** | ***Fall Cr.*** | ***Spr. Cr.*** |
|---|---|---|---|
| **First Year** | | | |
| MAJOR (GE T/RS) | T/RS 121 - Theology I: Introduction to the Bible – T/RS 122 - Theology II: Introduction to Christian Theology | 3 | 3 |
| GE WRTG-SPCH | WRTG 107 - (FYW) Composition – COMM 100 - (FYOC) Public Speaking* | 3 | 3 |
| GE C/IL | C/IL 102/102L - (FYDT) Computing and Information Literacy* | 3 | |
| GE PHIL | PHIL 120 - Introduction to Philosophy | 3 | |
| GE HUMN | HUMN ELECT - Humanities Electives | 3 | 3 |
| GE QUAN | MATH ELECT - Quantitative Reasoning Elective | | 3 |
| GE S/BH | S/BH ELECT - Social/Behavioral Elective | | 3 |
| GE FSEM | First Year Seminar[1] | | |
| | | **15** | **15** |
| **Second Year** | | | |
| MAJOR | T/RS ELECT - Theology Electives | 3 | 3 |
| COGNATE | COGNATE ELECT - Cognate Electives | 3 | |
| GE NSCI | NSCI ELECT - Natural Science Electives | 3 | 3 |
| GE S/BH | S/BH ELECT - Social/Behavioral Elective | | 3 |

| | | | |
|---|---|---|---|
| GE PHIL | PHIL 210 - Ethics – ELECT- Philosophy Electives | 3 | 3 |
| GE HUMN | HUMN ELECT - Humanities Electives | 3 | 3 |
| | | **15** | **15** |
| **Third Year** | | | |
| MAJOR | T/RS ELECT - Theology Electives | 3 | 6 |
| COGNATE | COGNATE ELECT - Cognate Electives | 9 | 9 |
| GE ELECT | FREE ELECT - Free Electives | 3 | 3 |
| | | **15** | **18** |
| **Fourth Year** | | | |
| MAJOR | T/RS 490 - Theology Capstone Seminar | | 3 |
| MAJOR | T/RS ELECT - Theology Electives | 6 | |
| COGNATE | COGNATE ELECT - Cognate Electives | 9 | 9 |
| GE ELECT | FREE ELECT - Free Electives | 3 | 3 |
| | | **18** | **15** |
| | | | **Total: 123 Credits** |

[1] *The selection of a First Year Seminar is likely to fulfill requirements both for the First Year Seminar and a General Education Requirement. Thus, the First Year Seminar will not add to the total credits for the semester. Talk with your advisor if you have any questions.*

**An approved 3-credit EP Foundation Course may be substituted for COMM 100 and C/IL 102/102L-C/IL 104. In this case, the total needed for graduation in this major may be reduced. Consult with your advisor if you have questions.*

## Theology/Religious Studies Minor

The minor in Theology/Religious Studies requires 18 credits: T/RS 121 and T/RS 122 plus four more courses. In choosing courses for a minor, students may concentrate in one area of theology or they may select courses from several areas.

# World Languages and Cultures

## Faculty

Yamile Silva, Ph.D., *Chair*

Hannah Jackson, M.A., *Director of Language Learning Center*

Roxana Blancas Curiela, Ph.D.

Marzia Caporale, Ph.D.

Jaime Meilán del Río, Esq.

Virginia A. Picchietti, Ph.D.

Joseph P. Wilson, Ph.D.

Habib K. Zanzana, Ph.D.

## Mission Statement

The mission of the Department of World Languages and Cultures is to prepare students to become proficient in a language, a literature, and a culture other than English and American so that they may lead empowered and productive lives as global citizens. World language students, especially majors and minors, employ their enhanced cultural awareness, intercultural sensitivity, and global perspective, in order to meet the innumerable challenges of an ever increasingly interrelated and interdependent world.

The Department of World Languages and Cultures at The University of Scranton adheres to the Ignatian principle that world language education is a vital part of the student's intellectual formation. World language acquisition is a vital part of the liberal arts education that is at the core of Jesuit education. Proficiency in world languages allows students to understand better the world in which they live; to comprehend better the intellectual and cultural traditions of others; to serve more fully their fellows. The faculty work to develop in their students an informed sense of moral and ethical responsibility, in keeping with the Jesuit mission of *cura animae* and *cura personalis*. Academic and professional growth is nurtured through close contact with faculty and staff; a sense of service is fostered through multiple opportunities to work and interact with the local community; and a sense of international responsibility is created by prolonged interaction with international scholars here at the University, as well as study abroad in other countries. The faculty adheres to the highest standards of professional and scholarly responsibility in all their dealings with students, other faculty, other departments, and the University community.

## Overview

The program of the Department of World Languages and Cultures is designed to enable students to read, write, speak and comprehend one or more world languages; to think and express themselves logically, precisely and critically in one or more world languages; to acquire skills in literary criticism by reading representative world authors; to gain insight into the evolution of the culture and civilization of world peoples as reflected in their literature. **Majors are available in French and Francophone Studies, German Cultural Studies, Italian, and Hispanic Studies.** ***Important Note: Applications are not currently being accepted for German Cultural Studies major.***

The Bachelor of Arts program in **Classical Languages** gives students a solid foundation in Latin and Greek to engender an appreciation of the liberal aspects of Classical studies. Classics majors are encouraged to take their junior year abroad at Loyola University's Rome Center of Liberal Arts, with which The University of Scranton is affiliated.

World language majors and students pursuing teaching certification must complete 36 credits in one language beginning with the intermediate level if it is modern (or 30 credits if beginning at the 300-level), and the elementary level if it is classical. The cognate for World language majors may include a second language, either modern or classical, or courses appropriate to support a world regional interest or supporting courses for a future career. A double major may be pursued by taking 36 credits in one language, beginning with the intermediate or elementary level, and by satisfying the major and cognate requirements of another department. The placement of students at a particular world-language level is the responsibility of the department.

The department urges students to study abroad during their junior year. In addition, it strongly recommends that students returning from the study abroad experience take at least one course per semester in their major language during the senior year. All returning students are required to take at least one upper-division 300- or 400-level course in their major language at The University of Scranton. Courses taken abroad in the target language may count toward majors and minors.

## Affiliated Programs

The Italian Studies Concentration is affiliated with the Department of World Languages and Cultures.

For information on the CAS/MBA Five-Year Program, visit our CAS/MBA Five-Year Program page.

## Course Information

Courses for **World Languages and Cultures** are listed under the prefixes ASL, ARAB, CNS, FREN, GERM, SPAN, ITAL, JPN, PORT, RUSS, GRK, HEBR, LAT, LIT, and LANG. For more information on these courses visit our World Languages and Cultures Department Courses page. For more information on all courses offered, visit our Course Descriptions page.

## Classical Studies, BA

## Classical Studies Curriculum

| | *Department and Number - Descriptive Title of Course* | *Fall Cr.* | *Spr. Cr.* |
|---|---|---|---|
| **First Year** | | | |
| MAJOR | LAT 211 - (CF) Intermediate Latin – LAT 212 - (CF) Intermediate Latin[1] | 3 | 3 |
| COGNATE | Second Language (Greek or Relevant Elective)[2] | 3 | 3 |
| GE SPCH–WRTG | COMM 100 - (FYOC) Public Speaking* – WRTG 107 - (FYW) Composition | 3 | 3 |
| GE QUANT | QUANT ELECT – Quantitative Reasoning Elective | | 3 |
| GE C/IL | C/IL 102/102L - (FYDT) Computing and Information Literacy* | 3 | |
| GE PHIL–T/RS | PHIL 120 - Introduction to Philosophy – T/RS 121 - Theology I: Introduction to the Bible | 3 | 3 |
| GE FSEM | First Year Seminar[3] | | |
| | | **15** | **15** |
| **Second Year** | | | |
| MAJOR | LAT 311 - Readings in Latin Literature – LAT 312 - Readings in Latin Literature | 3 | 3 |
| COGNATE | Second Language (Greek or Relevant Elective)[2] | 3 | 3 |
| GE HUMN | HUMN ELECT – Humanities Electives | 3 | 3 |
| GE NSCI | NSCI ELECT – Natural Science Electives | 3 | 3 |
| GE PHIL–T/RS | PHIL 210 - Ethics – T/RS 122 - Theology II: Introduction to Christian Theology | 3 | 3 |
| | | **15** | **15** |
| **Third Year** | | | |
| MAJOR | LAT ELECT – Advanced Lang. Electives | 3 | 3 |
| COGNATE | COGNATE ELECT – Cognate/Supporting Electives[2] | 3 | 6 |
| GE PHIL or T/RS | PHIL ELECT – Philosophy Elective or T/RS ELECT - T/RS Elective | 3 | |
| GE S/BH | S/BH ELECT – Social/Behavioral Electives | 3 | 3 |
| GE ELECT | FREE ELECT – Free Electives | 6 | 6 |
| | | **18** | **18** |
| **Fourth Year** | | | |
| MAJOR | LANG ELECT – Supporting Course Electives | 6 | 6 |

| | | | |
|---|---|---|---|
| COGNATE | COGNATE ELECT – Cognate Electives | 3 | 3 |
| GE ELECT | FREE ELECT – Free Electives | 6 | 6 |
| | | **15** | **15** |
| | | | **Total: 126 Credits** |

[1] *Students beginning the Classical Studies major at LAT 111 - (CF) Beginning Latin - LAT 112 - (CF) Beginning Latin, will add 6 credits to the Latin area for a total of 36 credits in the major.*

[2] *Supporting course electives should be chosen from ARTH 116 - (CA) Art of Greece and Rome, HIST 228 - Ancient History - HIST 229 - Ancient History - HIST 230-231 - Medieval History, PHIL 220 - (P) Ancient Philosophy, PHIL 327 - Readings in the Later Plato, GRK 213 - (CL,D) Classical Greek Literature and Mythology, LAT 213 - (CL,D) Classical Roman Literature and Mythology.*

[3] *The selection of a First Year Seminar is likely to fulfill requirements both for the First Year Seminar and a General Education Requirement. Thus, the First Year Seminar will not add to the total credits for the semester. Talk with your advisor if you have any questions.*

**An approved 3-credit EP Foundation Course may be substituted for COMM 100 and C/IL 102/102L-C/IL 104. In this case, the total needed for graduation in this major may be reduced. Consult with your advisor if you have questions.*

The major in International Language-Business is a professionally oriented program. Its purpose is to make language study a more career-structured discipline by providing students with the opportunity to acquire a liberal education while, at the same time, taking courses specifically relevant to a business enterprise.

In order to bridge the communication gap between multinational businesses and the lack of functional language skills often exhibited by the personnel representing them, specialized language courses focusing on the business terminology and cultural setting of the countries in question complement the regular language and business courses in this major.

The department urges students to study abroad during their junior year. In addition, it strongly recommends that students who spend the entire junior year abroad plan their studies carefully, so that they will be able to take at least one course per semester in their major language during the senior year. Students who pursue a business internship will earn credits in addition to the 129 credits stipulated for the program, unless there is room in the free area.

## International Language–Business Curriculum

| | ***Department and Number - Descriptive Title of Course*** | ***Fall Cr.*** | ***Spr. Cr.*** |
|---|---|---|---|
| **First Year** | | | |
| MAJOR (GE HUMN) | LANG1 211–212 or 311–312 - Intermediate or Conversation/Composition | 3 | 3 |
| COGNATE | Second language or relevant electives[3] | 3 | 3 |
| GE WRTG | WRTG 107 - (FYW) Composition | | 3 |
| GE QUANT | QUANT ELECT - Quantitative Reasoning Elective | 3 | |
| GE C/IL | C/IL 102/102L (FYDT) Computing and Information Literacy[5] | 3 | |
| GE SPCH | COMM 100 (FYOC) Public Speaking[5] | 3 | |
| GE FSEM | First Year Seminar[6] | | |

| | | | |
|---|---|---|---|
| GE PHIL | PHIL 120 - Introduction to Philosophy | | 3 |
| GE T/RS | T/RS 121 - Theology I: Introduction to the Bible | | 3 |
| | | **15** | **15** |
| **Second Year** | | | |
| MAJOR | LANG 311–312 - Conversation/Composition[1] | 3 | 3 |
| MAJOR | ACC 253 - Financial Accounting | 3 | |
| COGNATE | Second language or relevant electives[3] | 3 | 3 |
| GE HUMN | HUMN ELECT - Humanities Elective | | 3 |
| GE S/BH | S/BH ELECT - ECO 153 - (S) Principles of Microeconomics - ECO 154 - (S) Principles of Macroeconomics | 3 | 3 |
| GE PHIL–T/RS | PHIL 210 - Ethics – T/RS 122 - Theology II: Introduction to Christian Theology | 3 | 3 |
| | | **15** | **15** |
| **Third Year** | | | |
| MAJOR | LANG ELECT – Advanced Language Electives | 6 | 6 |
| MAJOR | MGT 351 - Principles of Management and Entrepreneurship I | | 3 |
| MAJOR | ECO/IB 351 - (D) Environment of International Business | | 3 |
| MAJOR | FIN 251 - Introduction to Finance | 3 | |
| GE NSCI | NSCI ELECT - Natural Science Electives | 3 | 3 |
| GE PHIL or T/RS | PHIL ELECT or T/RS ELECT - Philosophy Elective or T/RS Elective[4] | 3 | |
| | | **15** | **15** |
| **Fourth Year** | | | |
| MAJOR | LANG 319 - Business Language | | 3 |
| MAJOR | LANG ELECT - Advanced Language Electives | 6 | 3 |
| MAJOR | MKT 351 - Introduction to Marketing | 3 | |
| MAJOR | INT ELECT–One of MGT/IB 475, MKT/IB 475, ECO/IB 375, FIN/IB 475, IB 476, IB 477 | 3 | |
| GE HUMN | HUMN ELECT - Humanities Elective | | 3 |
| GE ELECT | FREE ELECT - Free Electives | 3 | 6 |
| | | **15** | **15** |

| | |
|---|---|
| | **Total: 120 Credits** |

[1] *Students who begin their major language level at the 311 level take 6 fewer credits in the major and 6 more credits in the cognate or free area. In their second year, they will choose advanced language electives.*

[2] *Students whose first language is Spanish will take SPAN 320–SPAN 321, and three of the following four courses: SPAN 313, SPAN 314, SPAN 330, and SPAN 331 in their advanced language electives area. French majors are required to take FREN 320.*

[3] *PS 212, PS 210, and ACC 254 are recommended GE electives. Other recommended GE electives include a second language or history, political science, art history or other courses relevant to world area(s) of interest, such as HIST 125/126 and PS 219/323 for Latin America, HIST 132-133, PS 213 and ARTH 211 for Africa. Consult with your adviser.*

[4] *A course focusing on the ethics of business is recommended.*

[5] *An approved 3-credit EP Foundation Course may be substituted for COMM 100 and C/IL 102/102L-C/IL 104. In this case, the total needed for graduation in this major may be reduced. Consult with your advisor if you have questions.*

[6] *The selection of a First Year Seminar is likely to fulfill requirements both for the First Year Seminar and a General Education Requirement. Thus, the First Year Seminar will not add to the total credits for the semester. Talk with your advisor if you have any questions.*

# World Language and Cultures Majors, BA

## World Languages and Cultures Curriculum

| | ***Department and Number - Descriptive Title of Course*** | ***Fall Cr.*** | ***Spr. Cr.*** |
|---|---|---|---|
| **First Year** | | | |
| MAJOR (GE) HUMN) | LANG 211–212 or 311–312 - Intermediate or Conversation/Composition | 3 | 3 |
| COGNATE | Second language or relevant electives[3] | 3 | 3 |
| GE WRTG | WRTG 107 - (FYW) Composition | 3 | |
| GE QUANT | QUAN ELECT - Quantitative Reasoning Elective | | 3 |
| GE C/IL | C/IL 102/102L - (FYDT) Computing and Information Literacy [5] | 3 | |
| GE SPCH | COMM 100 - (FYOC) Public Speaking [5] | 3 | |
| GE FSEM | First Year Seminar[4] | | |
| GE PHIL | PHIL 120 - Introduction to Philosophy | | 3 |
| GE T/RS | T/RS 121 - Theology I: Introduction to the Bible | | 3 |
| | | **15** | **15** |
| **Second Year** | | | |
| MAJOR | LANG 311–312 - Adv. Conversation/ Comp[1] | 3 | 3 |
| COGNATE | Second language or relevant electives[3] | 3 | 3 |
| GE HUMN | HUMN ELECT - Humanities Electives | 3 | 3 |

| | | | |
|---|---|---|---|
| GE NSCI | NSCI ELECT - Natural Science Electives | 3 | 3 |
| GE PHIL–T/RS | PHIL 210 - Ethics – T/RS 122 - Theology II: Introduction to Christian Theology | 3 | 3 |
| | | **15** | **15** |
| **Third Year** | | | |
| MAJOR | LANG ELECT - Advanced Lang. Electives[2] | 6 | 6 |
| COGNATE | COGNATE ELECT - Cognate Electives | 3 | 6 |
| GE PHIL or T/RS | PHIL ELECT - Philosophy or T/RS ELECT - T/RS Elective | 3 | |
| GE S/BH | S/BH ELECT - Social/Behavioral Electives | 3 | 3 |
| | | **15** | **15** |
| **Fourth Year** | | | |
| MAJOR | LANG ELECT - Advanced Lang. Electives | 6 | 6 |
| COGNATE | COGNATE ELECT - Cognate Electives | 3 | 3 |
| GE ELECT | FREE ELECT - Free Electives | 6 | 6 |
| | | **15** | **15** |
| | | | **Total: 120 Credits** |

[1] *Students who begin language at the Advanced (311) level will take 6 fewer credits in the major and 6 more credits in the cognate or free elective area in either the junior or senior year. In their second year, they will choose advanced language electives.*

[2] *French majors are required to take FREN 320. Spanish majors will take SPAN 320 and SPAN 321 and three of the following four courses: SPAN 313, SPAN 314, SPAN 330, or SPAN 331.*

[3]*Recommended GE electives include a second language or history, political science, art history or other courses relevant to world area(s) of interest, such as HIST 125/126 and PS 219/323 for Latin America, HIST 132-133, PS 213 and ARTH 211 for Africa. Consult with your adviser.*

[4]*The selection of a First Year Seminar is likely to fulfill requirements both for the First Year Seminar and a General Education Requirement. Thus, the First Year Seminar will not add to the total credits for the semester. Talk with your advisor if you have any questions.*

[5]*An approved 3-credit EP Foundation Course may be substituted for COMM 100 and C/IL 102/102L.*

## Modern Languages

- American Sign Language
- Arabic
- Chinese
- French and Francophone Cultural Studies
- German Cultural Studies*
- Hispanic Studies

- Italian
- Japanese
- Portuguese
- Russian

***Important Note*: Applications are not currently being accepted for this major.**

## World Languages and Cultures Minors

**French, German, Greek, Italian, Latin, Spanish:** 18 credits at the elementary level or above. Placement in a previously studied language will be determined by placement testing in the Language Learning Center.

**Portuguese:** 14 credits consisting of

PORT 110, PORT 210, and two advanced Portuguese courses.

Minors in **Arabic, Chinese, German, Japanese** and **Russian** are sometimes possible, depending upon the availability of courses in these languages or through study abroad. **Arabic, Chinese and Japanese:** 18 credits at the elementary level or higher. **Russian:** 16 credits consisting of

RUSS 110, RUSS 210 and 6 additional credits.

Students who minor in **two languages** must complete 12 credits in each language beginning at the intermediate level or higher.

*Elementary courses in any language are not normally open to students who have studied two or more years of the same language in high school. Native speakers of a language normally begin above the 311-312 level. Any deviation from these policies must be approved by the Department of World Languages and Cultures.*

# Kania School of Management

The Kania School of Management will be a top-tier, master's-level business school that attracts students from across the globe and transforms them into responsible business leaders in the Jesuit tradition. It will be the major academic resource for business and economic development in Northeastern Pennsylvania.

## Accreditation

The Kania School of Management is accredited by The Association to Advance Collegiate Schools of Business (AACSB International) on both the undergraduate and graduate levels.

## Mission Statement

The mission of The Arthur J. Kania School of Management is to provide a Jesuit-inspired business education, within a culture of excellence that prepares women and men for success. To achieve this mission, the Kania School of Management of The University of Scranton is committed to:

- Instilling intellectual curiosity and lifelong learning.
- Facilitating student development of business skills and independent thinking.
- Fostering a comprehension of, and sensitivity to, international issues and social justice.
- Promoting and modeling personal integrity and ethical decision making.
- Providing and promoting opportunities for community service to Northeastern Pennsylvania and the broader community.
- Complementing excellence in teaching with faculty scholarly productivity emphasizing contributions to practice and learning and pedagogical research, but also valuing basic/discovery scholarship.

## Departmental Programs

Nine programs are available in the Kania School of Management: Accounting, Business Administration, Business Analytics, Entrepreneurship, Finance, International Business, Management, Marketing, and Operations Management. In addition, a B.S. in Economics is jointly offered with the College of Arts and Sciences. These programs prepare the student for a career in business or for graduate study.

In addition to the requirements of the major and the business core, students in the Kania School of Management will complete the same general education core as students in the other undergraduate colleges. At least 50% of the major and business core credits must be earned at The University of Scranton. Apart from minor exceptions, which require the explicit approval of the dean of the school, the student will spend the senior year in residence at the University. The Kania School of Management is a member of the SAP University Alliance. This program enhances the value of the curriculum by placing the latest information technology in the classroom to give the next generation of business leaders a real-world advantage. The school has access to a fully operational SAP R/3 system for instructional use. Members of the faculty have been specifically trained by SAP America and are integrating Enterprise Resource Planning systems in appropriate classes.

At the graduate level, in addition to the traditional on-campus MBA, the University of Scranton also offers an MBA online for students who want the rigors of an AACSB accredited program, but need flexibility that an online program offers due to their schedule or distance from the University. An accelerated BS/MBA programs allows students to complete their BS and MBA degrees in five years, with specializations in accounting, finance, operations management, marketing or economics. Students may also enter a Master of Accountancy program and take classes entirely online, or enroll in a five-year, joint bachelors/masters in accountancy program with a mix of on-campus and online courses.

At the doctorate level, our Doctor of Business Administration (DBA) in Accounting (https://www.scranton.edu/academics/ksom/dba-program/index.shtml) is a rigorous research degree designed to provide experienced accounting professionals with the advanced skills and credentials required to secure and succeed in full-time, tenure-track faculty positions at accredited institutions. This program is delivered through on-campus residency requirements that are fulfilled while the student maintains his/her current position.

## Graduation Requirements

In order to graduate in a business major, in addition to the 2.00 minimum grade-point average (GPA) overall, the student must have earned a minimum 2.00 GPA in both the major and business core course work.

The student must also complete the requirements outlined in the Kania School of Management Professional Development Passport Program. The Kania School of Management Professional Development Passport Program is designed to prepare our students to effectively compete in today's business world. Whether it be through required events, optional workshops or service learning at the University our students will gain invaluable confidence, knowledge, and business savvy required to successfully work in their chosen profession.

For information about the Passport Program, please contact Ms. Tamara Bautista, Passport Program Coordinator, the Center for Practical Learning, 332 Brennan Hall, or e-mail tamara.bautista@scranton.edu.

## Minors

A minor in general Business is available to non-business students with the exception of students majoring in Chemistry-Business, Electronics-Business and Economics (KSOM only). It consists of 21 credits:

- ECO 101 - (S) Current Economic Issues
- ACC 253 - Financial Accounting
- ECO/IB 351 - (D) Environment of International Business
- FIN 251 - Introduction to Finance
- MGT 351 - Principles of Management and Entrepreneurship I
- MKT 351 - Introduction to Marketing
- OIM 471 - Business Information Management

The last five must be taken after the other courses, and may be taken no earlier than the junior year. Minors in Accounting, Business Analytics, Business Leadership, Economics, Entrepreneurship, Finance, Management, and Operations Management are described under those respective programs. A concentration in Business Analytics is also available.

## Business Cognate

Non-Business students with special needs may pursue a personal cognate in Business, but may not take more than 25% of their total credit hours in Business. With the approval of his or her advisor, the student is free to select a variable number of Business courses. However, the prerequisites stated in the catalog must be observed, and upper-division courses may not be taken before the junior year.

## Math Options

Two math options are available to Business majors:

### Option I* (6 credits)

MATH 107 - (Q) Quantitative Methods II
MATH 108 - Quantitative Methods III

### Option II* (8 credits)

MATH 114 - (Q) Calculus I
MATH 221 - Calculus II

Both options cover the topics of calculus. Option I takes an applied approach; Option II a theoretical approach.

** Students are tested for math placement during summer orientation. On the basis of these tests and their high school background it will be recommended that some students take Option II, especially if they expect to pursue graduate studies. The majority of students will be placed in Option I, and may also be required to take MATH 106: Quantitative Methods I as a prerequisite to taking MATH 107.*

# Accounting

## Faculty

Douglas M. Boyle, D.B.A., C.P.A., C.M.A., *Chair, Doctorate in Business Administration Director*

James F. Boyle, D.B.A., C.P.A., *Master in Accountancy Director*

Brian W. Carpenter, Ph.D., C.M.A.

Jeh-Hyun Cho, Ph.D.

Andrew J. Gregorowicz, M.B.A.

Robyn Lawrence, Ph.D., C.M.A.

Richard C. O'Hara, M.B.A., C.F.A.

Daniel P. Mahoney, Ph.D., C.P.A., C.F.E., C.M.A.

Amanda S. Marcy, C.P.A.

Linda Mlodzienski, C.P.A.

David Salerno, Ph.D., C.P.A.

Ashley L. Stampone, C.P.A.

## Overview

In today's ever-expanding world of international commerce, it is important to be fluent in the language of business. Indeed, accounting is defined as "the language of business." Today's accounting professionals are in great demand, and new and exciting niches, including fraud examination/forensic accounting and accounting information systems, are developing within the profession. In short, there has never been a better – or more exciting – time to consider a career in accounting.

The Accounting Department at The University of Scranton strives for continuous improvement so that the program responds to the changing needs and demands of the global business world. Program options include:

- the traditional four-year Bachelor of Science degree,
- a combined Bachelor of Science/Master of Accountancy degree that can be completed within as few as four academic years,
- a four or five-year combined Bachelor of Science/Master of Business Administration degree,
- a minor in accounting,
- a minor in forensic accounting,
- a minor in business analytics,
- and a minor in finance.

Within the four-year program and the combined BS/Master programs, students may opt to complete a variety of minors including a minor in Forensic Accounting, Business Analytics, or Finance.

The success of the University's accounting graduates is demonstrated by their job placements. Alumni are employed by Big Four, regional and local public accounting firms and by many notable firms in private industry, as well as by governmental and not-for-profit organizations. Qualified students have opportunities for on-the-job training through internships.

## Affiliated Programs

For information on **International Business**, a program affiliated with the Department of Accounting, visit International Business, BS.

## Course Information

Courses for **Accounting** are listed under the prefixes ACC and ACC/IB. For more information these and all courses offered, visit our Course Descriptions page.

# Accounting, BS

## Four-Year Accounting Degree

Within the four-year accounting program, students have the option of completing a variety of minors including a minor in Forensic Accounting, Business Analytics, or Finance. The accounting program provides a solid foundation in business and accounting for students interested in accounting careers in public accounting, private industry, nonprofit organizations, in pursuing graduate studies (e.g., law), or in preparation for running their own businesses. This program is appropriate for students interested in professional certifications such as Certified Public Accountant, Certified Management Accountant, Certified Fraud Examiner, and/or Certified Internal Auditor.

The Forensic Accounting minor was developed in response to the demand for accounting professionals with specialized knowledge in the areas of fraud examination and litigation support. This minor includes course work in fraud examination, criminology and financial statement analysis. This minor is appropriate for the student interested in becoming a Certified Public Accountant or Certified Fraud Examiner.

The Business Analytics minor or the Accounting Information Systems minor prepares students to take advantage of the expanding variety of opportunities available to professionals with a strong and integrated knowledge of accounting (the "language of business") and the evolving information technologies needed to implement and manage accounting information systems (AIS). Opportunities exist in the corporate, public accounting and non-profit sectors for accounting professionals who can assist their organizations or clients in assessing the opportunities and risks associated with specific information-technology deployments. Students in this minor are encouraged to pursue professional certifications such as the Certified Information Systems Security Professional (CISSP), the Certified Information Systems Auditor (CISA) and the Certified Internal Auditor (CIA).

To receive a degree in accounting, the student must earn at least a "C" in each of the two accounting principles courses (ACC 251–ACC 252 or equivalent).

Gainful Employment Disclosure – Undergraduate Certificate in Accounting Level II – 2019

## Accounting – General Accounting Track Curriculum

| | *Department and Number - Descriptive Title of Course* | *Fall Cr.* | *Spr. Cr.* |
|---|---|---|---|
| **First Year** | | | |
| BUS CORE | ACC 251 - Financial Accounting I — ACC 252 - Financial Accounting II | 3 | 3 |
| GE S/BH | ECO 153 - (S) Principles of Microeconomics — ECO 154 - (S) Principles of Macroeconomics | 3 | 3 |
| GE WRTG–GE EP | WRTG 107 - (FYW) Composition — BUS 140 - (FYDT,FYOC) Business Information & Oral Proficiency | 3 | 3 |
| GE PHIL–T/RS | PHIL 120 - Introduction to Philosophy — T/RS 121 - Theology I: Introduction to the Bible | 3 | 3 |
| GE QUAN | MATH ELECT - Math Option | | 3-4 |
| GE HUMN | HUMN ELECT - Humanities Elective[2] | 3-4 | |
| BUS CORE | BUS 150 - Career and Professional Development | 1 | |
| GE FSEM | First Year Seminar[5] | | |
| | | **16-17** | **15-16** |
| **Second Year** | | | |

| | | | |
|---|---|---|---|
| BUS CORE | ACC 361 - Intermediate Accounting I — ACC 362 - Intermediate Accounting II | 3 | 3 |
| BUS CORE | STAT 251 - (Q) Statistics for Business I — STAT 252 - (Q) Statistics for Business II | 3 | 3 |
| BUS CORE | MGT 251 - Legal Environment of Business | | 3 |
| BUS CORE | OIM 251 - Excel for Business Applications | 1 | |
| GE PHIL–T/RS | PHIL 210 - Ethics — T/RS 122 - Theology II: Introduction to Christian Theology | 3 | 3 |
| GE NSCI | NSCI ELECT - Natural Science Elective | | 3 |
| GE HUMN | HUMN ELECT - Humanities Elective | 3 | |
| GE ELECT | FREE ELECT - Free Elective[3] | 3 | |
| | | **16** | **15** |
| **Third Year** | | | |
| MAJOR | ACC 363 - Federal Taxes — ACC 461 - Cost Accounting | 3 | 3 |
| BUS CORE | ACC 474 - Accounting Information Systems | 3 | |
| BUS CORE | MGT 351 - Principles of Management and Entrepreneurship I — MGT 352 - Principles of Management and Entrepreneurship II | 3 | 3 |
| BUS CORE | FIN 251 - Introduction to Finance — MKT 351 - Introduction to Marketing | 3 | 3 |
| BUS CORE | OIM 351 - Introduction to Business Analytics — OIM 352 - Introduction to Operations Management | 3 | 3 |
| BUS CORE | ECO/IB 351 - (D) Environment of International Business | | 3 |
| GE PHIL or T/RS | PHIL or T/RS ELECT — Philosophy or T/RS Elective | 3 | |
| HUMN ELECT | HUMN ELECT - Humanities Elective | | 3 |
| | | **18** | **18** |
| **Fourth Year** | | | |
| MAJOR | ACC 460 - Advanced Accounting I — ELECT - Major Elective[4] | 3 | 3 |
| MAJOR | ACC 364 - (EPW) Auditing Theory — FREE ELECT - Free Elective | 3 | 3 |
| BUS CORE | ACC 490 - Accounting Analytics and Visualization— MGT 455 - Business Policy and Strategy | 3 | 3 |
| GE HUMN | HUMN ELECT Humanities Elective | | 3 |
| GE ELECT | GE ELECT - Major Elective[2] | 3 | |

| | | | |
|---|---|---|---|
| GE NSCI | NSCI ELECT - Natural Science Elective | 3 | |
| | | **15** | **12** |
| | | | **TOTAL: 125-127 Credits** |

[1] *MATH 106, MATH 107, or MATH 108 fulfills the requirement.*

[2] *If EDUC 113 is required in the first semester, it is taken in place of a humanities elective and is counted as a GE free elective. One GE free elective in the fourth year must then be taken as a humanities elective.*

[3] *If a second math course is required, it replaces this GE elective.*

[4] *Major electives recommended for the CPA examination are ACC 470 and ACC 472.* For meeting New York requirements, the recommended courses are ACC 470, ACC 463 (or ACC 527), ACC 477 (or ACC 531) and ACC 465 (or ACC 538).

[5]*The selection of a First Year Seminar is likely to fulfill requirements both for the First Year Seminar and a General Education Requirement. Thus, the First Year Seminar will not add to the total credits for the semester. Talk with your advisor if you have any questions.*

## Accounting Information Systems Minor

The Accounting Information Systems minor provides students of any major with an understanding of basic accounting and an opportunity to acquire related information-technology knowledge and skills. The minor serves to expand students' career opportunities in areas such as accounting, business, government, non-profit management and law enforcement.

The minor consists of 18 credits: ACC 251 - ACC 252 or ACC 253 - ACC 254, ACC 372, ACC 474 , and two additional AIS-related courses from the following: ACC 373, ACC 374, ACC 375, ACC 476 (requires ACC 374) or ACC 479. (If credit has been received for OIM 471, the student may substitute another for AIS-related course for ACC 474 in this minor.) Therefore, business students (and other students who are required to take two semesters of sophomore-level accounting courses) can complete the minor by taking four additional AIS-related courses.

## Accounting Minor

The Accounting minor provides students of any major with an understanding of the language of business, thus serving to expand their career possibilities. The minor also serves as an excellent foundation for students who might later pursue a graduate business degree or law degree.

The minor consists of four required courses (ACC 251 - ACC 252 or ACC 253 - ACC 254, ACC 361 and ACC 363), plus two elective courses (any 300- or 400-level accounting courses). Therefore, business students (and other students who are required to take two semesters of sophomore-level accounting) can complete the minor by taking four additional accounting courses beyond the two accounting courses that are required of their major. Other students can complete the minor by taking no more than six accounting courses. Interested students should contact their advisors in the KSOM Advising Center.

## Forensic Accounting Minor

The Forensic Accounting minor provides students of any major with an understanding of basic accounting and an opportunity to acquire related knowledge and skills to prevent and detect occupational fraud including asset misappropriation, corruption, and financial statement fraud. The minor serves to expand students' career opportunities in areas such as accounting, auditing, business, law enforcement, government, and non-profit management.

The minor consists of 18 credits: ACC 251 - ACC 252, MGT 251, S/CJ 213, BUS 250, ACC 370 or ACC 473.

## Accounting, B.S./MBA Program

The Accounting Department offers interested and qualified students the opportunity to earn both a Bachelor of Science degree in accounting and a Master of Business Administration degree. While this program may benefit any student interested in the accounting discipline, the program was developed in response to the adoption by most states of a 150-credit-hour educational requirement to become a Certified Public Accountant. With judicious course scheduling, most students can complete the program within five

academic years.

Students interested in this accelerated B.S./M.B.A. degree program should consult their academic advisors by the beginning of their sophomore year and apply to Graduate Admissions as early as a month prior to the start of the second semester of their junior year at The University of Scranton. Criteria for acceptance into the accelerated program include the student's previous academic performance, GMAT score (waived for students with at least a 3.50 GPA), letters of recommendation and statement of purpose. Students must adhere to requirements as listed in the *Graduate Studies Catalog.*

## Combined, B.S./MAcc Program

The Accounting Department offers interested and qualified students the opportunity to earn both a Bachelor of Science degree in accounting and a Master of Accountancy degree. With judicious course scheduling, students can complete the program within as few as four academic years. This program was developed in response to the adoption by most states of a 150-credit-hour educational requirement to become a Certified Public Accountant and to provide students with the opportunity to work full-time in the profession, while completing the last year of the program either online or on campus.

Students interested in the combined B.S./MAcc degree program should apply as incoming freshman to reserve a seat and inform academic advising. In addition, students should apply to Graduate Admissions as early as December of their junior year. Acceptance into the combined program is based on the student's previous academic performance and statement of purpose. Students must adhere to requirements as listed in the *Graduate Studies Catalog.*

## Combined, B.S./MAcc Program Curriculum

| Fall | Intersession | Spring | Summer |
|---|---|---|---|
| **First Year** | | | |
| ACC 251 - Financial Accounting I | ECO 153 - (S) Principles of Microeconomics (online) | ACC 252 - Financial Accounting II | HUMN ELECT - Humanities Elective (online) |
| WRTG 107 - (FYW) Composition | | ECO 154 - (S) Principles of Macroeconomics | FREE ELECT HUMN ELECT - Humanities Elective |
| PHIL 120 - Introduction to Philosophy | | T/RS 121 - Theology I: Introduction to the Bible | |
| MATH ELECT - Mathematics Elective | | BUS 140 - (FYDT,FYOC) Business Information & Oral Proficiency | |
| HUMN ELECT/First Year Seminar | | MATH ELECT - Mathematics Elective | |
| **15 credits** | **3 credits** | **15 credits** | **6 credits** |
| **Second Year** | | | |
| ACC 361 - Intermediate Accounting I | ACC 363 - Federal Taxes | ACC 362 - Intermediate Accounting II | ACC 461 - Cost Accounting/ACC 526 - Managerial Accounting (MAcc Cross listed) (online)* |
| STAT 251 - (Q) Statistics for Business I | | STAT 252 - (Q) Statistics for Business II | MGT 251 - Legal Environment of Business |
| PHIL 210 - Ethics | | T/RS 122 - Theology II: Introduction to Christian Theology | |

| | | | |
|---|---|---|---|
| NSCI ELECT - Natural Science Elective | | NSCI ELECT - Natural Science Elective | |
| HUMN ELECT - Humanities Elective | | HUMN ELECT - Humanities Elective | |
| FIN 251 - Introduction to Finance | | PHIL or T/RS ELECT - Philosophy or Theology Elective | |
| **18 credits** | **3 credits** | **18 credits** | **6 credits** |
| **Third Year** | | | |
| ACC 460 - Advanced Accounting ACC 540 Contemporary Financial Accounting Topics (MAcc Cross listed)* | MGT 352 - Principles of Management and Entrepreneurship II | MKT 351 - Introduction to Marketing | FREE ELECT - Free Elective (online) |
| MGT 351 - Principles of Management and Entrepreneurship I | FREE ELECT - Free Elective (online) | OIM 352 - Introduction to Operations Management | MGT 455 - Business Policy and Strategy |
| GE FREE ELECT - Free Elective | | ACC 474 - Accounting Information Systems (condensed for interns) | |
| OIM 351 - Introduction to Business Analytics | | Winter Internship/Major Elective | |
| ACC 364 - (EPW) Auditing Theory | | | |
| ECO/IB 351 - (D) Environment of International Business | | | |
| **18 credits** | **6 credits** | **12 credits** | **6 credits** |
| **Fourth Year** | | | |
| MAcc (oncampus or online) | MAcc (oncampus or online) | MAcc (oncampus or online) | |
| MAcc (oncampus or online) | | MAcc (oncampus or online) | |
| MAcc (oncampus or online) | | MAcc (oncampus or online) | |
| MAcc (oncampus or online | | | |
| **12 credits** | **3 credits** | **9 credits** | |

*See the *Graduate Studies Catalog* for course descriptions.

# Business Administration

Satya P. Chattopadhyay, Ph.D., *Chair*

See Marketing, Management and Entrepreneurship for faculty listing.

## Overview

The Business Administration major is designed to serve the student who wishes to approach the study of business from a broader perspective than would be possible with a traditional functional major. The student's program of study will include a set of advanced electives selected according to a plan of study developed with the assistance of an academic advisor. This major is especially well suited for any student pursuing a degree in the evening.

## Course Information

Courses for Business Administration are listed under BUAD. For more information on these courses, visit Business Administration Courses page. For information on all courses offered, visit our Course Descriptions page.

# Business Administration, BS

## Business Administration Curriculum

| | *Department and Number - Descriptive Title of Course* | *Fall Cr.* | *Spr. Cr.* |
|---|---|---|---|
| **First Year** | | | |
| GE S/BH | ECO 153 - (S) Principles of Microeconomics – ECO 154 - (S) Principles of Macroeconomics | 3 | 3 |
| GE WRTG–SPCH | WRTG 107 - (FYW) Composition – BUS 140 - (FYDT,FYOC) Business Information & Oral Proficiency | 3 | 3 |
| GE QUAN | MATH ELECT – Math Option (two courses)[1] | 3-4 | 3-4 |
| GE PHIL–T/RS | PHIL 120 - Introduction to Philosophy – T/RS 121 - Theology I: Introduction to the Bible | 3 | 3 |
| GE HUMN | HUMN ELECT – Humanities Elective | 3 | 3 |
| GE FSEM | First Year Seminar[3] | | |
| BUS CORE | BUS 150 - Career and Professional Development | | 1 |
| | | **15-16** | **16-17** |
| **Second Year** | | | |
| BUS CORE | ACC 253 - Financial Accounting – ACC 254 - Managerial Accounting | 3 | 3 |
| BUS CORE | STAT 251 - (Q) Statistics for Business I – STAT 252 - (Q) Statistics for Business II | 3 | 3 |
| BUS CORE | OIM 251 - Excel for Business Applications | 1 | |
| GE PHIL–T/RS | PHIL 210 - Ethics – T/RS 122 - Theology II: Introduction to Christian Theology | 3 | 3 |

| | | | |
|---|---|---|---|
| GE NSCI | NSCI ELECT – Natural Science Electives | 3 | 3 |
| GE HUMN | HUMN ELECT – Humanities Elective | | 3 |
| BUS CORE | MGT 251 - Legal Environment of Business | 3 | |
| | | **16** | **15** |
| **Third Year** | | | |
| BUS CORE | ECO/IB 351 - (D) Environment of International Business | 3 | |
| BUS CORE | FIN 251 - Introduction to Finance – MKT 351 - Introduction to Marketing | 3 | 3 |
| BUS CORE | MGT 351 - Principles of Management and Entrepreneurship I – MGT 352 - Principles of Management and Entrepreneurship II | 3 | 3 |
| BUS CORE | OIM 351 - Introduction to Business Analytics – OIM 352 - Introduction to Operations Management | 3 | 3 |
| MAJOR[2] | BUS ELECT – Business Electives | | 6 |
| GE ELECT | FREE ELECT – Free Elective | 3 | |
| GE PHIL or T/RS | PHIL or T/RS ELECT – Philosophy or T/RS Elective | | 3 |
| | | **15** | **18** |
| **Fourth Year** | | | |
| MAJOR | BUS ELECT – Business Electives[1] | 6 | 6 |
| BUS CORE | MGT 455 - Business Policy and Strategy | | 3 |
| BUS CORE | OIM 471 - Business Information Management | 3 | |
| GE HUMN | HUMN ELECT – Humanities Elective | 3 | |
| GE ELECT | FREE ELECT – Free Electives[2] | 3 | 6 |
| | | **15** | **15** |
| | | | **Total: 125-127 Credits** |

*[1] See note on Math Options*

*[2] Major courses can be chosen from any of the functional areas once the prerequisites have been satisfied.*

*[3]The selection of a First Year Seminar is likely to fulfill requirements both for the First Year Seminar and a General Education Requirement. Thus, the First Year Seminar will not add to the total credits for the semester. Talk with your advisor if you have any questions.*

## General Business Minor

A minor in general Business is available to non-business students with the exception of students majoring in Chemistry-Business, Electronics-Business and Economics (KSOM only). It consists of 21 credits:

## Requirements

The last five must be taken after the other courses, and may be taken no earlier than the junior year. Minors in Accounting, Accounting Information Systems, Economics, Electronic Commerce, Entrepreneurship, Finance, Management, and Operations Management are described under those respective programs.

- ECO 101 - (S) Current Economic Issues
- ACC 253 - Financial Accounting
- ECO/IB 351 - (D) Environment of International Business
- FIN 251 - Introduction to Finance
- MGT 351 - Principles of Management and Entrepreneurship I
- MKT 351 - Introduction to Marketing
- OIM 471 - Business Information Management

## Business, AS

The Associate of Science degree in career-related fields has been designed as the natural companion to the Bachelor of Science degrees in those majors.

## Associate in Science: Business Curriculum

| | ***Department and Number - Descriptive Title of Course*** | ***Credit*** |
|---|---|---|
| **General Education** | | |
| GE QUAN/ELECT | MATH 106 - (Q) Quantitative Methods I[1]– MATH 107 - (Q) Quantitative Methods II | 6 |
| GE ELECT | ELECT – Free Elective | 3 |
| GE S/BH | ECO 153 - (S) Principles of Microeconomics – ECO 154 - (S) Principles of Macroeconomics | 6 |
| GE WRTG | WRTG 107 - (FYW) Composition | 3 |
| GE SPCH | BUS 184 - (EP) Oral and Information Proficiency | 3 |
| GE HUMN | HUMN ELECT – Humanities Electives[2] | 12 |
| GE PHIL | PHIL 120 - Introduction to Philosophy | 3 |
| GE T/RS | T/RS 121 - Theology I: Introduction to the Bible | 3 |
| GE PHIL-T/RS | PHIL 210 - Ethics or T/RS 122 - Theology II: Introduction to Christian Theology | 3 |
| **Major/Cognates** | | |
| | MGT 351 - Principles of Management and Entrepreneurship I | 3 |
| | OIM 251 - Excel for Business Applications | 1 |
| | ACC 253 - Financial Accounting – ACC 254 - Managerial Accounting | 6 |

| | | |
|---|---|---|
| | STAT 251 - (Q) Statistics for Business I – STAT 252 - (Q) Statistics for Business II | 6 |
| | MGT 251 - Legal Environment of Business | 3 |
| | BUS 150 - Career and Professional Development | 1 |
| | **Total: 62 Credits** | |

[1]*Math placement testing may determine additional math prerequisites in addition to the math specified for this degree program.*

[2]*Must take two courses in history, literature or foreign language. The other 3 credits will be in one of the other two areas, including Art and Music.*

*Note: Students who complete the A.S. in Business and wish to continue toward the B.S. in Accounting, Economics, Finance, Management, Marketing, or Operations and Information Management must have attained a 2.0 in major and cognate courses and an overall G.P.A. of 2.0.*

# Economics and Finance

## Economics

### Faculty

Iordanis Petsas, Ph.D., *Chair*

Aram Balagyozyan, Ph.D.

Jinghan Cai, Ph.D.

Satyajit Ghosh, Ph.D.

Ioannis N. Kallianiotis, Ph.D.

Hong V. Nguyen, Ph.D.

Christos Pargianas, Ph.D.

John A. Ruddy, D.P.S., C.F.A.

Edward M. Scahill, Ph.D.

Susan Trussler, Ph.D.

### Overview

The major in Economics, which is available both through the Kania School of Management and the College of Arts and Sciences, provides an excellent training for understanding the economic events and developments of our complex industrialized society and of the world economies. It equips the student with training and background needed to assume responsible decision-making positions in the financial sector, industry, commerce, banking, or government service. It also gives a strong preparation for the pursuit of graduate studies in Economics or the law.

### Course Information

Courses for **Economics** are listed under the prefixes ECO and ECO/IB. For more information on all courses offered, visit our Course Descriptions page.

### Finance and Economics Double Majors

For students double-majoring in Economics and Finance, Finance Must be their first declared major.

# Economics, BS (KSOM)

## Economics Curriculum

| | *Department and Number - Descriptive Title of Course* | *Fall Cr.* | *Spr. Cr.* |
|---|---|---|---|
| **First Year** | | | |
| MAJOR (GE S/BH) | ECO 153 - (S) Principles of Microeconomics — ECO 154 - (S) Principles of Macroeconomics | 3 | 3 |
| GE SPCH - WRTG | BUS 140 - (FYDT,FYOC) Business Information & Oral Proficiency — WRTG 107 - (FYW) Composition | 3 | 3 |
| GE PHIL–T/RS | PHIL 120 - Introduction to Philosophy — T/RS 121 - Theology I: Introduction to the Bible | 3 | 3 |
| GE QUAN | MATH ELECT - Math Option (two courses)[1] | 3-4 | 3-4 |
| GE HUMN | HUMN ELECT - Humanities Electives[2] | 3 | 3 |
| GE FSEM | First Year Seminar[5] | | |
| BUS CORE | BUS 150 - Career and Professional Development | | 1 |
| | | **15-16** | **16-17** |
| **Second Year** | | | |
| MAJOR | ECO 361 - Intermediate Microeconomics — ECO 362 - Intermediate Macroeconomics | 3 | 3 |
| COGNATE | STAT 253 - Statistics for Economics[3] | 3 | |
| COGNATE | ACC 253 - Financial Accounting[3] | 3 | |
| COGNATE | COGNATE ELECT - Cognate Elective[3] | | 3 |
| GE PHIL - T/RS | PHIL 210 - Ethics — T/RS 122 - Theology II: Introduction to Christian Theology | 3 | 3 |
| GE NSCI | NSCI ELECT - Natural Science Elective | | 3 |
| GE HUMN | HUMN ELECT - Humn. Elective (HIST 110–HIST 111 recommended) | 3 | |
| GE ELECT | FREE ELECT - Free Elective[4] | | 3 |
| BUS CORE | OIM 251 - Excel for Business Applications | 1 | |
| | | **16** | **15** |
| **Third Year** | | | |
| MAJOR | ECO/IB 375 - International Economics | 3 | |
| MAJOR | ECO 363 - (EPW) Applied Econometrics | | 3 |

| | | | |
|---|---|---|---|
| MAJOR | ECO ELECT - Economics Elective | 3 | |
| COGNATE | ECO/IB 351 - (D) Environment of International Business[3] | 3 | |
| COGNATE | FIN 251 - Introduction to Finance — COGNATE ELECT - Cognate Electives3 | 3 | 6 |
| COGNATE | COGNATE ELECT - Cognate Elective[3] | 3 | |
| GE PHIL or T/RS | PHIL ELECT - Philosophy Elective or T/RS ELECT - T/RS Elective | | 3 |
| GE ELECT | FREE ELECT - Free Elective | | 3 |
| GE NSCI | NSCI ELECT - Natural Science Elective | 3 | |
| | | **18** | **15** |
| **Fourth Year** | | | |
| MAJOR | ECO 460 - Monetary and Financial Economics | 3 | |
| MAJOR | ECO 490 - Economics Seminar — ECO 471 - Advanced Macroeconomics | 3 | 3 |
| COGNATE | COGNATE ELECT - Cognate Elective[3] | 3 | 3 |
| GE HUMN | HUMN ELECT - Humanities Elective | | 3 |
| GE ELECT | FREE ELECT - Free Electives | 6 | 6 |
| | | **15** | **15** |
| | **Total: 125 - 127 Credits** | | |

[1] *See note on Math Options.*

[2] *If EDUC 113 is required in the first semester, it is taken in place of a humanities elective and is counted as a GE free elective. One GE free elective in the fourth year must then be taken as a humanities elective.*

[3] *Economics majors may apply up to 6 cognate credits toward a Math minor. Students taking the sequence open to Math majors are strongly urged to complete the calculus sequence by taking MATH 222, particularly if they plan on pursuing graduate studies. Economics majors registered in the Kania School of Management will apply 9 of their elective cognate credits to one of the following areas (exceptions require the permission of the KSOM Dean): Accounting, Finance, International Business, Management, Marketing, Operations Management. The remaining cognate credits may be applied to the social sciences or from the other business areas (but note that no more than 30 credits altogether can be taken in business subjects, exclusive of Economics courses). Care must be taken to observe prerequisites.*

[4] *If a third math course is required, it replaces this GE elective.*

[5] *The selection of a First Year Seminar is likely to fulfill requirements both for the First Year Seminar and a General Education Requirement. Thus, the First Year Seminar will not add to the total credits for the semester. Talk with your advisor if you have any questions.*

## Economics Minor (KSOM)

18 credits consisting of:

- ECO 153 - (S) Principles of Microeconomics
- ECO 154 - (S) Principles of Macroeconomics
- ECO 361 - Intermediate Microeconomics

and

- ECO 362 - Intermediate Macroeconomics
- plus two upper-level economics courses

Kania School students may not use ECO/IB 351.

For students majoring in Finance, Financial Services Track, and minoring in Economics, ECO 361 or ECO 362 must be replaced by another upper-level economics elective course.

# Finance

## Faculty

Iordanis Petsas, Ph.D., *Chair*

Aram Balagyozyan, Ph.D.

Jinghan Cai, Ph.D.

Satyajit Ghosh, Ph.D.

Ioannis N. Kallianiotis, Ph.D.

Hong V. Nguyen, Ph.D.

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John A. Ruddy, D.P.S., C.F.A.

Edward M. Scahill, Ph.D.

Susan Trussler, Ph.D.

## Overview

The practitioner in finance must be familiar with the tools and techniques available and, given the resources and constraints of organizations and the general economic environment in which the organization operates, be adept at efficiently managing the fiscal resources of the organization, including the raising of funds and their short-term and long-term investment. Career opportunities in finance include:

*Banking* – Bank Examiner, Trust Officer
*Investments* – Financial Analyst, Security Broker
*Corporate* – Financial Analyst, Working Capital Management

The department offers two tracks within the Finance major; 1) Financial Services Track and 2) Corporate Finance Track.

## Course Information

Courses for Finance are listed under the prefixes FIN and FIN/IB. For more information these and on all courses offered, visit our Course Descriptions page.

## Finance and Economics Double Majors

For students double-majoring in Economics and Finance, Finance Must be their first declared major.

## Affiliated Programs

For information on programs affiliated with the Department of Economics and Finance visit **International Business, BS** and **Environmental Studies Concentration**.

Click here for information on the Accelerated Master's Degree and Combined Baccalaureate/Master's Degree Programs.

# Finance, BS

## Financial Services Track Curriculum

| | *Department and Number - Descriptive Title of Course* | Fall Cr. | Spr. Cr. |
|---|---|---|---|
| **First Year** | | | |
| GE S/BH | ECO 153 - (S) Principles of Microeconomics — ECO 154 - (S) Principles of Macroeconomics | 3 | 3 |
| GE WRTG-SPCH | WRTG 107 - (FYW) Composition — BUS 140 - (FYDT,FYOC) Business Information & Oral Proficiency | 3 | 3 |
| GE PHIL-T/RS | PHIL 120 - Introduction to Philosophy — T/RS 121 - Theology I: Introduction to the Bible | 3 | 3 |
| GE QUAN | MATH ELECT - Mathematics Elective[1] | 3 | 3 |
| GE HUMN | HUMN ELECT - Humanities Electives[2] | 3 | 3 |
| GE FSEM | First Year Seminar[4] | | |
| BUS CORE | BUS 150 - Career and Professional Development | | 1 |
| | | **15** | **16** |
| **Second Year** | | | |
| BUS CORE | ACC 251 - Financial Accounting I — ACC 252 - Financial Accounting II | 3 | 3 |
| BUS CORE | STAT 251 - (Q) Statistics for Business I — STAT 252 - (Q) Statistics for Business II | 3 | 3 |
| BUS CORE | MGT 251 - Legal Environment of Business | | 3 |
| BUS CORE | OIM 251 - Excel for Business Applications | 1 | |
| GE PHIL-T/RS | PHIL 210 - Ethics — T/RS 122 - Theology II: Introduction to Christian Theology | 3 | 3 |
| GE NSCI | NSCI ELECT- Natural Science Elective | 3 | |
| MAJOR | FIN 251 - Introduction to Finance | | 3 |
| GE ELECT | FREE ELECT - Free Elective[3] | 3 | |
| | | **16** | **15** |
| **Third Year** | | | |
| MAJOR | ECO 361 - Intermediate Microeconomics — ECO 362 - Intermediate Macroeconomics | 3 | 3 |
| MAJOR | ECO 460 - Monetary and Financial Economics | | 3 |
| MAJOR | FIN 362 - Investments | | 3 |

| | | | |
|---|---|---|---|
| BUS CORE | MGT 351 - Principles of Management and Entrepreneurship I — MGT 352 - Principles of Management and Entrepreneurship II | 3 | 3 |
| BUS CORE | FIN 363 - Intermediate Finance — MKT 351 - Introduction to Marketing | 3 | 3 |
| BUS CORE | OIM 351 - Introduction to Business Analytics — OIM 352 - Introduction to Operations Management | 3 | 3 |
| BUS CORE | ECO/IB 351 - (D) Environment of International Business | 3 | |
| GE PHIL-T/RS | PHIL ELECT or T/RS ELECT - Philosophy Elective or Theology Elective | 3 | |
| | | **18** | **18** |
| **Fourth Year** | | | |
| MAJOR | FIN ELECT - Finance Elective | | 3 |
| MAJOR | FIN 472 - Portfolio Management — FIN/IB 475 - International Finance | 3 | 3 |
| BUS CORE | OIM 471 - Business Information Management | | 3 |
| BUS CORE | MGT 455 - Business Policy and Strategy | | 3 |
| GE HUMN | HUMN ELECT - Humanities Elective | | 3 |
| GE ELECT | FREE ELECT- Free Electives | 6 | |
| GE HUMN | HUMN ELECT - Humanities Elective | 3 | |
| GE NSCI | NSCI ELECT - Natural Science Elective | 3 | |
| | | **15** | **15** |
| | | | **Total: 128 Credits** |

[1]*See note on Math Options.*

[2]*If EDUC 113 is required in the first semester, it is taken in place of a humanities elective and is counted as a GE free elective. One GE free elective in the fourth year must then be taken as a humanities elective.*

[3]*If a third math course is required, it replaces this GE elective.*

[4] *The selection of a First Year Seminar is likely to fulfill requirements both for the First Year Seminar and a General Education Requirement. Thus, the First Year Seminar will not add to the total credits for the semester. Talk with your advisor if you have any questions.*

## Corporate Finance Track Curriculum

| | ***Department and Number - Descriptive Title of Course*** | **Fall Cr.** | **Spr. Cr.** |
|---|---|---|---|
| **First Year** | | | |
| GE S/BH | ECO 153 - (S) Principles of Microeconomics — ECO 154 - (S) Principles of Macroeconomics | 3 | 3 |

| | | | |
|---|---|---|---|
| GE WRTG-SPCH | WRTG 107 - (FYW) Composition — BUS 140 - (FYDT,FYOC) Business Information & Oral Proficiency | 3 | 3 |
| GE PHIL-T/RS | PHIL 120 - Introduction to Philosophy — T/RS 121 - Theology I: Introduction to the Bible | 3 | 3 |
| GE QUAN | MATH ELECT - Mathematics Electives[1] | 3 | 3 |
| GE HUMN | HUMN ELECT - Humanities Electives[2] | 3 | 3 |
| GE FSEM | First Year Seminar[4] | | |
| BUS CORE | BUS 150 - Career and Professional Development | | 1 |
| | | **15** | **16** |
| **Second Year** | | | |
| BUS CORE | ACC 251 - Financial Accounting I — ACC 252 - Financial Accounting II | 3 | 3 |
| BUS CORE | STAT 251 - (Q) Statistics for Business I — STAT 252 - (Q) Statistics for Business II | 3 | 3 |
| BUS CORE | MGT 251 - Legal Environment of Business | | 3 |
| BUS CORE | OIM 251 - Excel for Business Applications | 1 | |
| GE PHIL-T/RS | PHIL 210 - Ethics — T/RS 122 - Theology II: Introduction to Christian Theology | 3 | 3 |
| GE NSCI | NSCI ELECT- Natural Science Elective | 3 | |
| MAJOR | FIN 251 - Introduction to Finance | | 3 |
| GE ELECT | FREE ELECT - Free Elective[3] | 3 | |
| | | **16** | **15** |
| **Third Year** | | | |
| MAJOR | ACC 361 - Intermediate Accounting I — ACC 362 - Intermediate Accounting II | 3 | 3 |
| MAJOR | ECO 460 - Monetary and Financial Economics | | 3 |
| MAJOR | FIN 362 - Investments | | 3 |
| BUS CORE | MGT 351 - Principles of Management and Entrepreneurship I — MGT 352 - Principles of Management and Entrepreneurship II | 3 | 3 |
| BUS CORE | FIN 363 - Intermediate Finance — MKT 351 - Introduction to Marketing | 3 | 3 |
| BUS CORE | OIM 351 - Introduction to Business Analytics — OIM 352 - Introduction to Operations Management | 3 | 3 |
| BUS CORE | ECO/IB 351 - (D) Environment of International Business | 3 | |
| GE PHIL-T/RS | PHIL ELECT or T/RS ELECT - Philosophy Elective or Theology Elective | 3 | |

| | | | |
|---|---|---|---|
| | | **18** | **18** |
| **Fourth Year** | | | |
| MAJOR | FIN ELECT - Finance Elective | | 3 |
| MAJOR | FIN 476 - Case Course in Corporate Finance — FIN/IB 475 - International Finance | 3 | 3 |
| BUS CORE | OIM 471 - Business Information Management | | 3 |
| BUS CORE | MGT 455 - Business Policy and Strategy | | 3 |
| GE HUMN | HUMN ELECT - Humanities Elective | | 3 |
| GE ELECT | FREE ELECT - Free Electives | 6 | |
| GE HUMN | HUMN ELECT - Humanities Elective | 3 | |
| GE NSCI | NSCI ELECT - Natural Science Elective | 3 | |
| | | **15** | **15** |
| | | | **Total: 128 Credits** |

[1]*See note on Math Options.*

[2]*If EDUC 113 is required in the first semester, it is taken in place of a humanities elective and is counted as a GE free elective. One GE free elective in the fourth year must then be taken as a humanities elective.*

[3]*If a third math course is required, it replaces this GE elective.*

[4] *The selection of a First Year Seminar is likely to fulfill requirements both for the First Year Seminar and a General Education Requirement. Thus, the First Year Seminar will not add to the total credits for the semester. Talk with your advisor if you have any questions.*

## Finance Minor

18 credits consisting of:

- ECO 153 - (S) Principles of Microeconomics
- ECO 154 - (S) Principles of Macroeconomics
- ECO/IB 351 - (D) Environment of International Business
- FIN 251 - Introduction to Finance

AND

Two upper level Finance courses from:

- FIN 362 - Investments
- FIN 363 - Intermediate Finance
- FIN 471 - Derivative Securities
- FIN 472 - Portfolio Management
- FIN/IB 475 - International Finance

## Finance, BS/MBA

The Economics and Finance Department offers interested and qualified undergraduate economics and finance students the opportunity to earn both a Bachelor of Science degree in economics or finance, and a Master of Business Administration degree. With judicious course scheduling, most students can complete the program within five academic years.

Students interested in this accelerated BS/MBA degree program should consult their academic advisors by the beginning of their sophomore year and apply to Graduate Admissions as early as a month prior to the start of the second semester of their junior year at The University of Scranton. Criteria for acceptance into the combined program include the student's previous academic performance, GMAT score (waived for students with at least a 3.50 GPA), letters of recommendation and statement of purpose. Students must adhere to requirements as listed in the *Graduate Studies Catalog.*

# International Business

Susan Trussler, Ph.D., *Program Director*

## Overview

The major in International Business is an interdisciplinary program designed for those Business students who seek an understanding of the complex world within which multinational corporations, national and international agencies, and individuals interact. In the 21st century all business activities are becoming more and more international in nature; it is imperative that those who wish to succeed in this international setting have a clear understanding not only of the theory and practice of the core business disciplines, but also of their interaction with the geographic, cultural, and political environments within which multinational corporations operate, and international trade and investment occur. This major is designed to prepare students who wish to work in the international arena – either overseas or in the United States.

## Course Information

For information on **International Business** courses, visit the International Business Courses page. For more information on all courses offered, visit our Course Descriptions page.

## International Business, BS

## International Business Curriculum

| | *Department and Number - Descriptive Title of Course* | *Fall Cr.* | *Spr. Cr.* |
|---|---|---|---|
| **First Year** | | | |
| GE S/BH | ECO 153 - (S) Principles of Microeconomics – ECO 154 - (S) Principles of Macroeconomics | 3 | 3 |
| GE SPCH – GE WRTG | BUS 140 - (FYDT,FYOC) Business Information & Oral Proficiency – WRTG 107 - (FYW) Composition | 3 | 3 |
| GE PHIL | PHIL 120 - Introduction to Philosophy– PHIL 210 - Ethics | 3 | 3 |
| GE HUMN | HUMN ELECT - Foreign Language Electives | 3 | 3 |
| GE QUAN | MATH ELECT - (Normally MATH 107 – MATH 108, or MATH 114 – MATH 221) | 3-4 | 3-4 |
| GE FSEM | First Year Seminar* | | |
| BUS CORE | BUS 150 - Career and Professional Development | | 1 |

| | | 15-16 | 16-17 |
|---|---|---|---|
| **Second Year** | | | |
| BUS CORE | ACC 253 - Financial Accounting – ACC 254 - Managerial Accounting | 3 | 3 |
| BUS CORE | STAT 251 - (Q) Statistics for Business I – STAT 252 - (Q) Statistics for Business II | 3 | 3 |
| BUS CORE | MGT 251 - Legal Environment of Business | 3 | |
| BUS CORE | OIM 251 - Excel for Business Applications | 1 | |
| GE ELECT | LANG ELECT - Foreign Language Electives | 3 | 3 |
| GE T/RS | T/RS 121 - Theology I: Introduction to the Bible – T/RS 122 - Theology II: Introduction to Christian Theology | 3 | 3 |
| GE NSCI | NSCI ELECT - Natural Science Electives | | 3 |
| | | **16** | **15** |
| **Third Year** | | | |
| BUS CORE | ECO/IB 351 - (D) Environment of International Business | 3 | |
| MAJOR | IB ELECT - Advanced IB Electives | | 6 |
| BUS CORE | MGT 351 - Principles of Management and Entrepreneurship I – MGT 352 - Principles of Management and Entrepreneurship II | 3 | 3 |
| BUS CORE | FIN 251 - Introduction to Finance – MKT 351 - Introduction to Marketing | 3 | 3 |
| BUS CORE | OIM 351 - Introduction to Business Analytics – OIM 352 - Introduction to Operations Management | 3 | 3 |
| GE PHIL or T/RS | PHIL ELECT- Philosophy Elective or T/RS - T/RS Elective | 3 | |
| GE HUMN | HUMN ELECT - Regional/Global Electives | 3 | 3 |
| | | **18** | **18** |
| **Fourth Year** | | | |
| MAJOR | IB ELECT - Advanced IB Electives | 6 | 6 |
| BUS CORE | MGT 455 - Business Policy and Strategy | | 3 |
| BUS CORE | OIM 471 - Business Information Management | 3 | |
| GE NSCI | NSCI ELECT – Natural Science Elective | 3 | |
| GE ELECT | FREE ELECT - Free Electives | 3 | 3 |
| | | **15** | **12** |

| | |
|---|---|
| | **Total: 125-127 Credits** |

*If EDUC 113 is required, it is taken both as a First Year Seminar and in place of PHIL 120 in fall. Then PHIL 120 is moved to the spring of the first year. PHIL 210 will be taken in the second year.*

*If a third math course is required, GE free electives are moved from the fourth to the second year. The NSCI sequence is moved to the fourth year.*

*For students requiring EDUC 113 and a third math course, additional credits are needed to complete the foreign-language requirement.*

*Regional Studies electives are courses that focus on specific countries/regions of the world (not U.S.), including culture courses taught in a foreign language.*

**The selection of a First Year Seminar is likely to fulfill requirements both for the First Year Seminar and a General Education Requirement. Thus, the First Year Seminar will not add to the total credits for the semester. Talk with your advisor if you have any questions.*

# Marketing, Management and Entrepreneurship

## Management

### Faculty

Satya P. Chattopadhyay, Ph.D., *Chair*

Ovidiu C. Cocieru, Ph.D.

Ann E. Nancy Cummings, M.B.A.

Robert C. Giambatista, Ph.D.

Irene Goll, Ph.D.

Kaeun Kim, Ph,D.

Taewan Kim, Ph.D.

Robert L. McKeage, Ph.D.Gregory B. O'Connell, J.D.

### Overview

Management involves getting things done through people. The Management major provides students with a broad-based, generalist background that is designed to provide graduates with the skills and tools needed to cope successfully with the challenging roles and expectations that are sweeping through organizations. "Getting things done" involves analyzing, designing and continuously improving an organization's structure and processes. "Through people" involves leading, motivating, and working effectively with other people in teams and other settings. Management courses use a variety of teaching techniques that involve a high degree of student/faculty interaction – including experiential exercises, student presentations, simulations and team activities – to develop self-analytic skill, team and communication skills. Students working with their faculty and advisors can choose from a variety of courses to design a program of study that will prepare them to enter a variety of positions in private industry and other organizations.

### Course Information

Courses for **Management** are listed under the prefixes MGT and BUAD. For more information on these and all courses offered, visit our Course Descriptions page.

# Management, BS

## Management Curriculum

| | *Department and Number - Descriptive Title of Course* | *Fall Cr.* | *Spr. Cr.* |
|---|---|---|---|
| **First Year** | | | |
| GE S/BH | ECO 153 - (S) Principles of Microeconomics – ECO 154 - (S) Principles of Macroeconomics | 3 | 3 |
| GE SPCH–WRTG | BUS 140 - (FYDT,FYOC) Business Information & Oral Proficiency – WRTG 107 - (FYW) Composition | 3 | 3 |
| GE PHIL–T/RS | PHIL 120 - Introduction to Philosophy – T/RS 121 - Theology I: Introduction to the Bible | 3 | 3 |
| GE QUAN | MATH ELECT - Math Option (two courses)[1] | 3-4 | 3-4 |
| GE HUMN | HUMN ELECT - Humanities Electives[2] | 3 | 3 |
| GE FSEM | First Year Seminar[5] | | |
| BUS CORE | BUS 150 - Career and Professional Development | | 1 |
| | | **15-16** | **16-17** |
| **Second Year** | | | |
| BUS CORE | ACC 253 - Financial Accounting – ACC 254 - Managerial Accounting | 3 | 3 |
| BUS CORE | STAT 251 - (Q) Statistics for Business I – STAT 252 - (Q) Statistics for Business II | 3 | 3 |
| BUS CORE | MGT 251 - Legal Environment of Business | 3 | |
| BUS CORE | OIM 251 - Excel for Business Applications | 1 | |
| GE PHIL–T/RS | PHIL 210 - Ethics – T/RS 122 - Theology II: Introduction to Christian Theology | 3 | 3 |
| GE NSCI | NSCI ELECT - Natural Science Elective | | 3 |
| GE HUMN | HUMN ELECT - Humanities Elective | 3 | |
| GE ELECT | FREE ELECT - Free Elective[3] | | 3 |
| | | **16** | **15** |
| **Third Year** | | | |
| MAJOR | MGT ELECT - Management Electives[4] | | 6 |
| BUS CORE | MGT 351 - Principles of Management and Entrepreneurship I – MGT 352 - Principles of Management and Entrepreneurship II | 3 | 3 |
| BUS CORE | MKT 351 - Introduction to Marketing – FIN 251 - Introduction to Finance | 3 | 3 |

| | | | |
|---|---|---|---|
| BUS CORE | OIM 351 - Introduction to Business Analytics – OIM 352 - Introduction to Operations Management | 3 | 3 |
| BUS CORE | ECO/IB 351 - (D) Environment of International Business | 3 | |
| GE PHIL or T/RS | PHIL ELECT- Philosophy Elective – T/RS - T/RS Elective | 3 | |
| GE NSCI | NSCI ELECT - Natural Science Elective | 3 | |
| | | **18** | **15** |
| **Fourth Year** | | | |
| MAJOR | MGT ELECT - Management Electives[4] | 6 | 6 |
| BUS CORE | MGT 455 - Business Policy and Strategy | 3 | |
| BUS CORE | OIM 471 - Business Information Management | | 3 |
| GE HUMN | HUMN ELECT - Humanities Elective | 3 | |
| GE ELECT | FREE ELECT - Free Electives | 3 | 6 |
| | | **15** | **15** |
| | | | **Total: 125-127 Credits** |

[1]*See note on Math Options.*

[2]*If EDUC 113 is required in the first semester, it is taken in place of a humanities elective and is counted as a GE free elective. One GE free elective in the fourth year must then be taken as a humanities elective.*

[3] *If a third math course is required, it replaces this GE elective.*

[4] *In consultation with their advisors, Management majors may choose either of the two following tracks: People and Teams (at least three courses from MGT 361, MGT 362, MGT 471, MGT 474) or Structures and Systems MGT 460, MGT 461, MGT 462). A total of 18 credits must be taken in Management electives.*

[5] *The selection of a First Year Seminar is likely to fulfill requirements both for the First Year Seminar and a General Education Requirement. Thus, the First Year Seminar will not add to the total credits for the semester. Talk with your advisor if you have any questions.*

## Management Minor

A minor in Management requires MGT 351, MGT 352, and four upper-level electives in Management (not including MGT 455). A student may choose to focus these electives in one of the tracks

# Marketing

## Faculty

Satya P. Chattopadhyay, Ph.D., *Chair*

Peter Andersen, Ph.D.

Abhijit Roy, Ph.D.

John M. Zych, D.B.A.

## Overview

Marketing is "people oriented," focusing on the interaction between the firm and its market (buyers). The marketer explores buyer needs to develop new products and to position them so that buyers see their value. Marketing majors are introduced not only to the visible marketing tools: products, salespeople, and the various selling and promotional techniques, but also to less visible marketing functions: marketing research and the firm's interactions with wholesalers and retailers. The student will develop the quantitative and qualitative skills needed to succeed in a real business environment.

## Course Information

Courses for **Marketing** are listed under the prefixes MKT and MKT/IB. For more information on these and all courses offered, visit our Course Descriptions page.

## Affiliated Programs

For information on programs affiliated with the Department of Marketing, Management and Entrepreneurship visit Business Administration, BS and International Business, BS.

# Marketing, BS

## Marketing Curriculum

| | *Department and Number - Descriptive Title of Course* | *Fall Cr.* | *Spr. Cr.* |
|---|---|---|---|
| **First Year** | | | |
| GE S/BH | ECO 153 - (S) Principles of Microeconomics – ECO 154 - (S) Principles of Macroeconomics | 3 | 3 |
| GE SPCH–WRTG | BUS 140 - (FYDT,FYOC) Business Information & Oral Proficiency – WRTG 107 - (FYW) Composition | 3 | 3 |
| GE PHIL–T/RS | PHIL 120 - Introduction to Philosophy – T/RS 121 - Theology I: Introduction to the Bible | 3 | 3 |
| GE QUAN | MATH ELECT - Math Option (two courses)[1] | 3-4 | 3-4 |
| GE HUMN | HUMN ELECT - Humanities Electives[2] | 3 | 3 |
| GE FSEM | First Year Seminar[4] | | |
| BUS CORE | BUS 150 - Career and Professional Development | | 1 |
| | | **15-16** | **16-17** |
| **Second Year** | | | |
| BUS CORE | ACC 253 - Financial Accounting – ACC 254 - Managerial Accounting | 3 | 3 |
| BUS CORE | STAT 251 - (Q) Statistics for Business I – STAT 252 - (Q) Statistics for Business II | 3 | 3 |
| BUS CORE | OIM 251 - Excel for Business Applications | 1 | |
| BUS CORE | MGT 251 - Legal Environment of Business | 3 | |

| | | | |
|---|---|---|---|
| GE PHIL–T/RS | PHIL 210 - Ethics – T/RS 122 - Theology II: Introduction to Christian Theology | 3 | 3 |
| GE NSCI | NSCI ELECT - Natural Science Elective | | 3 |
| GE HUMN | HUMN ELECT - Humanities Elective | 3 | |
| GE ELECT | FREE ELECT - Free Elective[3] | | 3 |
| | | **16** | **15** |
| **Third Year** | | | |
| MAJOR | MKT 361 - Marketing Research | | 3 |
| MAJOR | MKT 362 - Consumer Behavior | | 3 |
| BUS CORE | MKT 351 - Introduction to Marketing – FIN 251 - Introduction to Finance | 3 | 3 |
| BUS CORE | MGT 351 - Principles of Management and Entrepreneurship I – MGT 352 - Principles of Management and Entrepreneurship II | 3 | 3 |
| BUS CORE | OIM 351 - Introduction to Business Analytics – OIM 352 - Introduction to Operations Management | 3 | 3 |
| BUS CORE | ECO/IB 351 - (D) Environment of International Business | 3 | |
| GE PHIL or T/RS | PHIL ELECT - Philosophy Elective –T/RS - T/RS Elective | 3 | |
| GE NSCI | NSCI ELECT - Natural Science Elective | 3 | |
| | | **18** | **15** |
| **Fourth Year** | | | |
| MAJOR | MKT 470 - Marketing Communications – MKT 476 - Marketing Strategy | 3 | 3 |
| MAJOR | MKT ELECT - Marketing Electives | 3 | 3 |
| BUS CORE | MGT 455 - Business Policy and Strategy | 3 | |
| BUS CORE | OIM 471 - Business Information Management | | 3 |
| GE HUMN | HUMN ELECT - Humanities Elective | 3 | |
| GE ELECT | FREE ELECT - Free Electives | 3 | 6 |
| | | **15** | **15** |
| | | | **Total: 125-127 Credits** |

[1]*See note on Math Options.*

[2]*If EDUC 113 is required in the first semester, it is taken in place of a humanities elective and is counted as a GE free elective. One GE free elective in the fourth year must then be taken as a humanities elective.*

[3] *If a third math course is required, it replaces this GE elective.*

[4] *The selection of a First Year Seminar is likely to fulfill requirements both for the First Year Seminar and a General Education Requirement. Thus, the First Year Seminar will not add to the total credits for the semester. Talk with your advisor if you have any questions.*

## Management Minor

A minor in Management requires MGT 351, MGT 352, and four upper-level electives in Management (not including MGT 455). A student may choose to focus these electives in one of the tracks.

# Entrepreneurship

Leila Soleimani, Ph.D.

## Overview

The Entrepreneurship major and minor are designed to provide students with meaningful skills, attitudes, and behaviors necessary for starting new businesses, working in family businesses, or joining small entrepreneurial businesses. Traditional businesses also highly value employees with this major or minor, since our graduates from this program are action-oriented and have "learned by doing." Although only a minority of our students will start businesses immediately upon graduation, the goal is to develop a true "Entrepreneurial Mindset" in all of our students. This mindset includes constantly embracing opportunities, providing value to others, and striving to reap rewards from efforts made.

This program is practice-oriented and includes a variety of projects, mentoring opportunities, possible internships, and networking with successful entrepreneurs, angel investors, and business people from the region and beyond. There are also opportunities to launch a student business or work with an existing student business. Study abroad opportunities are also offered.

The Entrepreneurship minor is open to business and non-business students, and the major is open to business school students only. Students in the major and minor begin classes in their junior year and move through the program as a cohort. Each year's cohort of majors and minors is capped at approximately 20 students.

## Course Information

Courses for **Entrepreneurship** are listed under the prefix ENTR. For more information on these and all courses offered, visit our Course Descriptions page.

# Entrepreneurship, BS

## Entrepreneurship Curriculum

| | ***Department and Number - Descriptive Title of Course*** | ***Fall Cr.*** | ***Spr. Cr.*** |
|---|---|---|---|
| **First Year** | | | |
| GE S/BH | ECO 153 - (S) Principles of Microeconomics – ECO 154 - (S) Principles of Macroeconomics | 3 | 3 |
| BUS CORE | BUS 150 - Career and Professional Development | 1 | |
| GE SPCH-WRTG | BUS 140 - (FYDT,FYOC) Business Information & Oral Proficiency – WRTG 107 - (FYW) Composition | 3 | 3 |
| GE PHIL-T/RS | PHIL 120 - Introduction to Philosophy – T/RS 121 - (P) Theology I: Introduction to the Bible | 3 | 3 |
| GE QUAN | MATH ELECT - Math Option (two courses)[1] | 3-4 | 3-4 |

| | | | |
|---|---|---|---|
| GE HUMN | HUMN ELECT - Humanities Electives [2] | 3 | 3 |
| GE FSEM | First Year Seminar[3] | | |
| | | **16-17** | **15-16** |
| **Second Year** | | | |
| BUS CORE | ACC 253 - Financial Accounting – ACC 254 - Managerial Accounting | 3 | 3 |
| BUS CORE | STAT 251 - (Q) Statistics for Business I – STAT 252 - (Q) Statistics for Business II | 3 | 3 |
| BUS CORE | OIM 251 - Excel for Business Applications | | 1 |
| BUS CORE | MGT 251 - Legal Environment of Business | 3 | |
| GE PHIL-T/RS | PHIL 210 - Ethics – T/RS 122 - (P) Theology II: Introduction to Christian Theology | 3 | 3 |
| GE NSCI | NSCI ELECT - Natural Science Electives | 3 | 3 |
| GE HUMN | HUMN ELECT - Humanities Elective | | 3 |
| | | **15** | **16** |
| **Third Year** | | | |
| MAJOR | ENTR 372 - The Entrepreneurial Mindset | 3 | |
| MAJOR | ENTR 374 - Entrepreneurial Resource Acquisition and Management | | 3 |
| BUS CORE/MAJOR | MGT 351 - Principles of Management and Entrepreneurship I | 3 | |
| BUS CORE | MKT 351 - Introduction to Marketing – FIN 251 - Introduction to Finance | 3 | 3 |
| BUS CORE | OIM 351 - Introduction to Business Analytics – OIM 352 - Introduction to Operations Management | 3 | 3 |
| BUS CORE | ECO/IB 351 - (D) Environment of International Business | 3 | |
| GE PHIL or T/RS | PHIL ELECT - Philosophy Elective or T/RS ELECT - Theology Elective | 3 | |
| BUS CORE | MGT 352 - Principles of Management and Entrepreneurship II | | 3 |
| GE ELECT | GE ELECT - GE Elective | | 3 |
| MAJOR | ENTR 477 - (EPW) The Entrepreneurial Business Plan | | 3 |
| | | **18** | **18** |
| **Fourth Year** | | | |
| MAJOR | ENTR 479 - Hooking the Shark | 3 | |

| | | | |
|---|---|---|---|
| MAJOR | ENTR 481 - Global Practicum [4] | | 3 |
| BUS CORE | MGT 455 - Business Policy and Strategy | 3 | |
| BUS CORE | OIM 471 - Business Information Management | | 3 |
| GE HUMN | HUMN ELECT - Humanities Elective | | 3 |
| GE ELECT | FREE ELECT - Free Electives | 3 | 6 |
| MAJOR | ENTR ELECT - Major Elective | 3 | |
| | | **12** | **15** |
| | **TOTAL: 125 - 127 Credits** | | |

[1]*See note on Math Options.*

[2] *Major courses can be chosen from any of the functional areas once the prerequisites have been satisfied.*

[3]*The selection of a First Year Seminar is likely to fulfill requirements both for the First Year Seminar and a General Education Requirement. Thus, the First Year Seminar will not add to the total credits for the semester. Talk with your advisor if you have any questions.*

[4]*The course is a requirement for the major. It is a required international trip during the intersession.*

## Entrepreneurship Minor

The Entrepreneurship minor is 15 credit hours. It provides business students of any major with a practical understanding of entrepreneurial skills, attitudes, and behaviors needed for success. Students have the opportunity to submit business plans developed as part of the minor to external business plan competitions.

Freshmen and sophomores are encouraged to contact the program director for more information about the minor.

## Entrepreneurship Minor Curriculum

| *Class Year* | Fall | Spring |
|---|---|---|
| **Junior** | ENTR 372 - The Entrepreneurial Mindset<br><br>MGT 351 - Principles of Management and Entrepreneurship I | MGT 352 - Principles of Management and Entrepreneurship II |
| **Senior** | ENTR 374 - Entrepreneurial Resource Acquisition and Management | ENTR 477 - (EPW) The Entrepreneurial Business Plan |

## Business Leadership Honors Program Minor

The Business Leadership Honors Program Minor supports the Kania School of Management's tradition of excellence by developing students into ethical business leaders who are grounded in Jesuit ideals. Supporting the principle of *cura personalis*, the program provides personalized guidance and direction through academic challenges and interaction with distinguished business leaders. A rigorous curriculum focused on leadership enrichment and thoroughly prepares students to distinguish themselves as reflective and socially responsible leaders empowered to ignite positive change in society.

### Junior Year:

***Fall Semester*:**

BLDR 351 - Principles of Management
BLDR 385 - Self-Assessment Business Leadership Seminar #1

***Spring Semester:***

BLDR 355 - Business Ethics

BLDR 386 - Empowerment Business Leadership Seminar #2

### Senior Year:

***Fall Semester:***

BLDR 455 - Policy and Planning
BLDR 485 - Mentorship Business Leadership Seminar #3
BLDR 487 - Successful Consulting: Theory & Practice

***Spring Semester:***

BLDR 484 - Eloquentia Negotialis
BLDR 486 - Senior Project Business Leadership Seminar #4

## CAS/MBA Five-Year Program

The CAS/MBA Five-Year Program allows students from the College of Arts and Sciences to earn a bachelor's degree in liberal arts and an MBA degree in five years. Students may be required to take up to 12 one-credit foundation courses in addition to the 36 credits required of all students in order to complete the MBA program. Students interested in the program should consult their academic advisor as early as possible, preferably in the freshman year. This will allow adequate time for planning coursework. Online application forms are available from the admissions office. Criteria for acceptance into the combined program include the student's previous academic performance, GMAT score, letters of recommendation, and statement of purpose.

## Management, Marketing & Entrepreneurship, BS/MBA

The Marketing, Management and Entrepreneurship Department offers interested and qualified undergraduate marketing, management and entrepreneurship students the opportunity to earn both a Bachelor of Science degree in marketing, management or entrepreneurship, and a Master of Business Administration degree. With judicious course scheduling, most students can complete the program within five academic years.

Students interested in this accelerated BS/MBA degree program should consult their academic advisors by the beginning of their sophomore year and apply to Graduate Admissions as early as a month prior to the start of the second semester of their junior year at The University of Scranton. Criteria for acceptance into the combined program include the student's previous academic performance, GMAT score (waived for students with at least a 3.50 GPA), letters of recommendation and statement of purpose. Students must adhere to requirements as listed in the *Graduate Studies Catalog*.

## Personnel Management Certificate

Level II certificate programs will comprise 24 credits, with no more than 6 credits allowed by way of transfer from another approved college. Level II programs are open only to students who have achieved junior status, and have completed the appropriate Level I program, or to post-baccalaureate students. In the latter case, students may be required to take prerequisite courses for any required courses in the certificate program.

The Level II certificate in Personnel Management focuses on the skills successful managers need to get the job done through people. Special attention will be given to working in teams and groups.

### Level II: Personnel Management

(24 credits)

- MGT 351 - Principles of Management and Entrepreneurship I
- MGT 352 - Principles of Management and Entrepreneurship II

- MGT 361 - Human Resources Management
- MGT 362 - (EPW) Employee-Management Relations
- MGT 460 - Organization Theory
- MGT 471 - Group Dynamics
- Free electives: 6 credits, approved by advisor

# Operations and Information Management

## Faculty

Nabil A. Tamimi, Ph.D., *Chair*

Hamza Adeinat, Ph.D.

S. Kingsley Gnanendran, Ph.D.

Ahmed Gomaa, Ph.D.

Deborah J. Gougeon, Ph.D.

Ozgur Isil, Ph.D.

Yibai Li, Ph.D.

Satyanarayana V. Prattipati, Ph.D.

Vincent J. Rocco, M.B.A.

Rose Sebastianelli, Ph.D.

Ziqian Song, Ph.D

## Overview

The Operations and Information Management department offers undergraduate and graduate programs in Business Analytics and Operations Management.

## Course Information

Courses for **Operations Management** are listed under the prefixes BUAN, STAT and OIM. For more information on these courses, visit the Operations Management Courses page. For more information on all courses offered, visit our Course Descriptions page.

# Business Analytics, BS

Business Analytics is the practice of evaluating data to extract insights that help organizations make better business decisions and solve problems. It is widely recognized as a strategic necessity in today's competitive business environment and is a growing career field. Career opportunities include,

Business consultant, data analyst, data scientist, business intelligence analyst, data analytics manager.

## Business Analytics Curriculum

| | ***Department and Number - Descriptive Title of Course*** | ***Fall Cr.*** | ***Spr. Cr.*** |
|---|---|---|---|
| **First Year** | | | |
| GE S/BH | ECO 153 - (S) Principles of Microeconomics — ECO 154 - (S) Principles of Macroeconomics | 3 | 3 |
| BUS CORE | BUS 150 - Career and Professional Development | 1 | |
| GE SPCH-WRTG | BUS 140 - (FYDT,FYOC) Business Information & Oral Proficiency — WRTG 107 - (FYW) Composition | 3 | 3 |
| GE PHIL-T/RS | PHIL 120 - Introduction to Philosophy — T/RS 121 - Theology I: Introduction to the Bible | 3 | 3 |

| | | | |
|---|---|---|---|
| GE QUAN | MATH ELECT - Math Option (two courses)[1] | 3-4 | 3-4 |
| GE HUMN | HUMN ELECT - Humanities Electives[2] | 3 | 3 |
| GE FSEM | First Year Seminar[4] | | |
| | | **16-17** | **15-16** |
| **Second Year** | | | |
| BUS CORE | ACC 253 - Financial Accounting — ACC 254 - Managerial Accounting | 3 | 3 |
| BUS CORE | STAT 251 - (Q) Statistics for Business I — STAT 252 - (Q) Statistics for Business II | 3 | 3 |
| BUS CORE | MGT 251 - Legal Environment of Business | | 3 |
| BUS CORE | OIM 251 - Excel for Business Applications | 1 | |
| GE PHIL- T/RS | PHIL 210 - Ethics — T/RS 122 - Theology II: Introduction to Christian Theology | 3 | 3 |
| GE NSCI | NSCI ELECT - Natural Science Electives | 3 | 3 |
| GE HUMN | HUMN ELECT - Humanities Elective | | 3 |
| GE ELECT | FREE ELECT - Free Elective[3] | 3 | |
| | | **16** | **18** |
| **Third Year** | | | |
| MAJOR | BUAN ELECT - Business Analytics Elective | 3 | |
| MAJOR | BUAN 261 - Introduction to Business Programming | 3 | |
| BUS CORE | MGT 351 - Principles of Management and Entrepreneurship I — MGT 352 Principles of Management and Entrepreneurship II | 3 | 3 |
| BUS CORE | MKT 351 - Introduction to Marketing — FIN 251 - Introduction to Finance | 3 | 3 |
| BUS CORE | OIM 351 - Introduction to Business Analytics — OIM 352 - Introduction to Operations Management | 3 | 3 |
| BUS CORE | ECO/IB 351 - (D) Environment of International Business | | 3 |
| GE PHIL or T/RS | PHIL ELEC - Philosophy Elective or T/RS ELECT - Theology Elective | | 3 |
| | | **15** | **15** |
| **Fourth Year** | | | |
| MAJOR | BUAN 463 - Data Mining | | 3 |
| MAJOR | BUAN 470 - Introduction to Big Data | 3 | |
| MAJOR | BUAN ELECT - Business Analytics Elective | 3 | 3 |
| BUS CORE | MGT 455 - Business Policy and Strategy | 3 | |

| | | | |
|---|---|---|---|
| BUS CORE | OIM 471 - Business Information Management | | 3 |
| GE HUMN | HUMN ELECT - Humanities Elective | 3 | |
| GE ELECT | FREE ELECT - Free Electives | 3 | 6 |
| | | **15** | **15** |
| | | | **Total: 125-127 Credits** |

[1]*See note on Math Options*

[2]*If EDUC 113 is required in the first semester, it is taken in place of a humanities elective and is counted as a GE free elective. One GE free elective in the fourth year must be taken as a humanities elective.*

[3]*If a third math course is required, it replaces this GE elective.*

[4]*The selection of a First Year Seminar is likely to fulfill requirements both for the First Year Seminar and a General Education Requirement. Thus the First Year Seminar will not add to the total credits for the semester. Talk with your advisor if you have any questions.*

## Business Analytics Minor

Eighteen credits are required for the Business Analytics minor: three business core courses – OIM 471, STAT 252 and OIM 351. Three electives from EC and OIM courses are also required.

# Operations Management, BS

As one of the core functional areas of an organization Operations Management deals with the effective management of businesses in the manufacturing and service areas through effective and efficient utilization of resources in the production of goods and services. Career opportunities include:

*Manufacturing* – V.P. Manufacturing, Production Manager, Materials Manager, Inventory Analyst, Warehouse Manager, Plant Manager, Quality Control Manager, Production Planning Analyst, Purchasing Manager, Shipping Specialist

*Services* – V.P. Operations, Operations Manager, Supplies Specialist, Buyer or Purchasing Agent, Store Manager, Customer Service Manager, Warehouse Manager, Inventory Analyst

| **Business Analytics - Minor** | |
|---|---|
| | |
| Core (all required) | OIM 471 - Business Information Management |
| | STAT 252 - (Q) Statistics for Business II |
| | OIM 351 - Introduction to Business Analytics |
| Electives (required - select three) | EC 362 - Database Management Systems or OIM 444 - Business Forecasting Models |
| | OIM 463/ EC 463 - Data Mining (required) |
| | EC 261 - Introduction to Business Programming (required |
| *18 credits are required for the Business Analytics Minor | |

## Business Analytics Concentration

A student is required to take 21 credits for the Business Analytics concentration: three business core courses – OIM 471, STAT 252 and OIM 351. Four electives are also required

| Business Analytics - Concentration | |
|---|---|
| | |
| Core (all required) | OIM 471 - Business Information Management |
| | STAT 252 - (Q) Statistics for Business II |
| | OIM 351 - Introduction to Business Analytics |
| | |
| Electives (all required) | EC 362 - Database Management Systems |
| | OIM 444 - Business Forecasting Models |
| | OIM 463/EC 463 - Data Mining |
| | EC 261 - Introduction to Business Programming |
| *21 credits are required for the Business Analytics Concentration | |

## Operations Management Curriculum

| | *Department and Number - Descriptive Title of Course* | *Fall Cr.* | *Spr. Cr.* |
|---|---|---|---|
| **First Year** | | | |
| GE S/BH | ECO 153 - (S) Principles of Microeconomics – ECO 154 - (S) Principles of Macroeconomics | 3 | 3 |
| BUS CORE | BUS 150 - Career and Professional Development | 1 | |
| GE SPCH–WRTG | BUS 140 - (FYDT,FYOC) Business Information & Oral Proficiency – WRTG 107 - (FYW) Composition | 3 | 3 |
| GE PHIL–T/RS | PHIL 120 - Introduction to Philosophy – T/RS 121 - Theology I: Introduction to the Bible | 3 | 3 |
| GE QUAN | MATH ELECT - Math Option (two courses)[1] | 3-4 | 3-4 |
| GE HUMN | HUMN ELECT - Humanities Electives[2] | 3 | 3 |
| GE FSEM | First Year Seminar[4] | | |
| | | **16-17** | **15-16** |
| **Second Year** | | | |
| BUS CORE | ACC 253 - Financial Accounting – ACC 254 - Managerial Accounting | 3 | 3 |

| | | | |
|---|---|---|---|
| BUS CORE | STAT 251 - (Q) Statistics for Business I – STAT 252 - (Q) Statistics for Business II | 3 | 3 |
| BUS CORE | MGT 251 - Legal Environment of Business | | 3 |
| BUS CORE | OIM 251 - Excel for Business Applications | 1 | |
| GE PHIL–T/RS | PHIL 210 - Ethics – T/RS 122 - Theology II: Introduction to Christian Theology | 3 | 3 |
| GE NSCI | NSCI ELECT - Natural Science Electives | 3 | 3 |
| GE HUMN | HUMN ELECT - Humanities Elective | | 3 |
| GE ELECT | FREE ELECT - Free Elective[3] | 3 | |
| | | **16** | **18** |
| **Third Year** | | | |
| MAJOR | OIM ELECT - Oper. & Info. Mgt. Elective | 3 | |
| MAJOR | OIM 363 - Quality Management or OIM 362 - Quality Management | 3 | |
| BUS CORE | MGT 351 - Principles of Management and Entrepreneurship I – MGT 352 - Principles of Management and Entrepreneurship II | 3 | 3 |
| BUS CORE | MKT 351 - Introduction to Marketing – FIN 251 - Introduction to Finance | 3 | 3 |
| BUS CORE | OIM 351 - Introduction to Business Analytics – OIM 352 - Introduction to Operations Management | 3 | 3 |
| BUS CORE | ECO/IB 351 - (D) Environment of International Business | | 3 |
| GE PHIL or T/RS | PHIL ELECT - Philosophy Elective or T/RS ELECT - T/RS Elective | | 3 |
| | | **15** | **15** |
| **Fourth Year** | | | |
| MAJOR | OIM 470 - Production Planning and Control | 3 | |
| MAJOR | OIM 366 - (EPW) Supply Chain Management | | 3 |
| MAJOR | OIM ELECT - Oper. & Info. Mgt. Electives | 3 | 3 |
| BUS CORE | MGT 455 - Business Policy and Strategy | 3 | |
| BUS CORE | OIM 471 - Business Information Management | | 3 |
| GE HUMN | HUMN ELECT - Humanities Elective | 3 | |
| GE ELECT | FREE ELECT - Free Electives | 3 | 6 |
| | | **15** | **15** |
| | **Total: 125 - 127 Credits** | | |

[1] *See note on Math Options.*

[2] *If EDUC 113 is required in the first semester, it is taken in place of a humanities elective and is counted as a GE free elective. One GE free elective in the fourth year must then be taken as a humanities elective.*

[3] *If a third math course is required, it replaces this GE elective.*

[4] *The selection of a First Year Seminar is likely to fulfill requirements both for the First Year Seminar and a General Education Requirement. Thus, the First Year Seminar will not add to the total credits for the semester. Talk with your advisor if you have any questions.*

## Operations Management Minor

A student must take a minimum of 18 credits: four business core courses – STAT 252 and OIM 351, OIM 352 and OIM 471 – and two electives from OIM and EC courses

## Operations Management, BS/MBA

The Operations and Information Management Department offers interested and qualified undergraduate operations management students the opportunity to earn both a Bachelor of Science degree in operations management and a Master of Business Administration degree. With judicious course scheduling, most students can complete the program within five academic years.

Students interested in this accelerated BS/MBA degree program should consult their academic advisors by the beginning of their sophomore year and apply to Graduate Admissions as early as a month prior to the start of the second semester of their junior year at The University of Scranton. Criteria for acceptance into the combined program include the student's previous academic performance, GMAT score (waived for students with at least a 3.50 GPA), letters of recommendation and statement of purpose. Students must adhere to requirements as listed in the *Graduate Studies Catalog.*

# Panuska College of Professional Studies

The J.A. Panuska College of Professional Studies houses academic undergraduate and graduate programs in a community of learning where students receive exemplary preparation for the profession of their choice and a solid education in the liberal arts and sciences. The Panuska College's academic programs are committed to community based learning through theory and practice, developing our students into being "women and men for others." All students in the College's academic programs perform community service through coursework and projects as a requirement for graduation. The College is set apart by its commitment to service, devotion to the Ignatian qualities of care for one another and concern for those less fortunate as demonstrated in the Leahy Community Health and Family Center.

## Behavioral Standards of Conduct

All students at the University of Scranton are held to the behavioral standards established by the Academic Code of Honesty and the Student Code of Conduct. Further, students in many of the programs offered by the Panuska College of Professional Studies (PCPS) also are bound by standards of conduct established by their chosen profession (check with your program director, program catalog and program handbook for program-specific standards). Violation of these behavioral codes or standards may delay or prevent placement of a student in fieldwork required for degree completion. Further, many programs in PCPS require criminal background and child abuse clearances. A criminal history may preclude placement of a student in fieldwork required for degree completion, which would ultimately prevent a student from completing their degree program. A student's ability to obtain a state license or certification may be affected also. It is the student's responsibility, prior to selecting a PCPS program of study, to familiarize themselves with the standards of their chosen profession and, once selected, to adhere to the behavioral standards established by the University and their profession. Students should immediately inform their program director of any past or current behavioral issue, including background clearances, to understand how it may affect progress toward degree completion or licensure.

# Counseling and Human Services

## Faculty

Lori A. Bruch, Ed.D., *Chair*

Paul A. Datti, Ph.D., *Program Director*

Tiffany M. Bordonada, Ph.D.

Rebecca Spirito Dalgin, Ph.D.

Lee-Ann M. Eschbach, Ph.D.

Vanessa A. Jensen, Ed.D.

Michael E. Kelley, Ph.D.

Oliver J. Morgan, Ph.D.

Sonja K. Lund, Ph.D.

Mary L. Troy, Ph.D.

Kevin Wilkerson, Ph.D.

Benjamin T. Willis, Ph.D.

## Overview

The Counseling and Human Services (CHS) curriculum is designed to develop in students the values, knowledge and skills necessary to work with people in a variety of settings and situations. The Bachelor of Science in the CHS program is fully accredited by the Council for Standards in Human Services Education (CSHSE). All students graduating with a degree in CHS are eligible to apply for the Human Services - Board Certified Practitioner (HS-BCP) credential upon graduation through the National Organization for Human Services (NOHS) or can apply prior to graduation if the student has 15 credits or less to complete.

## *Mission Statement*

The Counseling and Human Services (CHS) undergraduate program at The University of Scranton seeks to train counseling and human service professionals who are self-reflective practitioners, competent care-givers, and community leaders. The program has a multi-disciplinary perspective with special emphasis placed on the achievement of excellence in academic and professional competencies.

The CHS program and department are committed to the enhancement of human development across the lifespan. Through the interplay of counseling, skill development, human service systems, rehabilitation services, field work experiences, and internships, the program prepares students for work in a variety of settings (agency, school, etc.) as counseling and human service professionals who situate their work within cultural, family, and community (local, regional, national, and global) contexts.

## Major Requirements and Sequence of Courses

The Counseling and Human Services (CHS) program leads to a Bachelor of Science degree that consists of a 124 credit curriculum including 58 credits from CHS major courses and cognate courses. The sequence of courses focuses on understanding normal and abnormal human behavior and adjustment across the lifespan. There is an additional focus on skills development and transforming theory into practice. Core requirements in the major emphasize values, knowledge and skills necessary for all fields of human services. In addition, a variety of electives allow students to develop competence in assisting specific populations. Students in the major are required to complete 6 credits of internship experience totaling 350 hours.

The CHS major is committed to training culturally competent counseling and human services professionals and is rooted in the Jesuit liberal arts tradition. In addition to the University of Scranton's requirements for graduation, students pursuing the CHS degree must maintain a minimum of a C (2.00) in all major and cognate courses, as well as select General Education courses. All full time students must complete a minimum of 80 hours of community based learning and participate in the PCPS TAPESTRY Program as requirements toward graduation from the Panuska College of Professional Studies. Generally, full time students complete a minimum of 10-20 hours of community based learning during each fall and spring semester.

Many students find CHS to be an academic major that is congruent with their career goals. Thus, it is common to transfer into the CHS major. After a meeting with the Program Director or Department Chair and review of acceptable academic progress, transfer students are welcome. Yet, in most cases it is necessary to complete this transfer no later than first semester of the student's sophomore year in order to complete the prescribed course sequence.

The program aligns itself to the commitment of the Panuska College of Professional Studies' mission to train students through a balance of theory and practice and community based learning experiences that are vital components of the CHS curriculum. The curriculum is geared toward students who have high social science interests as well as general scientific interest and aptitude in the social and behavioral sciences. The curriculum prepares students for entry-level positions in a variety of human service positions in private or public settings. Additionally, CHS majors are also prepared for graduate study in counseling, human services, law, psychology, social work, human resources, and other related social or behavioral science professions.

## Curriculum Programs

The Counseling and Human Services (CHS) curriculum also provides additional opportunities for CHS majors and minors.

### I. *Concentration in Rehabilitation Services*

Click here to view the Counseling and Human Services, Rehabilitation Services Concentration, BS program. (**NOTE: The program is not accepting new students into this concentration at this time**.)

### II. *Accelerated Baccalaureate/Master's Degree Program*

Click here to view the Counseling and Human Services, Accelerated BS/MS program.

#### *Program Policies*

Interested students must commit to this program no later than March 1 of their junior year of academic study, adhere to the time frame for application as outlined in the Graduate Catalog, and meet specific admissions criteria.

Please refer to the Special Programs section in the Undergraduate Catalog or the Graduate Studies Catalog for the specifics of the program. Such a program allows for the counting of up to 12 credits of graduate work toward the baccalaureate degree. A student who has achieved an overall Grade Point Average provided below may apply for early admission to a participating master's degree program.

3.50 after 64 semester hours;

3.40 after 80 semester hours;

3.30 after 96 semester hours

or 3.20 after 112 semester hours

### III. *Minor in Counseling and Human Services*

Click here to view the Counseling and Human Services Minor program.

## Fitness for the Profession of Counseling and Human Services

The Department of Counseling and Human Services is committed to training culturally competent and self-aware practitioners and professionals. The education of counseling and human services professionals demands evaluation of one's values, beliefs, attitudes and behavior patterns. In many ways the deepest challenge students will encounter is the combined task of self-assessment, self-correction and self-direction in collaboration with others and across many areas of life: academic, clinical, professional and personal.

In order to address student strengths and growing edges, the CHS department and program have developed a Fitness for the Profession Document to assess personal and professional competencies. The document outlines a separate student retention policy and procedures to provide students with direct feedback relative to their progress in the program. It is our hope and expectation that each undergraduate student who joins the department will succeed in these tasks. The document is available in the Program Manual and on the CHS department and program Web sites.

## Clearances and Background Checks

The CHS major requires clearances (e.g., criminal background checks, child abuse clearance, fingerprints, etc.) to enroll in internship. All clearance are coordinated through the PCPS Field Office and acquired through CastleBranch, a clinical compliance platform. It is the student's responsibility to work with the Director of Field Placement to secure needed clearances during the pre-internship semester as part of the Career Seminar class (CHS 340).

Please note that while criminal histories or offenses incurred while in or prior to the program do not necessarily prevent students from being successful, students should be aware of the University Code of Conduct and that some human service agencies, depending on the offense(s), may not allow an internship or employment. If you believe this situation may affect you, it is suggested that you discuss the

matter with the CHS Program Director or CHS Department Chair as soon as possible.

## Counseling and Human Services Honor Society

### *Tau Upsilon Alpha* (Epsilon Chapter)

The Department of Counseling and Human Services has a National Honor Society for the B.S. program. The Tau Upsilon Alpha (TUA) National Honor Society is sponsored by the National Organization for Human Services and the Epsilon Chapter is available to recognize academic excellence of undergraduate Counseling and Human Services students.

*The Epsilon Chapter of TUA supports the mission of NOHS "to honor academic excellence; to foster life-long learning, leadership and development; and to promote excellence in service to humanity."*

Please contact the TUA chapter advisor Dr. Paul Datti for information and the criteria for membership.

## Counseling and Human Services Association

The undergraduate Counseling and Human Services Association (CHSA) is comprised of CHS majors and others interested in counseling and human services. CHSA elects officers annually, meets monthly, participates in community service, and sponsors fund raising activities and educational initiatives across the campus and within the local community. The Department of Counseling and Human Services has a list-serve which CHS majors and faculty are placed so as to receive all pertinent information relative to the CHSA and other department announcements.

## Statement of Reasonable Accommodations for Students

Students are encouraged to make an appointment with course instructors to review any course related concerns, needs, and/or reasonable accommodations. Reasonable academic accommodations may be provided to students who submit appropriate and current documentation of their disability to the Center for Teaching and Learning Excellence (CTLE). Students are encouraged to contact the (CTLE) at disabilityservices@scranton.edu or (570) 941-4038 if they have, or think they may have, a disability and wish to determine eligibility for any accommodations. For more information, please visit www.scranton.edu/disabilities.

## Course Information

Courses for **Counseling and Human Services** are listed under the prefix CHS. For more information on these courses, visit our Counseling and Human Services Department Courses page. For more information on all courses offered, visit our Course Descriptions page.

# Counseling and Human Services, BS

## Counseling and Human Services Curriculum

| | ***Department and Number Descriptive Title of Course*** | ***Fall Cr.*** | ***Spr. Cr.*** |
|---|---|---|---|
| **First Year** | | | |
| MAJOR | CHS 111 - (S) Introduction to Human Adjustment | 3 | |
| MAJOR | CHS 112 - Human Services Systems* | | 3 |
| COGNATE(GE S/BH) | PSYC 110 - (S) Fundamentals of Psychology | | 3 |
| GE WRTG | WRTG 107 - (FYW) Composition | | 3 |
| GE C/IL | EDUC 102 - (FYOC, FYDT) Educational Skills in a Global Society | 3 | |

| | | | |
|---|---|---|---|
| GE PHIL–T/RS | PHIL 120 - Introduction to Philosophy – T/RS 121 - Theology I: Introduction to the Bible | 3 | 3 |
| GE HUMN | HUMN ELECT – Humanities Electives | 3 | 3 |
| GE NSCI | NSCI ELECT - Natural Science Elective | 3 | |
| GE FSEM | First Year Seminar** | | |
| | | **15** | **15** |
| **Second Year** | | | |
| MAJOR | CHS 241 - (D) Case Management and Interviewing* | 3 | |
| MAJOR | CHS 242 - Counseling Theories | | 3 |
| MAJOR | CHS 293 - (EPW) Research Methods in Counseling and Human Services*** | | 3 |
| MAJOR | CHS ELECT - Counseling & Human Services Elective | | 3 |
| COGNATE(GE S/BH) | PSYC 226 - (S) Lifespan Development: Cognitive and Biological | 3 | |
| COGNATE | PSYC 227 - (S) Lifespan Development: Social and Emotional | | 3 |
| GE QUAN | PSYC 210 - (Q) Statistics in the Behavioral Sciences – EDUC 120 - (Q) Applied Statistics | 3 | |
| GE PHIL–T/RS | PHIL 210 - Ethics – T/RS 122 - Theology II: Introduction to Christian Theology | 3 | 3 |
| GE NSCI | NSCI ELECT – Natural Science Elective | 3 | |
| | | **15** | **15** |
| **Third Year** | | | |
| MAJOR | CHS 333 - (D) Multiculturalism in Counseling and Human Services* | 3 | |
| MAJOR | CHS 335 - Administration in Human Services | 3 | |
| MAJOR | CHS 340 - Career Seminar | 1 | |
| MAJOR | CHS 341 - Group Dynamics* | 3 | |
| MAJOR | CHS 380 - Internship in Counseling and Human Services | | 3 |
| MAOR | CHS ELECT – Counseling & Human Services Electives | 3 | 3 |
| COGNATE | S/BH ELECT – Social/Behavioral Science Electives | 3 | 3 |
| GE HUMN | HUMN ELECT – Humanities Elective | | 3 |
| GE PHIL or T/RS | PHIL or T/RS ELECT - Philosophy or T/RS Elective | | 3 |
| | | **16** | **15** |

| Fourth Year | | | |
|---|---|---|---|
| MAJOR | CHS 441 - (EPW) Crisis Intervention* | 3 | |
| MAJOR | CHS ELECT – Counseling & Human Services Electives | | 6 |
| MAJOR | CHS 481 - Advanced Internship in Counseling and Human Services | 3 | |
| COGNATE | S/BH ELECT – Social/Behavioral Science Electives | 3 | 3 |
| GE ELECT | FREE ELECT – Free Electives | 6 | 6 |
| GE HUMN | HUMN ELECT – Humanities Elective | | 3 |
| | | **15** | **18** |
| | | | |
| | **Total: 124 Credits** | | |

* *Course includes community based learning component.*

***Select a First Year Seminar in PHIL or T/RS or other major to fulfill requirements both for the First Year Seminar and a General Education Requirement. If a student chooses the CHS First Year Seminar (CHS 110X), it will be counted as a free CHS elective. Thus, First Year Seminars in these disciplines may not add to the total credits for the major. Talk with your advisor if you have any questions.*

****** It is** strongly **recommended that you take CHS 293 during your sophomore year but no later than fall of junior year (preferably concurrently or just after your statistics course), as it lays the foundation for advanced research papers that will be required in your last two years.***

# Counseling and Human Services, Rehabilitation Services Concentration, BS

**NOTE: The program is not accepting new students into this concentration at this time.**

The Counseling and Human Services curriculum offers a concentration in rehabilitation services to enhance the knowledge and practice for work with persons with disabilities in response to an increasing need for baccalaureate-level professionals in rehabilitation services. Through a concentration in rehabilitation services, students will be prepared to work in state and local agencies that are responsible for the vocational, mental-health, job-development and coaching and related needs of persons with disabilities. Students can also pursue an emphasis on persons with addiction and substance-abuse disabilities. This concentration is only for Counseling and Human Services majors.

## Counseling and Human Services Concentration in Rehabilitation Services Curriculum

| | *Department and Number - Descriptive Title of Course* | *Fall Cr.* | *Spr. Cr.* |
|---|---|---|---|
| **First Year** | | | |
| MAJOR | CHS 111 - (S) Introduction to Human Adjustment | 3 | |
| MAJOR | CHS 112 - Human Services Systems[1] | | 3 |
| COGNATE(GE S/BH) | PSYC 110 - (S) Fundamentals of Psychology | | 3 |

| | | | |
|---|---|---|---|
| GE SPCH–WRTG | COMM 100 - (FYOC) Public Speaking*– WRTG 107 - (FYW) Composition | 3 | 3 |
| GE C/IL | C/IL 102/102L - (FYDT) Computing and Information Literacy* | 3 | |
| GE PHIL–T/RS | PHIL 120 - Introduction to Philosophy – T/RS 121 - Theology I: Introduction to the Bible | 3 | 3 |
| GE HUMN | HUMN ELECT – Humanities Electives | 3 | 3 |
| GE FSEM | First Year Seminar[2] | | |
| | | **15** | **15** |
| **Second Year** | | | |
| MAJOR | CHS 241 - (D) Case Management and Interviewing[1] | 3 | |
| MAJOR | CHS 242 - Counseling Theories | | 3 |
| MAJOR | CHS 293 - (EPW) Research Methods in Counseling and Human Services | | 3 |
| COGNATE(GE S/BH) | PSYC 226 - (S) Lifespan Development: Cognitive and Biological | 3 | |
| COGNATE | PSYC 227 - (S) Lifespan Development: Social and Emotional | | 3 |
| GE QUAN | PSYC 210 - (Q) Statistics in the Behavioral Sciences or EDUC 120 - (Q) Applied Statistics | 3 | |
| GE PHIL–T/RS | PHIL 210 - Ethics – T/RS 122 - Theology II: Introduction to Christian Theology | 3 | 3 |
| GE HUMN | HUMN ELECT - Humanities Elective | | 3 |
| GE NSCI | NSCI ELECT - Natural Science Electives | 3 | 3 |
| | | **15** | **18** |
| **Third Year** | | | |
| MAJOR | CHS 333 - (D) Multiculturalism in Counseling and Human Services[1] | 3 | |
| MAJOR | CHS 335 - Administration in Human Services | | 3 |
| MAJOR | CHS 340 - Career Seminar | 1 | |
| MAJOR | CHS 341 - Group Dynamics[1] | 3 | |
| MAJOR | CHS 342 - Foundations of Rehabilitation | 3 | |
| MAJOR | CHS 343 - Medical and Psychosocial Aspects of Disabilities | 3 | |
| MAJOR | CHS 344 - Vocational Evaluation | | 3 |
| MAJOR | CHS 380 - Internship in Counseling and Human Services | | 3 |
| GE PHIL or T/RS | PHIL - Philosophy or T/RS ELECT - T/RS Elective | | 3 |

| | | | |
|---|---|---|---|
| GE ELECT | FREE ELECT - Free Electives | 3 | 3 |
| | | **16** | **15** |
| **Fourth Year** | | | |
| MAJOR | CHS 440 - Job Development | 3 | |
| MAJOR | CHS 441 - (EPW) Crisis Intervention[1] | 3 | |
| MAJOR | CHS 480 - Internship in Rehabilitation Services | 3 | |
| MAJOR | CHS ELECT - Counseling & Human Services Electives | 3 | 6 |
| COGNATE | S/BH ELECT - Social/Behavioral Science Electives | 3 | 3 |
| GE HUMN | HUMN ELECT - Humanities Elective | | 3 |
| GE ELECT | FREE ELECT - Free Elective | | 6 |
| | | **15** | **18** |
| | **Total: 124 - 127 Credits** | | |

[1] *Includes community based learning component.*

[2] *The selection of a First Year Seminar is likely to fulfill requirements both for the First Year Seminar and a General Education Requirement. Thus, the First Year Seminar will not add to the total credits for the semester. Talk with your advisor if you have any questions.*

**An approved 3-credit EP Foundations Course is acceptable and often substituted for the 6 credits encompassing both COMM 100 and C/IL 102/102L, thus allowing the total number of credits required for graduation to be 124. Students always have the option to take COMM 100 and C/IL 102/102L instead of the EP course, which may be necessary if an EP Foundations course is not available. This option raises the credits to 127. Consult with your advisor if you have questions.*

## Counseling and Human Services Minor

A minor in Counseling and Human Services requires:

- CHS 111 - (S) Introduction to Human Adjustment,
- CHS 112 - Human Services Systems,
- CHS 241 - (D) Case Management and Interviewing,
- CHS 242 - Counseling Theories,
- CHS 341 - Group Dynamics

  **and**

- One CHS elective course.

## Counseling and Human Services, AS

The Associate of Science degree in career-related fields has been designed as the natural companion to the Bachelor of Science degrees in those majors.

## Associate in Science: Counseling and Human Services Curriculum

| | *Department and Number Descriptive Title of Course* | *Credits* |
|---|---|---|
| **General Education** | | |
| GE SPCH–WRTG | COMM 100 - Public Speaking* – WRTG 107 - Composition | 6 |
| GE C/IL | C/IL 102 - Computing and Information Literacy* | 3 |
| GE HUMN | HUMN ELECT – Humanities Electives | 9 |
| GE PHIL–T/RS | PHIL 120 - Introduction to Philosophy – T/RS 121 - (P) Theology I: Introduction to the Bible | 6 |
| GE PHIL or T/RS | PHIL 210 - Ethics or T/RS 122 - (P) Theology II: Introduction to Christian Theology | 3 |
| GE QUAN–NSCI | QUAN ELECT - Quantitative Electives – NSCI - Natural Science Electives | 6 |
| GE ELECT | FREE ELECT - Free Electives | 6 |
| | | |
| **Major/Cognate** | | |
| | CHS 111 - (S) Introduction to Human Adjustment | 3 |
| | CHS 112 - Human Services Systems | 3 |
| | CHS 241 - (D) Case Management and Interviewing | 3 |
| | CHS 242 - Counseling Theories | 3 |
| | CHS ELECT – CHS Elective | 3 |
| | ELECT – Cognate Electives | 6 |
| | **Total: 57 - 60 Credits** | |

*An approved 3-credit EP Foundations Course is acceptable and often substituted for the 6 credits encompassing both *COMM 100* and *C/IL 102/102L*, thus allowing the total number of credits required for graduation to be 124. Students always have the option to take *COMM 100* and *C/IL 102/102L* instead of the EP course, which may be necessary if an EP Foundations course is not available. This option raises the credits to 127. Consult with your advisor if you have questions.

***Note:*** *Students who complete the A.S. in Counseling and Human Services and wish to continue toward the B.S. in Counseling and Human Services must have attained a 2.5 G.P.A. in the major and a 2.0 in the cognate courses.*

## Counseling and Human Services, Accelerated BS/MS

Undergraduate Counseling and Human Services majors with outstanding academic records may be eligible for early admission to either the Clinical Mental Health, Rehabilitation, or School Counseling graduate degree program through the Accelerated Master's Degree Program.

Interested students must adhere to the admissions deadlines published on the University of Scranton Graduate.

Admissions website. Contact Tammy Manka, Coordinator of PCPS Graduate Academic Services, for additional information..

Interested applicants must have a 3.5 cumulative grade point average after completion of 64 semester hours, 3.4 after 80 semester hours, 3.3 grade point average after 96 semester hours, or 3.2 grade point average after 112 hours. In addition to meeting the minimum

grade point average outlined for the accelerated program in counseling, each candidate will participate in the admissions process for the graduate program to which they are applying. The Clinical Mental Health Counseling, the Rehabilitation Counseling, and the School Counseling programs all require participation in a group interview as part of the application process

# Education

## Faculty

Maria Oreshkina, Ph.D., *Chair*

Darryl DeMarzio, Ph.D.

Jennifer Kaschak, Ph.D.

Tata J. Mbugua, Ph.D.

## Programs

The Education Department offers degrees in Early and Primary Teacher Education, Middle Level Teacher Education, and Secondary Education, each leading to Pennsylvania teacher certification. Programs in Middle Level Teacher Education contain concentrations in English/Language Arts and Reading, Mathematics, Social Studies, and Science. Secondary Education Programs include:

| | |
|---|---|
| Biology | General Science |
| Chemistry | German |
| Citizenship with History | Latin |
| Citizenship with Political Science | Mathematics |
| Communication | Physics |
| English | Spanish |
| French | |

Dual majors or the equivalent of a dual major are part of all Secondary Education programs at the University.

## Educational Studies Minor

The Minor in Educational Studies is a six-course undergraduate program of study open to students of all majors. The minor allows students to study education both as a liberal arts discipline-furthering student interests in the foundations of education, child and adolescent development, and the science and art of teaching; as well as a professional resource, suited especially for careers in corporate training, human resources development, child advocacy and policy, and university research and teaching. The Minor in Educational Studies requires completion of 18 credits. For more information about the Educational Studies Minor please visit the Educational Studies Minor site.

## Student Teaching Requirements

The Education Department ordinarily does not permit students to take courses concurrently with the student-teaching sequence. Students seeking deviations from this policy must complete a form requiring the approvals of the advisor, the appropriate program director, the department chairperson, and the dean. Student teaching requires application, which must be submitted to the Field Placement Director via Taskstream and approved by the Teacher Education Committee, prior to registration for the student teaching semester. Detailed directions for student teaching application are available in the Education Department Undergraduate Student Handbook. Current PA Criminal Records, PA Child Abuse and ACT 24 Clearance forms, FBI fingerprint clearances indicating "no record," and TB test results are required previous to receiving a field assignment. Students must comply with field and student teaching application deadlines. Students are responsible for their own transportation to and from the student teaching site.

## Accreditation

The Department's programs are approved by the Pennsylvania Department of Education (PDE). *Note*: Graduates of the University of Scranton's teacher education programs may be eligible for certifications offered by other states. Pennsylvania has signed an Interstate Agreement through the National Association of State Directors of Teacher Education and Certification which facilitates certification in other states. States' requirements vary and are subject to change without notice, therefore; it is strongly recommended that students who wish to obtain certification in a state other than Pennsylvania, obtain certification requirements for the state(s) in which they wish to pursue certification by reviewing the respective state department of education's website(s). We encourage you to contact the appropriate state licensing agency to seek guidance and verify requirements before beginning a program and during your program of study.

## Field Experiences/Student Teaching Requirements

In order to enter Pennsylvania schools or be placed at any field experience site that would place students in direct contact with children, including any and all University of Scranton clinics or tutoring sessions, all students must have a valid PA Criminal Record Check (Act 34), PA Child Abuse Clearance (Act 151), Federal Criminal History Record Information (Act 114), TB test results and Arrest/Conviction Report and Certification Form (Act 24) on file with the Education Department. Any citation on the Act 34, Act 151, or Act 114 will prevent students from participating in field experiences and student teaching, or admission into Teacher Education Programs. In no case will a student be provided with placement information previous to the instructor's acknowledgment of current clearances or TB test results. Students are responsible for their own transportation to and from the field experience site.

## Teacher Candidacy

Students are accepted to the University as Education Majors, but students are not formally accepted in the Education Preparation Program until they have been accepted into Teacher Candidacy. For students admitted as Education Majors, enrollment in 300 level Education courses may occur only upon successful completion of application for Teacher Candidate Status. From the freshman year, students are strongly urged to become aware of Teacher Candidacy requirements. Students are encouraged to take the Pre-Service Academic Performance assessment (PAPA) or the Praxis I Core Exam in their freshman year and to attend the teacher candidacy informational seminar, which is offered each semester.

## Semi-Annual Review of Student Dispositions

The professional demeanor of education majors is evaluated each semester at a meeting of the Education Department faculty and professional staff. This determination is based on professional behaviors as outlined in The Education Undergraduate Student Handbook (available from the Education Department Web site). Students whose professional behaviors are unsatisfactory are subject to departmental probation and may be recommended to the dean of the college for dismissal from the Education program. The department's probation policy and other information are presented in the Education Undergraduate Student Handbook.

## Community-Based Learning

The Panuska College of Professional Studies embraces a community-based learning experience to better prepare its students for professional careers that are service oriented. Education majors are required to perform 40 hours of community-based learning in order to graduate. In the Freshman year, community-based learning requirements are earned through the PCPS T.A.P.E.S.T.R.Y. Program. Community-based learning is aligned with designated courses throughout the remainder of the program of studies and is related to the content of the courses (see the Education Undergraduate Student Handbook available on the Education Department website).

## Exit Interview

Upon completion of the student teaching experience, students are required to participate in an exit interview with faculty members. During the exit interview, students are asked about the strengths and weaknesses of the program. Students may also be asked about Jesuit education. Education majors are required to participate in the exit interview in order to graduate.

## edTPA

The Education Department has selected edTPA as its capstone assessment. All undergraduate student teachers will be required to complete edTPA as part of the requirements for the Professional Practice Seminar.

## Academic Advising

Students will confer with their academic advisors in order to plan the sequence of courses that will be taken for each term. Entering freshmen will be given the new program requirements prior to orientation. Following this narrative, all the courses mentioned are a part of the programs of study.

## Title II

Federal regulations in the Higher Education Act of 1998 require that departments of teacher education report their students' performance on the PAPA/PECT and Praxis Series examinations.

## Course Information

Courses for **Education** are listed under the prefix EDUC. For more information on these courses, visit our Education Department Courses page. For more information on all courses offered, visit our Course Descriptions page.

# Education, Early and Primary Teacher, BS

## Teacher Candidacy Screening

All teacher candidacy requirements are completed using Taskstream. The following outline presents criteria for the teacher candidacy programs.

1. Verification of at least 48 semester hours in order to meet PDE chapter 354.23 regulations.
2. Verification of at least 3.00 GPA in Education, teaching area, and overall, with verification of "C" or above in education and teaching area courses taken by the time of application.
3. Clearances: Valid PA Criminal Record Check (Act 34), PA Child Abuse Clearance (Act 151), and Federal Criminal History Record Information - FBI Fingerprinting (Act 114) indicating "no record," as well as the Arrest/Conviction Report and Certification Form (Act 24) and TB test results. Any citation on the Act 34, act 151 or Act 114 will result in unsuccessful screening.
4. Passing scores on the PAPA examinations (Reading, Writing, Mathematics) or Praxis I Core Exam.
5. Satisfactory completion of a candidacy interview process as designed and implemented by the Education Department.
6. Completed positive recommendations from two (preferably, full-time) instructors in the Education Department with whom you have taken courses. (It is the student's responsibility to obtain the recommendation from each instructor.)

*More specific criteria for teacher candidacy for each program is shown below. More information is provided by the Undergraduate Program Director at scheduled meetings each semester that students are encouraged to attend.*

## Teacher Candidacy Requirements:

- EDUC 144 - Foundations of American Education
- EDUC 222 - (S,EPW) Educational Psychology, PreK-4
- WRTG 107 - (FYW) Composition (or WRTG 105 +106)
- ENLT Elective
- MATH 6 credits of college-level mathematics at the 102 or higher level

## Student Teaching Requirements

"The culminating experience in the Teacher Education Program is student teaching. To apply for student teaching, the student will have:

- completed or be currently enrolled in all major courses required to be completed prior to student teaching (as noted on specific program guides),
- earned a grade of "C" or better in major courses completed prior to student teaching,
- earned a grade of "C" or better in teaching area courses completed prior to student teaching,
- obtained a GPA of 3.00 or greater in major courses, teaching area courses, and overall.

**(All major courses must be completed prior to student teaching as noted in specific program guides; not all teaching area courses must be completed before student teaching.)**

Students must demonstrate that these requirements are still met at the end of the fall or spring semester of application to student teach."

## Early and Primary Education Program Curriculum

| | *Department and Number Descriptive Title of Course* | *Fall Cr.* | *Spr. Cr.* |
|---|---|---|---|
| **First Year** | | | |
| MAJOR | EDUC 144 - Foundations of American Education | 3 | |
| MAJOR | EDUC 142 - (D,S) Exceptional Lives | 3 | |
| MAJOR | EDUC 222 - (S,EPW) Educational Psychology, PreK-4 | | 3 |
| GE QUAN | MATH 102 - (Q) Fundamentals of Numerical Mathematics | 3 | |
| GE ELECT | MATH 105 - (Q) Fundamentals of Geometric Mathematics | | 3 |
| GE WRTG | WRTG 107 - (FYW) Composition | 3 | |
| GE EP | EP ELECT - Eloquentia Perfecta[1] | | 3 |
| GE S/BH | PSYC 110 - (S) Fundamentals of Psychology | 3 | |
| GE T/RS | T/RS 121 - (P) Theology I: Introduction to the Bible | | 3 |
| GE HUMN | HIST 110 - (CH) History of the United States to 1877 or HIST 111 - (CH) History of the United States from Reconstruction to the Present | | 3 |
| GE FSEM | First Year Seminar[2] | | |
| | | **15** | **15** |
| **Second Year** | | | |
| MAJOR | EDUC 250 - Early Development and Intervention | 3 | |
| MAJOR | EDUC 240 - Early Language and Literacy - Birth to Age 5 | 3 | |
| MAJOR | EDUC 241 - Foundations of Literacy Development I | | 3 |
| MAJOR | EDUC 256 - (D) Family, School & Community Relations in a Diverse Society | | 3 |
| MAJOR | EDUC 252 - Assessment & Evaluation in Early & Primary Education | | 3 |
| MAJOR | EDUC 242 - Math for PreK-1 | 3 | |
| GE S/BH | PS 120 - (S) U.S. Politics: Principles & Citizenship or PS 121 - (S) U.S. Politics: Institutions & Policy | | 3 |

| | | | |
|---|---|---|---|
| GE HUMN | (CL) ENLT requirement - ENLT 100 Level | 3 | |
| GE T/RS | T/RS 122 - (P) Theology II: Introduction to Christian Theology | 3 | |
| GE NSCI | (E) NSCI ELECT - Natural Science Elective | | 3 |
| | | **15** | **15** |
| **Third Year** | | | |
| MAJOR | EDUC 363 - (EPW) Foundations of Literacy Development II | 3 | |
| MAJOR | EDUC 359 - (D) Introduction to English Language Learning | 3 | |
| MAJOR | EDUC 358 - Reading to Learn with Trade Books & Texts | | 3 |
| MAJOR | EDUC 346 - (D) Social Studies for PreK-4 | | 3 |
| MAJOR | EDUC 344 - Integrated Science and Technology, Pre K-4 | 3 | |
| MAJOR | EDUC 339 - Math for Grades 2-4 | | 3 |
| MAJOR | EDUC 357 - Integrated Methods Across Curriculum | | 3 |
| FREE ELECT | FREE ELECT - Free Elective[3] | 3 | |
| GE PHIL | PHIL 120 - Introduction to Philosophy | 3 | |
| GE NSCI | (E) PHYS-SCI ELECT - Physical Science Elective | 3 | |
| GE PHIL | PHIL 210 - Ethics | | 3 |
| | | **18** | **15** |
| **Fourth Year** | | | |
| GE HUMN | HUMN ELECT - Humanities Elective[3] | 3 | |
| GE ELECT | ECO 410 - Economic Concepts and Applications | 3 | |
| GE HUMN | HUMN ELECT - Humanities Elective (Literature or Arts) | 3 | |
| GE T/RS-PHIL | T/RS - PHIL ELECT - Theology or Philosophy Elective | 3 | |
| GE ELECT | GEOG 134 - (S) World Regional Geography | 3 | |
| FREE ELECT | FREE ELECT - Free Elective[4] | 3 | |
| MAJOR | EDUC 445 - Professional Practice Seminar, PreK-4[5] | | 3 |
| MAJOR | EDUC 456 - Planning in Early/Primary (PreK-4) Student Teaching, EDUC 457 - Instruction in Early/Primary (PreK-4) Student Teaching, EDUC 458 - Managing Classrooms in Early/Primary (PreK-4) Student Teaching, EDUC 459 - Professional Growth in Early/Primary (PreK-4) Student Teaching[6] | | 10 |
| | | **18** | **13** |
| | | | **Total: 124 Credits** |

[1]*This course must meet the FYOC and FYDT designations for Eloquentia Perfecta.*

[2]*The selection of a First Year Seminar is likely to fulfill requirements both for the First Year Seminar and a General Education Requirement. Thus, the First Year Seminar will not add to the total credits for the semester. Talk with your advisor if you have any questions.*

[3] *Humanities Electives: Students must earn 6 credits in Literature or Foreign Language with no more than 3 credits in Art or Music.*

[4] *Students admitted to Accelerated Special Education Program will take a graduate level course towards their graduate degree as a free elective.*

[5] *All undergraduate student teachers will be required to complete edTPA as part of the requirements for student teaching seminar.*

[6] *Students may complete student-teaching in the fall semester if the requirements for student-teaching are met at the beginning of the fall semester.*

# Education, Middle Level Teacher, BS

## Teacher Candidacy Screening

All teacher candidacy requirements are completed using Taskstream. The following outline presents criteria for the teacher candidacy programs.

1. Verification of at least 48 semester hours in order to meet PDE chapter 354.23 regulations.
2. Verification of at least 3.00 GPA in Education, teaching area, and overall, with verification of "C" or above in education and teaching area courses taken by the time of application.
3. Clearances: Valid PA Criminal Record Check (Act 34), PA Child Abuse Clearance (Act 151), and Federal Criminal History Record Information - FBI Fingerprinting (Act 114) indicating "no record," as well as the Arrest/Conviction Report and Certification Form (Act 24) and TB test results. Any citation on the Act 34, act 151 or Act 114 will result in unsuccessful screening.
4. Passing scores on the PAPA examinations (Reading, Writing, Mathematics) or Praxis I Core Exam.
5. Satisfactory completion of a candidacy interview process as designed and implemented by the Education Department.
6. Completed positive recommendations from two (preferably, full-time) instructors in the Education Department with whom you have taken courses. (It is the student's responsibility to obtain the recommendation from each instructor.)

*More specific criteria for teacher candidacy for each program is shown below. More information is provided by the Undergraduate Program Director at scheduled meetings each semester that students are encouraged to attend.*

## Teacher Candidacy Requirements:

- EDUC 142 - (D,S) Exceptional Lives
- EDUC 223 - (EPW) Educational Psychology, GR 4-12
- WRTG 107 - (FYW) Composition (or WRTG 105 + WRTG 106)
- ENLT 140 - (CL) English Inquiry (or ENLT 12X Lit Elective)
- MATH 6 credits of college-level mathematics at the 102 or higher level as defined by area of concentration

## Student Teaching Requirements

"The culminating experience in the Teacher Education Program is student teaching. To apply for student teaching, the student will have:

- completed or be currently enrolled in all major courses required to be completed prior to student teaching (as noted on specific program guides),

- earned a grade of "C" or better in major courses completed prior to student teaching,
- earned a grade of "C" or better in teaching area courses completed prior to student teaching,
- obtained a GPA of 3.00 or greater in major courses, teaching area courses, and overall.

**(All major courses must be completed prior to student teaching as noted in specific program guides; not all teaching area courses must be completed before student teaching.)**

Students must demonstrate that these requirements are still met at the end of the fall or spring semester of application to student teach."

## Middle Level Education (English/Language Arts & Reading) Curriculum

| | *Department and Number Descriptive Title of Course* | *Fall Cr.* | *Spr. Cr.* |
|---|---|---|---|
| **First Year** | | | |
| MAJOR | EDUC 142 - (D,S) Exceptional Lives | 3 | |
| COGNATE | GEOG 134 - (S) World Regional Geography | 3 | |
| MAJOR | EDUC 223 - (EPW) Educational Psychology, GR 4-12 | | 3 |
| COGNATE | MATH 102 - (Q) Fundamentals of Numerical Mathematics | 3 | |
| COGNATE | MATH 105 - (Q) Fundamentals of Geometric Mathematics | | 3 |
| GE WRTG | WRTG 107 - (FYW) Composition | 3 | |
| EP ELEC | EP ELEC - Eloquentia Perfecta[1] | | 3 |
| COGNATE | BIOL 102 - (E) Organisms, Evolution and Environment | 3 | |
| GE T/RS | T/RS 121 - (P) Theology I: Introduction to the Bible | | 3 |
| COGNATE | HIST 110 - (CH) History of the United States to 1877 or HIST 111 - (CH) History of the United States from Reconstruction to the Present | | 3 |
| GE FSEM | First Year Seminar[2] | | |
| | | **15** | **15** |
| **Second Year** | | | |
| MAJOR | EDUC 220 - Middle School Concept and Curriculum | | 3 |
| MAJOR | EDUC 246 - Interdisciplinary Assessment, Grades 4-12 | 3 | |
| MAJOR | ENLT 140 - (CL) English Inquiry | 3 | |
| COGNATE | ENLT 200 Level or 300 Level – British Literature | | 3 |
| COGNATE | ENLT 200 Level or 300 Level – American Literature | | 3 |
| COGNATE | MATH 204 - (Q) Introduction to Statistics | 3 | |

| | | | |
|---|---|---|---|
| COGNATE | PS 120 - (S) U.S. Politics: Principles & Citizenship | 3 | |
| COGNATE | (CL) ENLT 12X – ENLT 12X | 3 | |
| GE T/RS | T/RS 122 - (P) Theology II: Introduction to Christian Theology | | 3 |
| COGNATE | CHEM 100 - (E) Elements of Chemistry | | 3 |
| | | **15** | **15** |
| **Third Year** | | | |
| MAJOR | EDUC 357 - Integrated Methods Across Curriculum | | 3 |
| MAJOR | EDUC 363 - (EPW) Foundations of Literacy Development II | 3 | |
| MAJOR | EDUC 359 - (D) Introduction to English Language Learning | | 3 |
| MAJOR | EDUC 370 - Inclusionary Classroom Practices, Grades 4-12 | 3 | |
| MAJOR | EDUC 358 - Reading to Learn with Trade Books & Texts | | 3 |
| MAJOR | EDUC 315 - Subject Methods: Citizenship/Communication/English | 1 | |
| COGNATE | MATH 106 - (Q) Quantitative Methods I or MATH 107 - (Q) Quantitative Methods II | | 3 |
| COGNATE | WRTG 310 - Strategies for Teaching Writing | 3 | |
| GE PHIL | PHIL 120 - Introduction to Philosophy (P) | | 3 |
| COGNATE | PHYS 102 - (E) Earth Science | 3 | |
| GE PHIL | PHIL 210 - Ethics (P) | | 3 |
| COGNATE | ENLT Area G Course – English Elective | 3 | |
| | | **16** | **18** |
| **Fourth Year** | | | |
| COGNATE | ENLT 200 Level or 300 Level British Literature | 3 | |
| COGNATE | ECO 410 - Economic Concepts and Applications | 3 | |
| COGNATE | ENLT 200 Level or 300 Level – American Literature | 3 | |
| GE PHIL or T/RS | (P) PHIL or T/RS ELECT Philosophy or T/RS Elective | 3 | |
| COGNATE | THTR 151 - (CA) Introduction to Acting | 3 | |
| COGNATE | PHYS 107 - (E) "Hands-On" Physics | 3 | |
| MAJOR | EDUC 450 - Professional Practice Seminar, 4-8[3] | | 3 |

| | | | |
|---|---|---|---|
| MAJOR | EDUC 452 - Planning in Middle Level Student Teaching (Gr. 4-8)[4]<br>EDUC 453 - Instruction in Middle Level Student Teaching (Gr. 4-8)<br>EDUC 454 - Managing Classrooms in Middle Level Student Teaching (Gr. 4-8)<br>EDUC 455 - Professional Growth in Middle Level Student Teaching (Gr. 4-8) | | 10 |
| | | **18** | **13** |
| | | | **Total: 125 Credits** |

[1]*This course must meet the FYOC and FYDT designations for Eloquentia Perfecta.*

[2]*The selection of a First Year Seminar is likely to fulfill requirements both for the First Year Seminar and a General Education Requirement. Thus, the First Year Seminar will not add to the total credits for the semester. Talk with your advisor if you have any questions.*

[3]*All undergraduate student teachers will be required to complete edTPA as part of the requirements for student teaching seminar.*

[4]*Students may complete student-teaching in the fall semester if the requirements for student-teaching are met at the beginning of the fall semester.*

## Middle Level Education (Mathematics) Curriculum

| | ***Department and Number Descriptive Title of Course*** | ***Fall Cr.*** | ***Spr. Cr.*** |
|---|---|---|---|
| **First Year** | | | |
| MAJOR | EDUC 142 - (D,S) Exceptional Lives | 3 | |
| COGNATE | GEOG 134 - (S) World Regional Geography | 3 | |
| MAJOR | EDUC 223 - (EPW) Educational Psychology, GR 4-12 | | 3 |
| COGNATE | MATH 102 - (Q) Fundamentals of Numerical Mathematics | 3 | |
| COGNATE | MATH 105 - (Q) Fundamentals of Geometric Mathematics | | 3 |
| GE WRTG | WRTG 107 - (FYW) Composition | 3 | |
| EP ELEC | EP ELEC - Eloquentia Perfecta[1] | | 3 |
| COGNATE | BIOL 102 (E) Organisms, Evolution and Environment | 3 | |
| GE T/RS | T/RS 121 - (P) Theology I: Introduction to the Bible | | 3 |
| COGNATE | HIST 110 - (CH) History of the United States to 1877 or HIST 111 - (CH) History of the United States from Reconstruction to the Present | | 3 |
| GE FSEM | First Year Seminar[2] | | |
| | | **15** | **15** |
| **Second Year** | | | |
| MAJOR | EDUC 220 Middle School Concept and Curriculum | | 3 |

| | | | |
|---|---|---|---|
| MAJOR | EDUC 246 Interdisciplinary Assessment, Grades 4-12 | 3 | |
| COGNATE | ENLT 140 - (CL) English Inquiry | 3 | |
| COGNATE | MATH 142 - (Q) Discrete Structures | 4 | |
| COGNATE | PS 120 - (S) U.S. Politics: Principles & Citizenship | 3 | |
| COGNATE | (CL) ENLT 12X – ENLT 12X | | 3 |
| GE T/RS | T/RS 122 - (P) Theology II: Introduction to Christian Theology | | 3 |
| COGNATE | CHEM 100 - (E) Elements of Chemistry | | 3 |
| COGNATE | MATH 114 - (Q) Calculus I | 4 | |
| COGNATE | MATH 221 - Calculus II | | 4 |
| | | **17** | **16** |
| **Third Year** | | | |
| MAJOR | EDUC 363 - (EPW) Foundations of Literacy Development II | 3 | |
| MAJOR | EDUC 358 - Reading to Learn with Trade Books & Texts | | 3 |
| MAJOR | EDUC 359 - (D) Introduction to English Language Learning | 3 | |
| MAJOR | EDUC 370 Inclusionary Classroom Practices, Grades 4-12 | 3 | |
| MAJOR | EDUC 357 Integrated Methods Across Curriculum | | 3 |
| MAJOR | EDUC 316 - Subject Methods: Mathematics/Science | 1 | |
| COGNATE | MATH 204 - (Q) Introduction to Statistics | 3 | |
| COGNATE | MATH ELECT – Any Math course above 221 that is three credits | | 3 |
| COGNATE | WRTG 310 - Strategies for Teaching Writing | 3 | |
| GE PHIL | PHIL 120 - Introduction to Philosophy | | 3 |
| GE PHIL | PHIL 210 - Ethics (P) | | 3 |
| COGNATE | PHYS 107 - (E) "Hands-On" Physics | | 3 |
| | | **16** | **18** |
| **Fourth Year** | | | |
| COGNATE | ECO 410 - Economic Concepts and Applications | 3 | |
| COGNATE | PHYS 102 - (E) Earth Science | 3 | |
| GE HUMN | (CA, CH, OR CF) Humanities Elective – HUMN ELECT (Arts, History or Language) | 3 | |

| | | | |
|---|---|---|---|
| GE PHIL or T/RS | (P) PHIL ELECT - Philosophy Elective or T/RS ELECT - T/RS Elective | 3 | |
| COGNATE | MATH ELECT - Any Math course above 221 that is three credits | 3 | |
| COGNATE | MATH ELECT - Any Math course above 221 that is three credits | 3 | |
| MAJOR | EDUC 450 - Professional Practice Seminar, 4-8[3] | | 3 |
| MAJOR | EDUC 452 - Planning in Middle Level Student Teaching (Gr. 4-8)[4]<br>EDUC 453 - Instruction in Middle Level Student Teaching (Gr. 4-8)<br>EDUC 454 - Managing Classrooms in Middle Level Student Teaching (Gr. 4-8)<br>EDUC 455 - Professional Growth in Middle Level Student Teaching (Gr. 4-8) | | 10 |
| | | **18** | **13** |
| | | | **Total: 128 Credits** |

[1] *This course must meet the FYOC and FYDT designations for Eloquentia Perfecta.*

[2]*The selection of a First Year Seminar is likely to fulfill requirements both for the First Year Seminar and a General Education Requirement. Thus, the First Year Seminar will not add to the total credits for the semester. Talk with your advisor if you have any questions.*

[3]*All undergraduate student teachers will be required to complete edTPA as part of the requirements for student teaching seminar.*

[4]*Students may complete student-teaching in the fall semester if the requirements for student-teaching are met at the beginning of the fall semester.*

## Middle Level Education (Science) Curriculum

| | ***Department and Number Descriptive Title of Course*** | ***Fall Cr.*** | ***Spr. Cr.*** |
|---|---|---|---|
| **First Year** | | | |
| MAJOR | EDUC 142 - (D,S) Exceptional Lives | 3 | |
| COGNATE | BIOL 141 - (E) (FYOC, FYDT Lab only) General Biology (with Lab) | 4.5 | |
| COGNATE | CHEM 112 (E) General and Analytical Chemistry (with Lab) | 4.5 | |
| MAJOR | EDUC 223 - (EPW) Educational Psychology, GR 4-12 | | 3 |
| COGNATE | MATH 102 - (Q) Fundamentals of Numerical Mathematics | 3 | |
| GE WRTG | WRTG 107 - (FYW) Composition | 3 | |
| EP ELEC | EP ELEC - Eloquentia Perfecta[1] | | 3 |
| COGNATE | BIOL 142 - (E) (FYOC, FYDT Lab only) General Biology (with Lab) | | 4.5 |
| GE T/RS | T/RS 121 - (P) Theology I: Introduction to the Bible | | 3 |
| COGNATE | CHEM 113 - (E) General and Analytical Chemistry (with Lab) | | 4.5 |
| GE FSEM | First Year Seminar[2] | | |
| | | **18** | **18** |

| | | | |
|---|---|---|---|
| **Second Year** | | | |
| MAJOR | EDUC 220 - Middle School Concept and Curriculum | | 3 |
| COGNATE | MATH 204 - (Q) Introduction to Statistics | 3 | |
| MAJOR | EDUC 246 Interdisciplinary Assessment, Grades 4-12 | 3 | |
| GE PHIL | PHIL 120 - Introduction to Philosophy | | 3 |
| GE T/RS | T/RS 122 - (P) Theology II: Introduction to Christian Theology | 3 | |
| COGNATE | MATH 109 - (Q) Pre-Calculus Mathematics | | 4 |
| COGNATE | MATH 105 - (Q) Fundamentals of Geometric Mathematics | | 3 |
| COGNATE | PS 120 - (S) U.S. Politics: Principles & Citizenship | 3 | |
| COGNATE | (CL) ENLT 12X – ENLT 12X | 3 | |
| COGNATE | PHYS 102 - (E) Earth Science | | 3 |
| | | **15** | **16** |
| **Third Year** | | | |
| MAJOR | EDUC 363 - (EPW) Foundations of Literacy Development II | 3 | |
| MAJOR | EDUC 358 - Reading to Learn with Trade Books & Texts | | 3 |
| MAJOR | EDUC 359 - (D) Introduction to English Language Learning | | 3 |
| MAJOR | EDUC 370 - Inclusionary Classroom Practices, Grades 4-12 | 3 | |
| MAJOR | EDUC 357 - Integrated Methods Across Curriculum | | 3 |
| MAJOR | EDUC 316 - Subject Methods: Mathematics/Science | 1 | |
| COGNATE | WRTG 310 - Strategies for Teaching Writing | 3 | |
| COGNATE | PHYS 120/PHYS 120L - (E) General Physics I | 4 | |
| COGNATE | PHYS 121/PHYS 121L - (E) General Physics II | | 4 |
| COGNATE | ENLT 140 - (CL) English Inquiry | | 3 |
| MAJOR | NSCI 384 – Advanced Topics in Science | | 1 |
| | | **14** | **17** |
| **Fourth Year** | | | |
| GE PHIL | PHIL 210 - Ethics | 3 | |
| COGNATE | ECO 410 - Economic Concepts and Applications | 3 | |

| | | | |
|---|---|---|---|
| GE HUMN | (C) HUMN ELECT - Humanities Elective (Hist, Lang or Arts) | 3 | |
| GE PHIL or T/RS | (P) PHIL - Philosophy or T/RS ELECT - T/RS Elective | 3 | |
| COGNATE | GEOG 134 - (S) World Regional Geography | 3 | |
| GE HUMN | HIST 110 - (CH) History of the United States to 1877 or HIST 111 - (CH) History of the United States from Reconstruction to the Present | 3 | |
| MAJOR | EDUC 450 - Professional Practice Seminar, 4-8[3] | | 3 |
| MAJOR | EDUC 452 - Planning in Middle Level Student Teaching (Gr. 4-8)[4]<br>EDUC 453 - Instruction in Middle Level Student Teaching (Gr. 4-8)<br>EDUC 454 - Managing Classrooms in Middle Level Student Teaching (Gr. 4-8)<br>EDUC 455 - Professional Growth in Middle Level Student Teaching (Gr. 4-8) | | 10 |
| | | **18** | **13** |
| | | | **Total: 129 Credits** |

[1]*This course must meet the FYOC and FYDT designations for Eloquentia Perfecta.*

[2] *The selection of a First Year Seminar is likely to fulfill requirements both for the First Year Seminar and a General Education Requirement. Thus, the First Year Seminar will not add to the total credits for the semester. Talk with your advisor if you have any questions.*

[3]*All undergraduate student teachers will be required to complete edTPA as part of the requirements for student teaching seminar.*

[4]*Students may complete student-teaching in the fall semester if the requirements for student-teaching are met at the beginning of the fall semester.*

## Middle Level Education (Social Studies) Curriculum

| | ***Department and Number Descriptive Title of Course*** | ***Fall Cr.*** | ***Spr. Cr.*** |
|---|---|---|---|
| **First Year** | | | |
| MAJOR | EDUC 142 - (D,S) Exceptional Lives | 3 | |
| COGNATE | GEOG 134 - (S) World Regional Geography | 3 | |
| MAJOR | EDUC 223 - (EPW) Educational Psychology, GR 4-12 | | 3 |
| COGNATE | MATH 102 - (Q) Fundamentals of Numerical Mathematics | 3 | |
| COGNATE | MATH 105 - (Q) Fundamentals of Geometric Mathematics | | 3 |
| GE WRTG | WRTG 107 - (FYW) Composition | 3 | |
| EP ELEC | EP ELEC - Eloquentia Perfecta[1] | | 3 |
| COGNATE | BIOL 102 - (E) Organisms, Evolution and Environment | 3 | |
| GE T/RS | T/RS 121 - (P) Theology I: Introduction to the Bible | | 3 |
| COGNATE | HIST 110 - (CH) History of the United States to 1877 or HIST 111 - (CH) History of the United States from Reconstruction to the Present | | 3 |

| | | | |
|---|---|---|---|
| GE FSEM | First Year Seminar[2] | | |
| | | **15** | **15** |
| **Second Year** | | | |
| MAJOR | EDUC 220 - Middle School Concept and Curriculum | | 3 |
| MAJOR | EDUC 246 - Interdisciplinary Assessment, Grades 4-12 | 3 | |
| COGNATE | ENLT 140 - (CL) English Inquiry | | 3 |
| COGNATE | MATH 204 - (Q) Introduction to Statistics | 3 | |
| COGNATE | PHYS 107 - (E) "Hands-On" Physics | | 3 |
| COGNATE | HIST 130 - (CH,D) World History I | 3 | |
| COGNATE | PS 120 - (S) U.S. Politics: Principles & Citizenship | 3 | |
| COGNATE | (CL) ENLT 12X – ENLT 12X | 3 | |
| GE T/RS | T/RS 122 - (P) Theology II: Introduction to Christian Theology | 3 | |
| COGNATE | HIST 131 - (CH,D) World History II | | 3 |
| COGNATE | PS 121 - (S) U.S. Politics: Institutions & Policy | | 3 |
| COGNATE | PS 135 - (S) State and Local Government | | 3 |
| | | **18** | **18** |
| **Third Year** | | | |
| MAJOR | EDUC 363 - (EPW) Foundations of Literacy Development II | 3 | |
| MAJOR | EDUC 358 - Reading to Learn with Trade Books & Texts | | 3 |
| MAJOR | EDUC 359 - (D) Introduction to English Language Learning | 3 | |
| MAJOR | EDUC 370 - Inclusionary Classroom Practices, Grades 4-12 | 3 | |
| MAJOR | EDUC 357 - Integrated Methods Across Curriculum | | 3 |
| MAJOR | EDUC 315 - Subject Methods: Citizenship/Communication/English | 1 | |
| COGNATE | MATH 106 - (Q) Quantitative Methods I or MATH 107 - (Q) Quantitative Methods II | | 3 |
| COGNATE | WRTG 310 - Strategies for Teaching Writing | 3 | |
| GE PHIL | PHIL 120 - Introduction to Philosophy | | 3 |
| COGNATE | PHYS 102 - (E) Earth Science | 3 | |
| GE PHIL | PHIL 210 - Ethics | | 3 |

| | | | |
|---|---|---|---|
| | | **16** | **15** |
| **Fourth Year** | | | |
| COGNATE | ECO 410 - Economic Concepts and Applications | 3 | |
| COGNATE | PS 212 - (S) International Relations | 3 | |
| GE PHIL or T/RS | PHIL or T/RS ELECT – Philosophy or T/RS Elective | 3 | |
| COGNATE | CHEM 100 - (E) Elements of Chemistry | 3 | |
| COGNATE | HIST ELECT - History Elective at 200 level or above | 3 | |
| MAJOR | EDUC 450 - Professional Practice Seminar, 4-8[3] | | 3 |
| MAJOR | EDUC 452 - Planning in Middle Level Student Teaching (Gr. 4-8)[4]<br>EDUC 453 - Instruction in Middle Level Student Teaching (Gr. 4-8)<br>EDUC 454 - Managing Classrooms in Middle Level Student Teaching (Gr. 4-8)<br>EDUC 455 - Professional Growth in Middle Level Student Teaching (Gr. 4-8) | | 10 |
| | | **15** | **13** |
| | | | **Total: 125 Credits** |

[1]*This course must meet the FYOC an FYDT designations for Eloquentia Perfecta.*

[2]*The selection of a First Year Seminar is likely to fulfill requirements both for the First Year Seminar and a General Education Requirement. Thus, the First Year Seminar will not add to the total credits for the semester. Talk with your advisor if you have any questions.*

[3]*All undergraduate student teachers will be required to complete edTPA as part of the requirements for student teaching seminar.*

[4]*Students may complete student-teaching in the fall semester if the requirements for student-teaching are met at the beginning of the fall semester.*

# Education, Secondary, BS

## Teacher Candidacy Screening

All teacher candidacy requirements are completed using Taskstream. The following outline presents criteria for the teacher candidacy programs.

1. Verification of at least 48 semester hours in order to meet PDE chapter 354.23 regulations.
2. Verification of at least 3.00 GPA in Education, teaching area, and overall, with verification of "C" or above in education and teaching area courses taken by the time of application.
3. Clearances: Valid PA Criminal Record Check (Act 34), PA Child Abuse Clearance (Act 151), and Federal Criminal History Record Information - FBI Fingerprinting (Act 114) indicating "no record," as well as the Arrest/Conviction Report and Certification Form (Act 24) and TB test results. Any citation on the Act 34, act 151 or Act 114 will result in unsuccessful screening.
4. Passing scores on the PAPA examinations (Reading, Writing, Mathematics) or Praxis I Core Exam.
5. Satisfactory completion of a candidacy interview process as designed and implemented by the Education Department.

6. Completed recommendations from instructors in the following courses.

   EDUC 142 - (D,S) Exceptional Lives

   EDUC 223 - (EPW) Educational Psychology, GR 4-12

More specific criteria for teacher candidacy for each program is shown below. More information is provided by the Undergraduate Program Director at scheduled meetings each semester.

# Teacher Candidacy Requirements:

## Basic Requirements for All Secondary Education Programs

(see further requirements for Individual Programs below)

Completion of the following courses with a minimum grade of C:

- EDUC 142 - (D,S) Exceptional Lives
- EDUC 223 - (EPW) Educational Psychology, GR 4-12
- WRTG 107 - (FYW) Composition (or WRTG 105 + WRTG 106)
- ENLT- Elective
- 6 semester credit hours of college-level mathematics at the 102 or higher level as outlined below.

## Individual Secondary Education Programs

In addition to the Basic Education Requirements outlined above, students must also meet the following concentration requirements for their program of study. Students must complete the following courses with a minimum grade of C:

### *Biology*

- MATH 114 - (Q) Calculus I
- 3 credit statistics elective
- Completed recommendations from instructors in the following courses: BIOL 141 (E) General Biology or BIOL 142 (E) General Biology, BIOL 141L or BIOL 142L and any other science course

### *Chemistry*

- MATH 114 - (Q) Calculus I
- MATH 221 - Calculus II
- Completed recommendations from instructors in the following courses: CHEM 112 (E) General and Analytical Chemistry or CHEM 113 (E) General and Analytical Chemistry, CHEM 112L or CHEM 113L and any other science course

### *Citizenship with History*

- 3-credit statistics elective
- 3-credit non-remedial, college-level mathematics course at the 102 level or higher
- Completed recommendations from instructors in the following courses: HIST 120 - (CH) Europe: 1500 to the Present or HIST 121 - (CH) Europe: 1815 to Present, HIST 110 - (CH) History of the United States to 1877 or HIST 111 - (CH) History of the United States from Reconstruction to the Present, and one other History, Political Science or Sociology course

### *Citizenship with Political Science*

- PS 210 - (Q,EPW) Political Science Research
- 3-credit non-remedial, college-level mathematics course at the 102 level or higher

- Completed recommendations from instructors in the following courses: HIST 121 - (CH) Europe: 1815 to Present or HIST 120 - (CH) Europe: 1500 to the Present, HIST 110 (CH) History of the United States to 1877 or HIST 111 (CH) History of the United States from Reconstruction to the Present, and one other History, Political Science or Sociology course

### *Communication*

- ENLT 140 - (CL) English Inquiry (or another ENLT course at the 120 level or higher)
- A 3-credit course in college-level English or American Literature
- Six (6) semester hour credits of college-level mathematics at the 102 or higher level
- Completed recommendations from instructors in any two Communication courses

### *English*

- ENLT 140 - (CL) English Inquiry (or another ENLT course at the 120 level or higher)
- 3-credit course in college-level English or American Literature
- Six (6) semester hour credits of college-level mathematics at the 102 or higher level
- Completed recommendations from instructors in the following courses: ENLT 140 - (CL) English Inquiry and any two other English courses

### *General Science*

- MATH 109 - (Q) Pre-Calculus Mathematics

  or

  MATH 114 - (Q) Calculus I
- 3-credit statistics elective
- Completed recommendations from instructors in the following courses:
- BIOL 141 - (E) (FYOC, FYDT Lab only) General Biology or BIOL 142 - (E) (FYOC, FYDT Lab only) General Biology, CHEM 112 - (E) General and Analytical Chemistry or CHEM 113 - (E) General and Analytical Chemistry and any one lab course

### *Latin*

- Six (6) semester hour credits of college-level mathematics at the 102 or higher level
- Completed recommendations from any two language courses

### *Mathematics*

- MATH 114 - (Q) Calculus I
- MATH 221 - Calculus II
- Completed recommendations from instructors in the following courses: MATH 114 - (Q) Calculus I, MATH 221 - Calculus II

### *Modern Language*

- Six (6) semester hour credits of college-level mathematics at the 102 or higher level
- Completed recommendations from any two language courses

### *Physics*

- MATH 114 - (Q) Calculus I
- MATH 221 - Calculus II
- Completed recommendations from instructors in the following courses: PHYS 140/PHYS 140L - (E) Elements of Physics I (with Lab) or PHYS 141/PHYS 141L - (E) Elements of Physics II (with Lab) and any other science course

## Student Teaching Requirements

The culminating experience in the Teacher Education Program is student teaching. To apply for student teaching, the student will have:

- completed or be currently enrolled in all major courses required to be completed prior to student teaching (as noted on specific program guides),
- earned a grade of "C" or better in major courses completed prior to student teaching,
- earned a grade of "C" or better in teaching area courses completed prior to student teaching,
- obtained a GPA of 3.00 or greater in major courses, teaching area courses, and overall.

**(All major courses must be completed prior to student teaching as noted in specific program guides; not all teaching area courses must be completed before student teaching.)**

Students must demonstrate that these requirements are still met at the end of the fall or spring semester of application to student teach.

## Secondary Education (Biology) Curriculum (See footnote 6 below)

| | *Department and Number - Descriptive Title of Course* | *Fall Cr.* | *Spr. Cr.* |
|---|---|---|---|
| **First Year** | | | |
| GE S/BH | EDUC 142 - (D,S) Exceptional Lives | 3 | |
| COGNATE | BIOL 141 - (E) (FYOC, FYDT Lab only) General Biology – BIOL 142 - (E) (FYOC, FYDT Lab only) General Biology | 4.5 | 4.5 |
| COGNATE | CHEM 112-113 - (E) General and Analytical Chemistry/CHEM 112L-113L | 4.5 | 4.5 |
| GE WRTG | WRTG 107 - (FYW) Composition | 3 | |
| EP ELEC | EP ELEC - Eloquentia Perfecta[1] | | 3 |
| GE PHIL | PHIL 120 - Introduction to Philosophy | | 3 |
| GE S/BH | EDUC 223 - (EPW) Educational Psychology, GR 4-12 | | 3 |
| GE FSEM | First Year Seminar[2] | | |
| | | **15** | **18** |
| **Second Year** | | | |
| COGNATE | CHEM 232 - (E) Organic Chemistry – CHEM 233 - (E) Organic Chemistry | 3 | 3 |
| COGNATE | BIOL 349 - Plant Physiology (S) (without Lab) | | 3 |
| GE QUAN | MATH 114 - (Q) Calculus I | 4 | |
| GE NSCI | PHYS 102 - (E) Earth Science | | 3 |
| GE HUMN | LIT ELECT/ELECT – Literature/Humanities Electives | 3 | 3 |

| | | | |
|---|---|---|---|
| MAJOR | EDUC 246 - Interdisciplinary Assessment, Grades 4-12 | 3 | |
| GE ELECT | STAT ELECT - Statistics Elective | 3 | |
| GE PHIL | PHIL 210 - Ethics | | 3 |
| GE T/RS | T/RS 121 - (P) Theology I: Introduction to the Bible | | 3 |
| | | **16** | **18** |
| **Third Year** | | | |
| MAJOR | EDUC 370 - Inclusionary Classroom Practices, Grades 4-12 | 3 | |
| MAJOR | EDUC 311 - Planning and Instruction, Grades 7-12 | 3 | |
| MAJOR | EDUC 371 - (EPW) Literacy Strategies in Secondary School | | 3 |
| MAJOR | EDUC 359 - (D) Introduction to English Language Learning | | 3 |
| COGNATE | BIOL 250 - Microbiology (MC) (with Lab) | 5 | |
| COGNATE | BIOL 370 - (W: lab only) Animal Behavior (MO) (with Lab) | | 4.5 |
| COGNATE | BIOL 375 - Evolution (MO) | 3 | |
| COGNATE | BIOL 361 - Molecular Biology I (MC) | | 5 |
| GE HUMN | HUMN ELECT - Humanities Elective | 3 | |
| GE ELECT | BIOL 273 - Marine Ecology (MO) or BIOL 473 - Estuarine Ecology (MO) (without Lab) | | 3 |
| | | **17** | **18.5** |
| **Fourth Year** | | | |
| MAJOR | EDUC 475 - Professional Seminar[3] | | 3 |
| MAJOR | EDUC 476 - Planning in Secondary Student Teaching[4] | | 2 |
| MAJOR | EDUC 477 - Instruction in Secondary Student Teaching | | 3 |
| MAJOR | EDUC 478 - Managing Classrooms in Secondary Student Teaching | | 2 |
| MAJOR | EDUC 479 - Professional Growth in Secondary Student Teaching | | 3 |
| MAJOR | EDUC 316 - Subject Methods: Mathematics/Science | 1 | |
| GE HUMN | HUMN ELECT - Humanities Elective[5] | 3 | |
| COGNATE | BIOL 371 - (EPW: Lab only) Ecology (MO) (without Lab) | 3 | |
| GE T/RS | T/RS 122 - (P) Theology II: Introduction to Christian Theology | 3 | |
| GE NSCI | PHYS 120/PHYS 120L - (E) General Physics I (with Lab) | 4 | |

| | | | |
|---|---|---|---|
| GE PHIL | PHIL 306 - (P) Philosophy of Education | 3 | |
| | | **17** | **13** |
| | **Total: 132.5 Credits** | | |

[1]*This course must meet FYOC and FYDT designations for Eloquentia Perfecta.*

[2]*The selection of a First Year Seminar is likely to fulfill requirements both for the First Year Seminar and a General Education Requirement. Thus, the First Year Seminar will not add to the total credits for the semester. Talk with your advisor if you have any questions.*

[3]*All undergraduate student teachers will be required to complete edTPA as part of the requirements for student teaching seminar.*

[4]*Students may complete student-teaching in the fall semester if the requirements for student-teaching are met at the beginning of the fall semester.*

[5]*Humanities Electives: Students must earn 6 credits in Literature or Foreign Language with no more than 3 credits in Art or Music.*

[6]*For a second major in Biology, an additional 6.5 credits in Biology, CHEM 232L and CHEM 233L, PHYS 121/PHYS 121L (with Lab), and 4 elective credits in Chemistry, Math or Physics are required.*

## Secondary Education (Chemistry) Curriculum (See footnote 6 below)

| | ***Department and Number - Descriptive Title of Course*** | ***Fall Cr.*** | ***Spr. Cr*** |
|---|---|---|---|
| **First Year** | | | |
| GE S/BH | EDUC 142 - (D,S) Exceptional Lives | 3 | |
| GE NSCI | CHEM 112-113 - (E) General and Analytical Chemistry/CHEM 112L-113L | 4.5 | 4.5 |
| GE WRTG | WRTG 107 - (FYW) Composition | 3 | |
| EP ELEC | EP ELEC - Eloquentia Perfecta[1] | | 3 |
| GE QUAN | MATH 114 - (Q) Calculus I | 4 | |
| GE S/BH | EDUC 223 - (EPW) Educational Psychology, GR 4-12 | | 3 |
| GE PHIL | PHIL 120 - Introduction to Philosophy | | 3 |
| GE HUMN | LIT ELECT - Literature Elective | 3 | |
| GE ELECT | MATH 221 - Calculus II | | 4 |
| GE FSEM | First Year Seminar[2] | | |
| | | **17.5** | **17.5** |
| **Second Year** | | | |
| COGNATE | CHEM 232 - (E) Organic Chemistry/CHEM 232L – CHEM 233 - (E) Organic Chemistry/CHEM 233L | 4.5 | 4.5 |
| COGNATE | PHYS 140/PHYS 140L - (E) Elements of Physics I – PHYS 141/PHYS 141L - (E) Elements of Physics II | 4 | 4 |

| | | | |
|---|---|---|---|
| COGNATE | CHEM 240 - Inorganic Chemistry | | 3 |
| GE T/RS | T/RS 121 - (P) Theology I: Introduction to the Bible – T/RS 122 - (P) Theology II: Introduction to Christian Theology | 3 | 3 |
| MAJOR | EDUC 246 - Interdisciplinary Assessment, Grades 4-12 | 3 | |
| GE PHIL | PHIL 210 - Ethics | | 3 |
| GE ELECT | MATH 222 - Calculus III | 4 | |
| | | **18.5** | **17.5** |
| **Third Year** | | | |
| MAJOR | EDUC 370 - Inclusionary Classroom Practices, Grades 4-12 | 3 | |
| MAJOR | EDUC 311 - Planning and Instruction, Grades 7-12 | 3 | |
| MAJOR | EDUC 371 - (EPW) Literacy Strategies in Secondary School | | 3 |
| MAJOR | EDUC 359 - (D) Introduction to English Language Learning | | 3 |
| COGNATE | CHEM 362 - Physical Chemistry I/CHEM 362L – CHEM 363 - Physical Chemistry II/CHEM 363L | 4.5 | 4.5 |
| COGNATE | CHEM 344 - Environmental Geochemistry | | 3 |
| COGNATE | BIOL 141 - (E) (FYOC, FYDT Lab only) General Biology | 3 | |
| COGNATE | CHEM 370 - Instrumental Analysis — CHEM 370L - Instrumental Analysis Laboratory | 3 | 3 |
| GE HUMN | HUMN ELECT - Humanities Elective | 3 | |
| | | **19.5** | **16.5** |
| **Fourth Year** | | | |
| MAJOR | EDUC 475 - Professional Seminar[3] | | 3 |
| MAJOR | EDUC 476 - Planning in Secondary Student Teaching[4] | | 2 |
| MAJOR | EDUC 477 - Instruction in Secondary Student Teaching | | 3 |
| MAJOR | EDUC 478 - Managing Classrooms in Secondary Student Teaching | | 2 |
| MAJOR | EDUC 479 - Professional Growth in Secondary Student Teaching | | 3 |
| MAJOR | EDUC 316 - Subject Methods: Mathematics/Science | 1 | |
| COGNATE | CHEM 440 - Advanced Inorganic Chemistry | 3 | |
| COGNATE | CHEM 350 - General Biochemistry I | 3 | |
| GE PHIL | PHIL 306 - (P) Philosophy of Education | 3 | |

| | | | |
|---|---|---|---|
| GE HUMN | HUMN ELECT - Humanities Electives[5] | 6 | |
| GE ELECT | CHEM 493 - Undergraduate Research – CHEM 494 - Undergraduate Research | 1.5 | 1.5 |
| | | **17.5** | **14.5** |
| | | | **Total: 139 Credits** |

[1] *This course must meet the FYOC and FYDT designations for Eloquentia Perfecta.*

[2] *The selection of a First Year Seminar is likely to fulfill requirements both for the First Year Seminar and a General Education Requirement. Thus, the First Year Seminar will not add to the total credits for the semester. Talk with your advisor if you have any questions.*

[3]*All undergraduate student teachers will be required to complete edTPA as part of the requirements for student teaching seminar.*

[4]*Students may complete student-teaching in the fall semester if the requirements for student-teaching are met at the beginning of the fall semester.*

[5]*Humanities Electives: Students must earn 6 credits in Literature or Foreign Language with no more than 3 credits in Art or Music.*

[6]*For a second major in Chemistry, the following are required: CHEM 330, CHEM 390 and CHEM 440L.*

## Secondary Education (Citizenship with History) Curriculum (See footnote 7 below)

| | ***Department and Number - Descriptive Title of Course*** | ***Fall Cr.*** | ***Spr. Cr.*** |
|---|---|---|---|
| **First Year** | | | |
| GE S/BH | EDUC 142 - (D,S) Exceptional Lives | 3 | |
| COGNATE | HIST 110 - (CH) History of the United States to 1877 – HIST 111 - (CH) History of the United States from Reconstruction to the Present | 3 | 3 |
| GE WRTG | WRTG 107 - (FYW) Composition | 3 | |
| EP ELEC | EP ELEC - Eloquentia Perfecta[1] | | 3 |
| GE QUAN–STAT | MATH ELECT - Mathematics Elective – STAT ELECT - Statistics Elective | 3 | 3 |
| GE T/RS | T/RS 121 - (P) Theology I: Introduction to the Bible | 3 | |
| GE S/BH | EDUC 223 - (EPW) Educational Psychology, GR 4-12 | | 3 |
| GE FSEM | First Year Seminar[2] | | |
| GE NSCI | ELECT - Natural Science Elective | | 3 |
| | | **15** | **15** |
| **Second Year** | | | |
| MAJOR | EDUC 246 - Interdisciplinary Assessment, Grades 4-12 | 3 | |
| COGNATE | GEOG 134 - (S) World Regional Geography | | 3 |

| | | | |
|---|---|---|---|
| COGNATE | HIST 290 - (EPW) The Craft of the Historian | 3 | |
| COGNATE | PS 120 - (S) U.S. Politics: Principles & Citizenship – PS 121 - (S) U.S. Politics: Institutions & Policy | 3 | 3 |
| GE HUMN | LIT ELECT - Literature Elective | 3 | |
| GE PHIL | PHIL 120 - Introduction to Philosophy | | 3 |
| GE HUMN | HIST 120 - (CH) Europe: 1500 to the Present – HIST 121 - (CH) Europe: 1815 to Present | 3 | 3 |
| GE NSCI | NSCI ELECT - Natural Science Elective | | 3 |
| GE T/RS | T/RS 122 - (P) Theology II: Introduction to Christian Theology | | 3 |
| GE ELECT | PS 135 - (S) State and Local Government | 3 | |
| | | **18** | **18** |
| **Third Year** | | | |
| MAJOR | EDUC 370 - Inclusionary Classroom Practices, Grades 4-12 | 3 | |
| MAJOR | EDUC 311 - Planning and Instruction, Grades 7-12 | 3 | |
| MAJOR | EDUC 371 - (EPW) Literacy Strategies in Secondary School | | 3 |
| MAJOR | EDUC 359 - (D) Introduction to English Language Learning | | 3 |
| COGNATE | HIST 219 - (CH,D) Modern World History | 3 | |
| COGNATE | HIST 214 - (CH,D) History of Contemporary World Politics | | 3 |
| COGNATE | HIST ELECT – History Elective | 3 | 3 |
| COGNATE | HIST ELECT – Minority History | 3 | |
| GE PHIL | PHIL 210 - Ethics | | 3 |
| GE HUMN | HUMN ELECT - Humanities Elective | | 3 |
| GE ELECT | PS 212 - (S) International Relations | 3 | |
| | | **18** | **18** |
| **Fourth Year** | | | |
| MAJOR | EDUC 475 - Professional Seminar[3] | | 3 |
| MAJOR | EDUC 476 - Planning in Secondary Student Teaching[4] | | 2 |
| MAJOR | EDUC 477 - Instruction in Secondary Student Teaching | | 3 |
| MAJOR | EDUC 478 - Managing Classrooms in Secondary Student Teaching | | 2 |

| | | | |
|---|---|---|---|
| MAJOR | EDUC 479 - Professional Growth in Secondary Student Teaching | | 3 |
| MAJOR | EDUC 315 - Subject Methods: Citizenship/Communication/English | 1 | |
| COGNATE | HIST ELECT – History Electives | 6 | |
| GE PHIL | PHIL 306 - (P) Philosophy of Education | 3 | |
| GE ELECT | ECO 410 - Economic Concepts and Applications[5] | 3 | |
| GE ELECT | HIST 490 - (EPW) Seminar in History[6] | 3 | |
| | | **16** | **13** |
| | | | **Total: 131 Credits** |

[1]*This course must meet the FYOC and FYDT designations for Eloquentia Perfecta.*

[2]*The selection of a First Year Seminar is likely to fulfill requirements both for the First Year Seminar and a General Education Requirement. Thus, the First Year Seminar will not add to the total credits for the semester. Talk with your advisor if you have any questions.*

[3]*All undergraduate student teachers will be required to complete edTPA as part of the requirements for student teaching seminar.*

[4]*Students may complete student-teaching in the fall semester if the requirements for student-teaching are met at the beginning of the fall semester*

[5]*Humanities Electives: Students must earn 6 credits in Literature or Foreign Language with no more than 3 credits in Art or Music.*

[6]*Students may substitute the Seminar with a 300- or 400-level course with permission of the History Department Chair.*

[7] *Secondary Education/Citizenship-History Majors will complete a second major in History.*

## Secondary Education (Citizenship with Political Science) Curriculum (See footnote 6 below)

| | ***Department and Number - Descriptive Title of Course*** | ***Fall Cr.*** | ***Spr. Cr.*** |
|---|---|---|---|
| **First Year** | | | |
| GE S/BH | EDUC 142 - (D,S) Exceptional Lives | 3 | |
| COGNATE | HIST 110 - (CH) History of the United States to 1877 – HIST 111 - (CH) History of the United States from Reconstruction to the Present | 3 | 3 |
| GE WRTG | WRTG 107 - (FYW) Composition | 3 | |
| EP ELEC | EP ELEC - Eloquentia Perfecta[1] | | 3 |
| GE QUAN–STAT | MATH ELECT - Mathematics Elective – PS 210 - (Q,EPW) Political Science Research | 3 | 3 |
| COGNATE | PS 120 - (S) U.S. Politics: Principles & Citizenship | 3 | |
| COGNATE | PS 121 - (S) U.S. Politics: Institutions & Policy | | 3 |
| GE S/BH | EDUC 223 - (EPW) Educational Psychology, GR 4-12 | | 3 |

| | | | |
|---|---|---|---|
| GE FSEM | First Year Seminar[2] | | |
| | | **15** | **15** |
| **Second Year** | | | |
| MAJOR | EDUC 246 - Interdisciplinary Assessment, Grades 4-12 | 3 | |
| COGNATE | GEOG 134 - (S) World Regional Geography | | 3 |
| COGNATE | PS ELECT - Political Science Elective | | 3 |
| GE T/RS | T/RS 121 - (P) Theology I: Introduction to the Bible | 3 | |
| GE HUMN | LIT ELECT - Literature Elective | 3 | |
| GE PHIL | PHIL 120 - Introduction to Philosophy | | 3 |
| GE HUMN | HIST 120 - (CH) Europe: 1500 to the Present – HIST 121 - (CH) Europe: 1815 to Present | 3 | 3 |
| GE ELECT | PS 135 - (S) State and Local Government | | 3 |
| GE NSCI | NSCI ELECT - Natural Science Elective | 6 | |
| | | **18** | **15** |
| **Third Year** | | | |
| MAJOR | EDUC 370 - Inclusionary Classroom Practices, Grades 4-12 | 3 | |
| MAJOR | EDUC 311 - Planning and Instruction, Grades 7-12 | 3 | |
| MAJOR | EDUC 371 - (EPW) Literacy Strategies in Secondary School | | 3 |
| MAJOR | EDUC 359 - (D) Introduction to English Language Learning | | 3 |
| COGNATE | PS 313 - (D) Classical Political Ideas **or** PS 314 - (D) Modern Political Ideas | 3 | |
| COGNATE | PS 217 - Comparative Government | | 3 |
| COGNATE | PS ELECT - Political Science Electives | 3 | 6 |
| COGNATE | PHIL 210 - Ethics | | 3 |
| GE T/RS | T/RS 122 - (P) Theology II: Introduction to Christian Theology | 3 | |
| GE ELECT | PS 212 - (S) International Relations | 3 | |
| | | **18** | **18** |
| **Fourth Year** | | | |
| MAJOR | EDUC 475 - Professional Seminar[3] | | 3 |
| MAJOR | EDUC 476 - Planning in Secondary Student Teaching[4] | | 2 |

| | | | |
|---|---|---|---|
| MAJOR | EDUC 477 - Instruction in Secondary Student Teaching | | 3 |
| MAJOR | EDUC 478 - Managing Classrooms in Secondary Student Teaching | | 2 |
| MAJOR | EDUC 479 - Professional Growth in Secondary Student Teaching | | 3 |
| MAJOR | EDUC 315 - Subject Methods: Citizenship/Communication/English | 1 | |
| COGNATE | PS ELECT – Political Science Electives | 6 | |
| GE PHIL | PHIL 306 - (P) Philosophy of Education | 3 | |
| GE HUMN | HUMN ELECT - Humanities Elective[5] | 3 | |
| GE ELECT | ECO 410 - Economic Concepts and Applications | 3 | |
| | | **16** | **13** |
| | | | **Total: 128 Credits** |

[1]*This course must meet the FYOC and FYDT designations for Eloquentia Perfecta.*

[2]*The selection of a First Year Seminar is likely to fulfill requirements both for the First Year Seminar and a General Education Requirement. Thus, the First Year Seminar will not add to the total credits for the semester. Talk with your advisor if you have any questions.*

[3]*All undergraduate student teachers will be required to complete edTPA as part of the requirements for student teaching seminar.*

[4]*Students may complete student-teaching in the fall semester if the requirements for student-teaching are met at the beginning of the fall semester.*

[5]*Humanities Electives: Students must earn 6 credits in Literature, History, or Foreign Language with no more than 3 credits in Art or Music.*

[6]*Secondary Education/Citizenship-Political Science Majors will complete a second major in Political Science.*

## Secondary Education (Communication) Curriculum (See footnote 6 below)

| | ***Department and Number - Descriptive Title of Course*** | ***Fall Cr.*** | ***Spr. Cr.*** |
|---|---|---|---|
| **First Year** | | | |
| GE S/BH | EDUC 142 - (D,S) Exceptional Lives | 3 | |
| COGNATE | COMM 110 - (S) Interpersonal Communication or COMM 130 - History of Electronic Media | | 3 |
| COGNATE | COMM 115 - (EPW) Writing for Communication | | 3 |
| GE WRTG | WRTG 107 - (FYW) Composition | 3 | |
| EP ELEC | EP ELEC - Eloquentia Perfecta[1] | | 3 |
| GE QUAN | ELECT - Quant. Reasoning Elective | 3 | |
| GE PHIL–T/RS | PHIL 120 - Introduction to Philosophy – T/RS 121 - (P) Theology I: Introduction to the Bible | 3 | 3 |

| | | | |
|---|---|---|---|
| GE ELECT | ENLT 140 - (CL) English Inquiry | 3 | |
| GE S/BH | EDUC 223 - (EPW) Educational Psychology, GR 4-12 | | 3 |
| GE FSEM | First Year Seminar[2] | | |
| | | **15** | **15** |
| **Second Year** | | | |
| MAJOR | EDUC 246 - Interdisciplinary Assessment, Grades 4-12 | 3 | |
| COGNATE | COMM ELECT - Communication Electives[3] | 3 | |
| COGNATE | COMM ELECT - Communication Electives[3] | | 3 |
| COGNATE | ENLT ELECT - British Literature Elective | 3 | |
| GE T/RS | T/RS 122 - (P) Theology II: Introduction to Christian Theology | | 3 |
| GE HUMN | ENLT ELECT - American Literature Elective | | 3 |
| GE ELECT | WRTG 210 - (EPW) Advanced Composition | 3 | |
| GE NSCI | PSYC 105 - (E) Brain and Human Nature | | 3 |
| GE QUAN | STAT ELECT - Statistics Electives | 3 | |
| GE ELECT | COMM 210 - (EPW) Logical and Rhetorical Analysis | 3 | |
| GE HUMN | COMM 215 - Introduction to Communication Theory | | 3 |
| | | **18** | **15** |
| **Third Year** | | | |
| MAJOR | EDUC 370 - Inclusionary Classroom Practices, Grades 4-12 | 3 | |
| MAJOR | EDUC 311 - Planning and Instruction, Grades 7-12 | 3 | |
| MAJOR | EDUC 371 - (EPW) Literacy Strategies in Secondary School | | 3 |
| MAJOR | EDUC 359 - (D) Introduction to English Language Learning | | 3 |
| COGNATE | COMM 316 - Communication Ethics | 3 | |
| COGNATE | COMM ELECT - Communication Electives | 6 | 3 |
| GE PHIL | PHIL 210 - Ethics | | 3 |
| GE PHIL | ENLT ELECT - English Elective | | 3 |
| GE ELECT | ENLT ELECT - Theatre Elective | | 3 |
| GE NSCI | NSCI ELECT - Natural Science Elective | 3 | |

| | | | |
|---|---|---|---|
| | | **18** | **18** |
| **Fourth Year** | | | |
| MAJOR | EDUC 475 - Professional Seminar[4] | | 3 |
| MAJOR | EDUC 476 - Planning in Secondary Student Teaching[5] | | 2 |
| MAJOR | EDUC 477 - Instruction in Secondary Student Teaching | | 3 |
| MAJOR | EDUC 478 - Managing Classrooms in Secondary Student Teaching | | 2 |
| MAJOR | EDUC 479 - Professional Growth in Secondary Student Teaching | | 3 |
| MAJOR | EDUC 315 - Subject Methods: Citizenship/Communication/English | 1 | |
| COGNATE | COMM 415 - Senior Seminar | 3 | |
| COGNATE | ELECT - Communication Elective | 3 | |
| GE PHIL | PHIL 306 - (P) Philosophy of Education | 3 | |
| GE ELECT | ENLT 462 - Literary Criticism and Theory | 3 | |
| GE HUMN | ELECT - World Literacy Elective | 3 | |
| | | **16** | **13** |
| | | | **Total: 128 Credits** |

[1]*This course must meet the FYOC and FYDT designations for Eloquentia Perfecta.*

[2]*The selection of a First Year Seminar is likely to fulfill requirements both for the First Year Seminar and a General Education Requirement. Thus, the First Year Seminar will not add to the total credits for the semester. Talk with your advisor if you have any questions.*

[3]*The following classes are recommended – but not required – as options for elective choices: COMM 211 - Argumentation and Debate, COMM 214 - Small Group Communication, COMM 228 - (D) Intercultural Communication, COMM 224 - (EPW) Media Writing.*

[4]*All undergraduate student teachers will be required to complete edTPA as part of the requirements for student teaching seminar.*

[5]*Students may complete student-teaching in the fall semester if the requirements for student-teaching are met at the beginning of the fall semester*

[6]The course configuration allows for a minor in English with careful planning. It is the student's responsibility to plan for a minor if one is desired.

## Secondary Education (English) Curriculum (See footnote 7 below)

| | ***Department and Number - Descriptive Title of Course*** | ***Fall Cr.*** | ***Spr. Cr.*** |
|---|---|---|---|
| **First Year** | | | |
| GE S/BH | EDUC 142 - (D,S) Exceptional Lives | 3 | |
| COGNATE | ENLT 140 - (CL) English Inquiry | 3 | |
| GE WRTG | WRTG 107 (FYW) Composition | 3 | |

| | | | |
|---|---|---|---|
| GE HUMN | GE HUMN - (CL) World Literature | | 3 |
| EP ELEC | EP ELEC - Eloquentia Perfecta[1] | | 3 |
| GE QUAN | QUAN ELEC - Quantitative Elective | 3 | |
| GE NSCI | NSCI - Natural Science Elective | | 3 |
| GE PHIL–T/RS | PHIL 120 - Introduction to Philosophy – T/RS 121 - (P) Theology I: Introduction to the Bible | 3 | 3 |
| GE S/BH | EDUC 223 - (EPW) Educational Psychology, GR 4-12 | | 3 |
| GE FSEM | First Year Seminar[2] | | |
| | | **15** | **15** |
| **Second Year** | | | |
| MAJOR | EDUC 246 - Interdisciplinary Assessment, Grades 4-12 | 3 | |
| COGNATE | ELECT – ENLT Area Requirements | 6 | 3 |
| COGNATE | ENLT 220 - (CL) Shakespeare or ENLT 341 - (CL) Shakespeare: Special Topics | | 3 |
| GE PHIL | PHIL 210 - Ethics | 3 | |
| GE ELECT | WRTG ELECT - 200 level WRTG[3] | | 3 |
| GE NSCI | NSCI - Natural Science Electives | | 3 |
| GE ELECT | STAT ELECT - Statistics Elective | 3 | |
| GE ELECT | HUMN ELECT(other than CL) | | 3 |
| | | **15** | **15** |
| **Third Year** | | | |
| MAJOR | EDUC 370 - Inclusionary Classroom Practices, Grades 4-12 | 3 | |
| MAJOR | EDUC 362 - Psycholinguistics | 3 | |
| MAJOR | EDUC 311 - Planning and Instruction, Grades 7-12 | 3 | |
| MAJOR | EDUC 371 - (EPW) Literacy Strategies in Secondary School | | 3 |
| MAJOR | EDUC 359 - (D) Introduction to English Language Learning | | 3 |
| COGNATE | WRTG 310 - Strategies for Teaching Writing | 3 | |
| COGNATE | ELECT - ENLT Area Requirements | 3 | 6 |
| GE T/RS | T/RS 122 - (P) Theology II: Introduction to Christian Theology | 3 | |
| GE HUMN | HUMN - (CL, D) Global Anglo/Multi Ethnic American Elective | | 3 |

| | | | |
|---|---|---|---|
| | | **18** | **15** |
| **Fourth Year[5]** | | | |
| MAJOR | EDUC 475 - Professional Seminar[4] | | 3 |
| MAJOR | EDUC 476 - Planning in Secondary Student Teaching[6] | | 2 |
| MAJOR | EDUC 477 - Instruction in Secondary Student Teaching | | 3 |
| MAJOR | EDUC 478 - Managing Classrooms in Secondary Student Teaching | | 2 |
| MAJOR | EDUC 479 - Professional Growth in Secondary Student Teaching | | 3 |
| MAJOR | EDUC 315 - Subject Methods: Citizenship/Communication/English | 1 | |
| COGNATE | ENLT ELECT - Theory Intensive Elective[5] | 3 | |
| COGNATE | ENLT 490 - (W) Senior Seminar or ENLT 491 - (W) Senior Seminar | 3 | |
| GE PHIL | PHIL 306 - (P) Philosophy of Education | 3 | |
| GE ELECT | HUMN ELECT (other than CL) | 3 | |
| FREE ELECT | FREE ELECT - Free Elective | 3 | |
| | | **16** | **13** |
| | | | **Total: 122 Credits** |

[1]*This course must meet the FYOC and FYDT designations for Eloquentia Perfecta.*

[2] *The selection of a First Year Seminar is likely to fulfill requirements both for the First Year Seminar and a General Education Requirement. Thus, the First Year Seminar will not add to the total credits for the semester. Talk with your advisor if you have any questions.*

[3] *WRTG 211, WRTG 213, WRTG 214, WRTG 216, WRTG 218, WRTG 223 or WRTG 224.*

[4]*All undergraduate student teachers will be required to complete edTPA as part of the requirements for student teaching.*

[5] *Students who have not already done so must complete the English Department's Theory Intensive Requirement.*

[6] *Students may complete student-teaching in the fall semester if the requirements for student-teaching are met at the beginning of the fall semester.*

[7]*Secondary Education/English majors will complete a second major in English. English majors at The University of Scranton are required to take at least three courses in British literature, and at least three courses in American literature. These appear above as "Area Requirements." For further details, students should see English and Theatre Department and/or consult their English Department advisors.*

## Secondary Education (General Science) Curriculum

| | ***Department and Number - Descriptive Title of Course*** | ***Fall Cr.*** | ***Spr. Cr.*** |
|---|---|---|---|
| **First Year** | | | |
| GE S/BH | EDUC 142 - (D,S) Exceptional Lives | 3 | |

| | | | |
|---|---|---|---|
| COGNATE | BIOL 141 - (E) (FYOC, FYDT Lab only) General Biology – BIOL 142 - (E) (FYOC, FYDT Lab only) General Biology | 4.5 | 4.5 |
| EP ELEC | EP ELEC - Eloquentia Perfecta[1] | 3 | |
| GE WRTG | WRTG 107 - (FYW) Composition | 3 | |
| GE S/BH | EDUC 223 - (EPW) Educational Psychology, GR 4-12 | | 3 |
| GE QUAN | MATH 109 - (Q) Pre-Calculus Mathematics **or** MATH 114 - (Q) Calculus I | | 4 |
| GE PHIL | PHIL 120 - Introduction to Philosophy | 3 | |
| GE T/RS | T/RS 121 - (P) Theology I: Introduction to the Bible | | 3 |
| GE HUMN | LIT ELECT - Literature Elective | | 3 |
| GE FSEM | First Year Seminar[2] | | |
| | | **16.5** | **17.5** |
| **Second Year** | | | |
| COGNATE | PHYS 120/PHYS 120L - (E) General Physics I – PHYS 121/PHYS 121L - (E) General Physics II | 4 | 4 |
| COGNATE | CHEM 112-113 - (E) General and Analytical Chemistry/CHEM 112L-113L | 4.5 | 4.5 |
| COGNATE | STATS ELECT - Statistics Elective | | 3 |
| GE PHIL | PHIL 210 - Ethics | | 3 |
| GE T/RS | T/RS 122 - (P) Theology II: Introduction to Christian Theology | 3 | |
| MAJOR | EDUC 246 - Interdisciplinary Assessment, Grades 4-12 | 3 | |
| | | **14.5** | **14.5** |
| **Third Year** | | | |
| MAJOR | EDUC 370 - Inclusionary Classroom Practices, Grades 4-12 | 3 | |
| MAJOR | EDUC 311 - Planning and Instruction, Grades 7-12 | 3 | |
| MAJOR | EDUC 371 - (EPW) Literacy Strategies in Secondary School | | 3 |
| MAJOR | EDUC 359 - (D) Introduction to English Language Learning | | 3 |
| COGNATE | COGNATE ELECT - Techno. Context – Environmental Context | 3 | 3 |
| GE ELECT | PHIL 431 - (P) Philosophy of Science | 3 | |
| GE NSCI | PHYS 101 - (E) The Solar System – PHYS 102 - (E) Earth Science | 3 | 3 |
| GE HUMN | HUMN ELECT - Humanities Elective | 3 | |

| | | | |
|---|---|---|---|
| GE ELECT | ELECT - Free Elective | | 6 |
| | | **18** | **18** |
| **Fourth Year** | | | |
| MAJOR | EDUC 475 - Professional Seminar[3] | | 3 |
| MAJOR | EDUC 476 - Planning in Secondary Student Teaching[4] | | 2 |
| MAJOR | EDUC 477 - Instruction in Secondary Student Teaching | | 3 |
| MAJOR | EDUC 478 - Managing Classrooms in Secondary Student Teaching | | 2 |
| MAJOR | EDUC 479 - Professional Growth in Secondary Student Teaching | | 3 |
| MAJOR | EDUC 316 - Subject Methods: Mathematics/Science | 1 | |
| COGNATE | ELECT - Environmental Context | 3 | |
| COGNATE | CHEM 104 - (E) Science and Society | 3 | |
| GE HUMN | HUMN ELECT - Humanities Elective[5] | 3 | |
| GE ELECT | FREE ELECT - Free Electives | 3 | |
| GE PHIL | PHIL 306 - (P) Philosophy of Education | 3 | |
| | | **16** | **13** |
| | | | **Total: 128 Credits** |

[1]*This course must meet the FYOC and FYDT designations for Eloquentia Perfecta.*

[2] *The selection of a First Year Seminar is likely to fulfill requirements both for the First Year Seminar and a General Education Requirement. Thus, the First Year Seminar will not add to the total credits for the semester. Talk with your advisor if you have any questions.*

[3]*All undergraduate student teachers will be required to complete edTPA as part of the requirements for student teaching seminar.*

[4] *Students may complete student-teaching in the fall semester if the requirements for student-teaching are met at the beginning of the fall semester.*

[5] *Humanities Electives: Students must earn 6 credits in Literature or Foreign Language with no more than 3 credits in Art or Music.*

## Secondary Education (Latin) Curriculum (See footnote 6 below)

| | ***Department and Number - Descriptive Title of Course*** | ***Fall Cr.*** | ***Spr. Cr.*** |
|---|---|---|---|
| **First Year** | | | |
| GE S/BH | EDUC 142 - (D,S) Exceptional Lives | 3 | |
| COGNATE | LAT 211 - (CF) Intermediate Latin – LAT 212 - (CF) Intermediate Latin | 3 | 3 |
| GE WRTG | WRTG 107 - (FYW) Composition | 3 | |

| | | | |
|---|---|---|---|
| EP ELEC | EP ELEC - Eloquentia Perfecta[1] | | 3 |
| GE QUAN | MATH ELECT - Quant. Reasoning Course | 3 | |
| GE PHIL | PHIL 120 - Introduction to Philosophy | 3 | |
| GE T/RS | T/RS 121 - (P) Theology I: Introduction to the Bible | | 3 |
| GE S/BH | EDUC 223 - (EPW) Educational Psychology, GR 4-12 | | 3 |
| GE FSEM | First Year Seminar[2] | | |
| | | **15** | **12** |
| **Second Year** | | | |
| COGNATE | ELECT - Latin Electives | 6 | 6 |
| GE T/RS | T/RS 122 - (P) Theology II: Introduction to Christian Theology | | 3 |
| GE PHIL | PHIL 210 - Ethics | | 3 |
| GE HUMN | LIT ELECT-Literature Elective – HUMN ELECT-Humanities Elective | 3 | 3 |
| GE NSCI | NSCI - Natural Science Electives | 3 | 3 |
| MAJOR | EDUC 246 - Interdisciplinary Assessment, Grades 4-12 | 3 | |
| GE ELECT | ELECT - Statistics Elective | 3 | |
| | | **18** | **18** |
| **Third Year** | | | |
| MAJOR | EDUC 370 - Inclusionary Classroom Practices, Grades 4-12 | 3 | |
| MAJOR | EDUC 311 - Planning and Instruction, Grades 7-12 | 3 | |
| MAJOR | EDUC 371 - (EPW) Literacy Strategies in Secondary School | | 3 |
| MAJOR | EDUC 359 - (D) Introduction to English Language Learning | | 3 |
| COGNATE | ELECT - Latin Electives | 6 | 6 |
| COGNATE | ELECT - Related Electives | | 3 |
| GE HUMN | HUMN ELECT - Humanities Elective | | 3 |
| GE ELECT | SOC 234 - (S,D) Cultural Anthropology | 3 | |
| GE ELECT | ELECT - Open Elective | 3 | |
| | | **18** | **18** |
| **Fourth Year** | | | |

| | | | |
|---|---|---|---|
| MAJOR | EDUC 475 - Professional Seminar[3] | | 3 |
| MAJOR | EDUC 476 - Planning in Secondary Student Teaching[4] | | 2 |
| MAJOR | EDUC 477 - Instruction in Secondary Student Teaching | | 3 |
| MAJOR | EDUC 478 - Managing Classrooms in Secondary Student Teaching | | 2 |
| MAJOR | EDUC 479 - Professional Growth in Secondary Student Teaching | | 3 |
| MAJOR | EDUC 314 - Specific Subject Methods: World Languages | 3 | |
| COGNATE | ELECT - Latin Elective | 3 | |
| COGNATE | ELECT - Related Elective | 3 | |
| GE HUMN | HUMN - Humanities Electives[5] | 3 | |
| GE PHIL | PHIL 306 - (P) Philosophy of Education | 3 | |
| GE ELECT | ELECT - Latin Elective | 3 | |
| | | **18** | **13** |
| | | | **Total: 130 Credits** |

*[1]This course must meet the FYOC and FYDT designations for Eloquentia Perfecta.*

*[2] The selection of a First Year Seminar is likely to fulfill requirements both for the First Year Seminar and a General Education Requirement. Thus, the First Year Seminar will not add to the total credits for the semester. Talk with your advisor if you have any questions.*

*[3]All undergraduate student teachers will be required to complete edTPA as part of the requirements for student teaching seminar.*

*[4] Students may complete student-teaching in the fall semester if the requirements for student-teaching are met at the beginning of the fall semester.*

*[5] Humanities Electives: Students must earn 6 credits in Literature or Foreign Language with no more than 3 credits in Art or Music.*

*[6]Program results in a second major in Latin.*

## Secondary Education (Mathematics) Curriculum (See footnote 7 below)

| | ***Department and Number - Descriptive Title of Course*** | ***Fall Cr.*** | ***Spr. Cr.*** |
|---|---|---|---|
| **First Year** | | | |
| GE S/BH | EDUC 142 - (D,S) Exceptional Lives | 3 | |
| GE HUMN | LIT Elective - Humanities Elective | 3 | |
| COGNATE | MATH 114 - (Q) Calculus I | 4 | |
| COGNATE | MATH 221 - Calculus II | | 4 |
| GE WRTG | WRTG 107 - (FYW) Composition | 3 | |

| | | | |
|---|---|---|---|
| GE S/BH | EDUC 223 - (EPW) Educational Psychology, GR 4-12 | | 3 |
| EP ELEC | EP ELEC - Eloquentia Perfecta[1] | | 3 |
| GE PHIL | PHIL 120 - Introduction to Philosophy | 3 | |
| GE T/RS | T/RS 121 - (P) Theology I: Introduction to the Bible | | 3 |
| GE FSEM | First Year Seminar[2] | | |
| | | **16** | **13** |
| **Second Year** | | | |
| MAJOR | EDUC 246 - Interdisciplinary Assessment, Grades 4-12 | 3 | |
| COGNATE | MATH 222 - Calculus III – MATH 299 - (EPW) Introduction to Mathematical Proof | 4 | 4 |
| GE T/RS | T/RS 122 - (P) Theology II: Introduction to Christian Theology | | 3 |
| GE PHIL | PHIL 210 - Ethics | 3 | |
| GE HUMN | HUMN ELECT - Humanities Electives | 3 | |
| GE NSCI | PHYS 140/PHYS 140L - (E) Elements of Physics I – PHYS 141/PHYS 141L - (E) Elements of Physics II | 4 | 4 |
| GE ELECT | CMPS 134 - Computer Science I | | 3 |
| COGNATE | MATH 351 - Linear Algebra | | 3 |
| | | **17** | **17** |
| **Third Year** | | | |
| MAJOR | EDUC 370 - Inclusionary Classroom Practices, Grades 4-12 | 3 | |
| MAJOR | EDUC 311 - Planning and Instruction, Grades 7-12 | 3 | |
| MAJOR | EDUC 371 - (EPW) Literacy Strategies in Secondary School | | 3 |
| MAJOR | EDUC 359 - (D) Introduction to English Language Learning | | 3 |
| COGNATE | MATH 310 - Applied Probability and Mathematical Statistics | 4 | |
| COGNATE | MATH 325 - History and Philosophy of Mathematics or MATH 345 - Geometry | 3 | |
| COGNATE | MATH 446 - Real Analysis I or MATH 448 - Modern Algebra I | 3 | |
| COGNATE | MATH 447 - Real Analysis II or MATH 449 - Modern Algebra II | | 3 |
| COGNATE | MATH ELECT - Math Elective (Upper Division) | | 6 |
| GE HUMN | GE HUMN - Humanities Elective | | 3 |

| | | | |
|---|---|---|---|
| | | **16** | **18** |
| **Fourth Year** | | | |
| MAJOR | EDUC 475 - Professional Seminar[3] | | 3 |
| MAJOR | EDUC 476 - Planning in Secondary Student Teaching[4] | | 2 |
| MAJOR | EDUC 477 - Instruction in Secondary Student Teaching | | 3 |
| MAJOR | EDUC 478 - Managing Classrooms in Secondary Student Teaching | | 2 |
| MAJOR | EDUC 479 - Professional Growth in Secondary Student Teaching | | 3 |
| MAJOR | EDUC 316 - Subject Methods: Mathematics/Science | 1 | |
| COGNATE | MATH 446 - Real Analysis I or MATH 448 - Modern Algebra I[5] | 3 | |
| COGNATE | MATH ELECT - Math Elective (Upper Division) | 3 | |
| COGNATE | MATH 325 - History and Philosophy of Mathematics or MATH 345 - Geometry | 3 | |
| GE PHIL | PHIL 306 - (P) Philosophy of Education | 3 | |
| GE HUMN | HUMN ELECT - Humanities Elective[6] | 3 | |
| | | **16** | **13** |
| | | | **Total: 126 Credits** |

[1]*This course must meet FYOC and FYDT designations for Eloquentia Perfecta.*

[2] *The selection of a First Year Seminar is likely to fulfill requirements both for the First Year Seminar and a General Education Requirement. Thus, the First Year Seminar will not add to the total credits for the semester. Talk with your advisor if you have any questions.*

[3]*All undergraduate student teachers will be required to complete edTPA as part of the requirements for student teaching seminar.*

[4]*Students may complete student-teaching in the fall semester if the requirements for student-teaching are met at the beginning of the fall semester.*

[5]*Real Analysis I should be taken the fall of the junior year in odd-numbered years; Modern Algebra I should be taken in the fall of the junior year in even-numbered years.*

[6]*Humanities Electives: Students must earn 6 credits in Literature or Foreign Language with no more than 3 credits in Art or Music.*

[7]*Secondary Education/Mathematics will result in a second major in Mathematics.*

## Secondary Education (Modern Language) Curriculum (See footnote 1 and 9 below)

| | ***Department and Number - Descriptive Title of Course*** | ***Fall Cr.*** | ***Spr. Cr.*** |
|---|---|---|---|
| **First Year** | | | |
| GE S/BH | EDUC 142 - (D,S) Exceptional Lives | 3 | |
| COGNATE | MLANG 211-212 Intermediate Modern Language[1] | 3 | 3 |

| | | | |
|---|---|---|---|
| GE WRTG | WRTG 107 - (FYW) Composition | 3 | |
| EP ELEC | EP ELEC - Eloquentia Perfecta[2] | | 3 |
| GE HUMN | LIT ELECT - Literature Elective (English) | | 3 |
| GE QUAN | QUAN ELECT - Quant. Reasoning Elective | 3 | |
| GE PHIL-T/RS | T/RS 121 - (P) Theology I: Introduction to the Bible – PHIL 120 - Introduction to Philosophy | 3 | 3 |
| GE S/BH | EDUC 223 - (EPW) Educational Psychology, GR 4-12 | | 3 |
| GE FSEM | First Year Seminar[3] | | |
| | | **15** | **15** |
| **Second Year** | | | |
| MAJOR | EDUC 246 - Interdisciplinary Assessment, Grades 4-12 | 3 | |
| COGNATE | MLANG 311-312 - Advanced Comp./Conv. I-II[4] | 3 | 3 |
| COGNATE | COGNATE ELECT - Related Electives | 3 | 3 |
| GE PHIL | T/RS 122 - (P) Theology II: Introduction to Christian Theology – PHIL 210 - Ethics | 3 | 3 |
| GE HUMN | MLANG ELECT - Modern-Lang. Elective | | 3 |
| GE NSCI | NSCI ELECT - Natural Science Elective | 3 | 3 |
| GE ELECT | STATS ELECT - Statistics Elective | 3 | |
| | | **18** | **15** |
| **Third Year** | | | |
| MAJOR | EDUC 370 - Inclusionary Classroom Practices, Grades 4-12 | 3 | |
| MAJOR | EDUC 311 - Planning and Instruction, Grades 7-12 | 3 | |
| MAJOR | EDUC 371 - (EPW) Literacy Strategies in Secondary School | | 3 |
| COGNATE | MLANG 321-322 – Stylistics I–II[5] | 3 | 3 |
| COGNATE | COGNATE ELECT - Modern Language Electives | 3 | 9 |
| GE HUMN | ELECT - Related Electives | 3 | 3 |
| | | **15** | **18** |
| **Fourth Year** | | | |
| MAJOR | EDUC 475 - Professional Seminar[6] | | 3 |

| | | | |
|---|---|---|---|
| MAJOR | EDUC 476 - Planning in Secondary Student Teaching[7] | | 2 |
| MAJOR | EDUC 477 - Instruction in Secondary Student Teaching | | 3 |
| MAJOR | EDUC 478 - Managing Classrooms in Secondary Student Teaching | | 2 |
| MAJOR | EDUC 479 - Professional Growth in Secondary Student Teaching[1] | | 3 |
| MAJOR | EDUC 359 - (D) Introduction to English Language Learning | 3 | |
| MAJOR | EDUC 314 - Specific Subject Methods: World Languages[8] | 3 | |
| COGNATE | COGNATE ELECT - Modern Language Elective | 3 | |
| GE PHIL | PHIL 306 - (P) Philosophy of Education | 3 | |
| GE ELECT | FREE ELECT - Free Elective | 6 | |
| | | **18** | **13** |
| | | | **Total: 127 Credits** |

*[1]Spanish, French, German should be selected as a specialization within Modern Language (MLANG). Program results in a second major in the area of modern language chosen.*

*[2]This course must meet FYOC and FYDT designations for Eloquentia Perfecta.*

*[3] The selection of a First Year Seminar is likely to fulfill requirements both for the First Year Seminar and a General Education Requirement. Thus, the First Year Seminar will not add to the total credits for the semester. Talk with your advisor if you have any questions.*

*[4]Students who begin their major language at the 311 level will take 6 fewer credits in the major and 6 more credits in the cognate or free area. In their second year, they will choose advanced language electives.*

*[5]Students whose specialization within Modern Language is Spanish are required to take SPAN 320, and SPAN 321 and three of the following: SPAN 313, SPAN 314, SPAN 330 and/or SPAN 331. In Spanish, there is no Advanced Stylistics II.*

*[6] All undergraduate student teachers will be required to complete edTPA as part of the requirements for student teaching seminar.*

*[7] Students may complete student-teaching in the fall semester if the requirements for student-teaching are met at the beginning of the fall semester.*

*[8]Before enrolling in EDUC 314, students are required to pass a proficiency exam at the intermediate-high level.*

*[9]All Secondary Education MLANG Majors are strongly encouraged to study abroad for a period of at least one semester.*

## Secondary Education (Physics) Curriculum (See footnote 6 below)

| | ***Department and Number - Descriptive Title of Course*** | ***Fall Cr.*** | ***Spr. Cr.*** |
|---|---|---|---|
| **First Year** | | | |
| GE S/BH | EDUC 142 - (D,S) Exceptional Lives | 3 | |
| COGNATE | PHYS 140/PHYS 140L - (E) Elements of Physics I – PHYS 141/PHYS 141L - (E) Elements of Physics II | 4 | 4 |
| COGNATE | MATH 114 - (Q) Calculus I | 4 | |

| | | | |
|---|---|---|---|
| GE WRTG | WRTG 107 - (FYW) Composition | 3 | |
| EP ELECT | EP ELECT - Eloquentia Perfecta[1] | | 3 |
| GE QUAN | MATH 221 - Calculus II | | 4 |
| GE PHIL | PHIL 120 - Introduction to Philosophy | 3 | |
| GE S/BH | EDUC 223 - (EPW) Educational Psychology, GR 4-12 | | 3 |
| GE HUMN ELECT | LIT ELECT - Literature Elective | | 3 |
| GE FSEM | First Year Seminar[2] | | |
| | | **17** | **17** |
| **Second Year** | | | |
| COGNATE | MATH 222 - Calculus III | 4 | |
| COGNATE | PHYS 270/PHYS 270L - (EPW: Lab only) Elements of Modern Physics | 4 | |
| COGNATE | PHYS 102 - (E) Earth Science | | 3 |
| COGNATE | PHYS 352 - Statistical and Engineering Thermodynamics | | 3 |
| COGNATE | EE 241/EE 241L - (EPW) Circuit Analysis | | 4 |
| GE ELECT | MATH 341 - Differential Equations | | 4 |
| GE PHIL | PHIL 210 - Ethics | 3 | |
| GE T/RS | T/RS 121 - (P) Theology I: Introduction to the Bible | 3 | |
| GE T/RS | T/RS 122 - (P) Theology II: Introduction to Christian Theology | | 3 |
| MAJOR | EDUC 246 - Interdisciplinary Assessment, Grades 4-12 | 3 | |
| | | **17** | **17** |
| **Third Year** | | | |
| MAJOR | EDUC 370 - Inclusionary Classroom Practices, Grades 4-12 | 3 | |
| MAJOR | EDUC 311 - Planning and Instruction, Grades 7-12 | 3 | |
| MAJOR | EDUC 371 - (EPW) Literacy Strategies in Secondary School | | 3 |
| MAJOR | EDUC 359 - (D) Introduction to English Language Learning | | 3 |
| COGNATE | PHYS 447 - Electromagnetics I — PHYS 448 - Electromagnetics II/PHYS 448L | 3 | 4 |
| GE ELECT | PHYS 350 - Applied and Engineering Mathematics | | 3 |
| GE NSCI | BIOL 101 - (E) Introduction to Biological Science | 3 | |

| | | | |
|---|---|---|---|
| GE HUMN | HUMN ELECT - Humanities Elective | 3 | |
| GE ELECT | CHEM 100 - (E) Elements of Chemistry | 3 | |
| GE ELECT | PHYS 372 - Quantum Mechanics | | 3 |
| | | **18** | **16** |
| **Fourth Year** | | | |
| MAJOR | EDUC 475 - Professional Seminar[3] | | 3 |
| MAJOR | EDUC 476 - Planning in Secondary Student Teaching[4] | | 2 |
| MAJOR | EDUC 477 - Instruction in Secondary Student Teaching | | 3 |
| MAJOR | EDUC 478 - Managing Classrooms in Secondary Student Teaching | | 2 |
| MAJOR | EDUC 479 - Professional Growth in Secondary Student Teaching | | 3 |
| MAJOR | EDUC 316 - Subject Methods: Mathematics/Science | 1 | |
| COGNATE | PHYS 493 - Undergraduate Physics Research I/PHYS 494 - (EPW) Undergraduate Physics Research II | | 2 |
| COGNATE | ENGR 250 - Engineering Mechanics-Statics | 3 | |
| COGNATE | PHYS 371 - Advanced Mechanics | 3 | |
| GE HUMN ELECT | HUMN ELECT - Humanities Electives[5] | 6 | |
| GE PHIL | PHIL 306 - (P) Philosophy of Education | 3 | |
| | | **16** | **15** |
| | | | **Total: 133 Credits** |

[1]*This course must meet the FYOC and FYDT designations for Eloquentia Perfecta.*

[2] *The selection of a First Year Seminar is likely to fulfill requirements both for the First Year Seminar and a General Education Requirement. Thus, the First Year Seminar will not add to the total credits for the semester. Talk with your advisor if you have any questions.*

[3]*All undergraduate student teachers will be required to complete edTPA as part of the requirements for student teaching seminar.*

[4] *Students may complete student-teaching in the fall semester if the requirements for student-teaching are met at the beginning of the fall semester*

[5] *Humanities Electives: Students must earn 6 credits in Literature or Foreign Language with no more than 3 credits in Art or Music.*

[6] *Secondary Education/Physics Majors will complete a second major in Physics.*

## Educational Studies Minor

The Minor in Educational Studies is a six-course undergraduate program of study open to students of all majors. The minor allows students to study education both as a liberal arts discipline-furthering student interests in the foundations of education, child and adolescent development, and the science and art of teaching; as well as a professional resource, suited especially for careers in corporate training, human resources development, child advocacy and policy, and university research and teaching.

## Required Courses for the Minor in Educational Studies (18 credits)

| *Course Number and Title* | *Credits* |
|---|---|
| EDUC 142 - (D,S) Exceptional Lives | 3 |
| EDUC 144 - Foundations of American Education | 3 |
| EDUC 222 - (S,EPW) Educational Psychology, PreK-4 or EDUC 223 - (EPW) Educational Psychology, GR 4-12 | 3 |
| EDUC 313 - General Methods and Planning | 3 |
| EDUC 465 - Seminar in Educational Studies | 3 |
| EDUC Elective | 3 |
| | **18** |

# Health Administration and Human Resources

## Health Administration

## Faculty

Daniel J. West, Ph.D., *Chair*

Robert J. Spinelli, D.B.A., *Program Director*

Gunjan Bansal, M.H.A.

Michael M. Costello, J.D., M.B.A.

Rita A. DiLeo, D.Sc.

Hengameh Hosseini, Ph.D.

Margaret Koehler, M.B.A.

William F. Miller, Ph.D., M.H.A.

Terri Freeman Smith, Ph.D.

Steven J. Szydlowski, D.H.A.

John P. Wiercinski, M.H.A.

Kenneth J. Zula, Ph.D.

## Overview

The Health Administration major integrates courses from the field of health and business administration, and is designed to develop in students the values, knowledge and skills needed for management positions in a variety of fields. The curriculum is interdisciplinary, emphasizes knowledge of global health care issues, and includes a minor in business administration. Students are given a broad base of knowledge for securing entry-level positions with public and private agencies, organizations such as hospitals, insurance and managed care companies, pharmaceutical firms, community health and rehabilitation facilities. The curriculum also provides a theoretical foundation for future graduate-level education in various disciplines such as public health, health administration, health policy and planning, gerontology, law school and business administration. The major emphasizes applications to real-world experience by requiring a three-credit, 120-hour internship, with a second three-credit elective internship. Opportunities exist for students to identify with and actively participate in the Health Administration profession through an active student association affiliated with the American College of Healthcare Executives (ACHE). The program also offers a five-year, accelerated B.S./M.H.A. for qualified students.

## Competencies to Set You Apart

The BS Degree in Health Administration offers the key components to develop health care managers who can apply a comprehensive skill set that demonstrates a fluency in managing a healthcare system or organization. Our program uses the ACHE Healthcare Leadership Alliance (HLA) competency model. As a graduate, you will be an expert with a set of core competencies, covered in five critical domains:

- **Communication and Relationship Management:** Fine tune analysis, interpretation and communication skills to translate factual data, process, direction and research to decision makers.
- **Leadership**: Develop leadership skills to support the organization and its individuals with a deep understanding of decision making and outcomes in situations internal and external, high-level and granular.

- **Professionalism**: Engage in continued professional development including reflection and self-directed learning, and understand the impact of professional standards and codes of ethical behavior on the organization.
- **Knowledge of the Healthcare Environment**: Assess the interrelationships among access, quality, cost, resource allocation, accountability, and community while navigating administrative, functional and developmental responsibilities of the health care organization.
- **Business Skills and Knowledge**: Demonstrate critical thinking, analysis, problem solving, and financial management skills necessary to operate, manage projects, run a healthcare organization in today's economy and integrate information from various sources to make decisions and recommendations.

Requirements for graduation include a minimum 2.50 GPA in major courses, as well as a minimum grade of C or better in all cognate courses. Students whose GPA in major courses is below 2.50 or whose overall GPA is below 2.0 will not be allowed to register for the following courses: HADM 390, HADM 380, and HADM 441.

If a student's overall GPA drops below a 2.0, he or she is placed on academic probation. If satisfactory progress is not made toward removing probationary status, the student is subject to dismissal by the Dean in consultation with the student's Program Director.

A community based learning component is integrated into health administration courses. Graduate students will meet the community based learning requirement by completing major courses that have a community based learning component. The Health Administration program is a full undergraduate member of the Association of University Programs in Health Administration (AUPHA) in Washington, D.C.

Students are expected to adhere to the Academic Code of Honesty of the University of Scranton. Students who do not demonstrate satisfactory progress or do not comply with the Academic Code of Honesty of the University of Scranton will be at risk for immediate remediation, probation or dismissal from the HADM program.

## Course Information

Courses for **Health Administration** are listed under the prefix HADM. For more information on these courses, visit our Health Administration and Human Resources Department Courses page. For more information, on all courses offered, visit our Course Descriptions page. Students may be required to have background checks and other clearances for internships and are responsible for associated costs.

# Health Administration, BS

## Health Administration Curriculum

| | *Department and Number - Descriptive Title of Course* | *Fall Cr.* | *Spr. Cr.* |
|---|---|---|---|
| **First Year** | | | |
| MAJOR | HADM 111 - Introduction to Health Administration | 3 | |
| MAJOR | HADM 112 - Health Systems | | 3 |
| GE FSEM | First Year Seminar[2] | | |
| GE WRTG–SPCH | WRTG 107 - (FYW) Composition – COMM 100 - (FYOC) Public Speaking | 3 | 3 |
| GE PHIL–T/RS | PHIL 120 - Introduction to Philosophy – T/RS 121 - (P) Theology I: Introduction to the Bible | 3 | 3 |
| GE C/IL | C/IL 102/102L - (FYDT) Computing and Information Literacy | | 3 |
| GE NSCI | NSCI ELECT - Natural Science Elective | 3 | |

| | | | |
|---|---|---|---|
| GE QUAN | PSYC 210 - (Q) Statistics in the Behavioral Sciences | 3 | |
| GE S/BH | ECO 101 - (S) Current Economic Issues | | 3 |
| GE HUMN | HUMN ELECT - Humanities Elective | | 3 |
| | | **15** | **18** |
| **Second Year** | | | |
| MAJOR | HADM 293 - Research in Health Administration | | 3 |
| MAJOR | HADM 211 - (EPW) Health Administration | | 3 |
| MAJOR | HADM 212 - Health Administration Law[1] | 3 | |
| COGNATE | ACC 253 - Financial Accounting | 3 | |
| GE PHIL | PHIL 210 - Ethics – PHIL 212 - (P) Medical Ethics | 3 | 3 |
| GE T/RS | T/RS 122 - (P) Theology II: Introduction to Christian Theology | | 3 |
| COGNATE | ELECT - Electives | 3 | 3 |
| GE NSCI | NSCI ELECT - Natural Science Electives | 3 | |
| GE HUMN | HUMN ELECT - Humanities Elective | 3 | |
| QUAN | MATH 106 - (Q) Quantitative Methods I | | 3 |
| | | **18** | **18** |
| **Third Year** | | | |
| MAJOR | HADM 312 - Health Finance | 3 | |
| MAJOR | HADM ELECT- Health Administration Electives | 3 | 3 |
| MAJOR | HADM 390 - Career Seminar | 1 | |
| MAJOR | HADM 380 - Internship in Health Administration | | 3 |
| COGNATE | FIN 251 - Introduction to Finance | 3 | |
| COGNATE | MKT 351 - Introduction to Marketing | | 3 |
| COGNATE | MGT 351 - Principles of Management and Entrepreneurship I | 3 | |
| GE HUMN | HUMN ELECT - Humanities Electives | 3 | 3 |
| | | **16** | **12** |
| **Fourth Year** | | | |
| MAJOR | HADM 315 - (D) Cultural Diversity and Health Administration[1] | 3 | |

| | | | |
|---|---|---|---|
| MAJOR | HADM ELECT - Health Administration Elective | 3 | |
| MAJOR | HADM 441 - (EPW) Issues in Health Care Administration[1] | | 3 |
| COGNATE | ECO/IB 351 - (D) Environment of International Business | 3 | |
| COGNATE | OIM 471 - Business Information Management | | 3 |
| COGNATE | COGNATE ELECT - Cognate Elective | | 3 |
| GE S/BH | S/BH ELECT - Social/Behavioral Elective | 3 | |
| GE ELECT | FREE ELECT - Free Electives | 3 | 6 |
| | | **15** | **15** |
| | | | **Total: 127 Credits** |

[1]*Includes community based learning component.*

[2] *The selection of a First Year Seminar is likely to fulfill requirements both for the First Year Seminar and a General Education Requirement. Thus, the First Year Seminar will not add to the total credits for the semester. Talk with your advisor if you have any questions.*

# Health Administration, Long-Term Care Administration Concentration, BS

The HADM Concentration in Long-Term Care Administration prepares students for job opportunities in nursing homes, assisted living facilities, adult day care and work with chronically ill populations. Students complete a sequence of 40 credits of Health Administration, 21 credits of Business and 12 credits of Gerontology courses, as well as a 1000 hour HADM internship. Upon successful completion of the curriculum, students will have met the educational requirements of the Pennsylvania State Board of Licensure for Nursing Home Administrators and be eligible to take the state licensure examination for long-term care administrators. The HADM/LTCA track increases credits for the Health Administration degree to 134 credits. A 10-hour-per-semester service learning requirement is integrated into the HADM/LTCA course work.

The HADM/LTCA program is accredited by the National Association of Boards of Examiners of Long-Term Care Administrators (NAB) in Washington, D.C.

## Health Administration – Concentration in Long-Term Care Administration Curriculum

| | ***Department and Number - Descriptive Title of Course*** | ***Fall Cr*** | ***Spr. Cr*** |
|---|---|---|---|
| **First Year** | | | |
| MAJOR | HADM 111 - Introduction to Health Administration | 3 | |
| MAJOR | HADM 112 - Health Systems | | 3 |
| GE FSEM | First Year Seminar[2] | | |
| GE WRTG–SPCH | WRTG 107 - (FYW) Composition — COMM 100 - (FYOC) Public Speaking | 3 | 3 |

| | | | |
|---|---|---|---|
| GE PHIL–T/RS | PHIL 120 - Introduction to Philosophy — T/RS 121 - (P) Theology I: Introduction to the Bible | 3 | 3 |
| GE C/IL | C/IL 102/102L - (FYDT) Computing and Information Literacy | | 3 |
| GE NSCI | NSCI ELECT - Natural Science Elective | 3 | |
| GE QUAN | PSYC 210 - (Q) Statistics in the Behavioral Sciences | 3 | |
| GE S/BH | HADM 110 - Introduction to Gerontology | | 3 |
| COGNATE | GERO 216 - Aging and the Community | | 3 |
| | | **15** | **18** |
| **Second Year** | | | |
| MAJOR | HADM 293 - Research in Health Administration | | 3 |
| MAJOR | HADM 211 - (EPW) Health Administration | | 3 |
| MAJOR | HADM 212 - Health Administration Law[1] | 3 | |
| MAJOR | ELECT - Elective | 3 | |
| COGNATE | HADM 218 - Health and Aging | | 3 |
| GE PHIL - GE T/RS | PHIL 210 - Ethics — T/RS 122 - (P) Theology II: Introduction to Christian Theology | 3 | 3 |
| COGNATE | ACC 253 - Financial Accounting | 3 | |
| COGNATE | FIN 251 - Introduction to Finance | 3 | |
| GE NSCI | NSCI ELECT - Natural Science Elective | 3 | |
| COGNATE | ECO 101 - (S) Current Economic Issues | | 3 |
| GE COGNATE | GERO 232 - Aging and Death | | 3 |
| | | **18** | **18** |
| **Third Year** | | | |
| MAJOR | HADM 312 - Health Finance | 3 | |
| MAJOR | HADM 315 - (D) Cultural Diversity and Health Administration[1] — ELECT- Free Elective | 3 | 3 |
| MAJOR | HADM 390 - Career Seminar | 1 | |
| MAJOR | HADM 318 - Long-Term Care Administration | | 3 |
| COGNATE | MGT 351 - Principles of Management and Entrepreneurship I | 3 | |
| COGNATE | MKT 351 - Introduction to Marketing | | 3 |

| | | | |
|---|---|---|---|
| COGNATE | ECO/IB 351 - (D) Environment of International Business | 3 | |
| GE PHIL | PHIL 212 - (P) Medical Ethics | 3 | |
| GE HUMN | HUMN ELECT - Humanities Electives | | 3 |
| GE ELECT | FREE ELECT - Free Elective | | 3 |
| | | **16** | **15** |
| **Fourth Year** | | | |
| MAJOR | HADM 441 - (EPW) Issues in Health Care Administration[1] | | 3 |
| MAJOR | HADM 480 - Internship in Long-Term Care Administration | 6 | 6 |
| COGNATE | OIM 471 - Business Information Management | | 3 |
| GE HUMN | HUMN ELECT - Humanities Electives | 6 | 3 |
| GE ELECT | FREE ELECT - Free Electives | 3 | |
| | | **15** | **15** |
| | | | **Total: 130 Credits** |

[1]*Includes community based learning component.*

[2] *The selection of a First Year Seminar is likely to fulfill requirements both for the First Year Seminar and a General Education Requirement. Thus, the First Year Seminar will not add to the total credits for the semester. Talk with your advisor if you have any questions.*

## Health Administration Minor

The student must take a minimum of 18 HADM credits. Four courses are required:

- HADM 111 - Introduction to Health Administration,
- HADM 112 - Health Systems,
- HADM 211 - (EPW) Health Administration,
- HADM 312 - Health Finance.

For more information about the Health Administration and Human Resources department, visit its website.

## Health Administration Certificate

(24 credits)

A program for adults who seek to develop administrative skills in the field of health administration. Students who complete the Certificate in Health Administration and wish to continue toward the associate or B.S. degree in Health Administration must have attained a 2.5 G.P.A.

Gainful Employment Disclosure – Undergraduate Certificate in Health Administration 2019

## Required Courses

- HADM 111 - Introduction to Health Administration

- HADM 112 - Health Systems
- HADM 211 - (EPW) Health Administration
- HADM 312 - Health Finance
- HADM 332 - Health Information Technology
- HADM Electives (9 credits)

# Human Resources Studies

## Faculty

Daniel J. West, Ph.D., *Chair*

Kenneth J. Zula, Ph.D., *Program Director*

Gunjan Bansal, M.H.A.

Michael M. Costello, J.D., M.B.A.

Rita A. DiLeo, D.Sc.

Hengameh Hosseini, Ph.D.

Margaret Koehler, M.B.A.

William F. Miller, Ph.D., M.H.A.

Terri Freeman Smith, Ph.D.

Robert J. Spinelli, D.B.A.

Steven J. Szydlowski, D.H.A.

John P. Wiercinski, M.H.A.

## Overview

The Human Resources Studies major integrates knowledge from the human resources field, social and behavioral sciences, business, and the liberal arts. Human Resource professionals work within all industries and are concerned with recruiting, developing, and retaining a productive workplace. The changing nature of work, as influenced by social, economic, technological, and educational forces is explored both nationally and globally. The study of human resource theories and their practical applications in the workplace is an essential part of the program. The faculty is committed to providing the highest quality learning environment to prepare students academically and practically for employment in the human resources field. In addition, students in the HRS major are expected to actively develop their own knowledge, skills, attitudes, and competencies to prepare themselves for a career in human resources. To that end, students are encouraged to demonstrate academic excellence in all coursework, make meaningful service commitments to their communities, and develop an attitude toward life-long learning. Opportunities for students to identify with and actively participate in the HR profession, such as membership in the student Chapter of the Society for Human Resource Management, are hallmarks of the program. Students may be required to have background checks and other clearances for internships and are responsible for associated costs.

Requirements for graduation include a minimum GPA of 2.50 within the Major. A minimum grade of 2.00 (C) must be attained in every HRS Major Core and Cognate course. Students whose GPA within the Major is below 2.50 or whose overall GPA is below 2.0 will not be allowed to register for the following courses: HRS 390 Human Resources Career Seminar, HRS 480 Human Resources Internship, and HRS 490 Human Resources Leadership Seminar.

If a student's overall GPA drops below a 2.0, he or she is placed on academic probation. If satisfactory progress is not made toward removing probationary status, the student is subject to dismissal by the Dean in consultation with the student's Program Director.

Students are expected to adhere to the professional code of ethics bound by the Society for Human Resource Management http://www.shrm.org/about/Pages/code-of-ethics.aspx. Students are also expected to adhere to the Academic Code of Honesty of the University of Scranton. Students who do not demonstrate satisfactory progress or do not comply with the *SHRM Code of Ethics* or the Academic Code of Honesty of the University of Scranton will be at risk for immediate remediation, probation or dismissal from the HRS program.

## Course Information

Courses for **Human Resources** are listed under the prefix HRS. For more information on these courses, visit our Health Administration and Human Resources Department Courses page. For more information on all courses offered, visit our Course Descriptions page. Students may be required to have background checks and other clearances for internships and are responsible

for associated costs.

# Human Resources Studies, BS

## *Bachelor of Science Degree*

- 127 credits with 37 credits from HRS major courses
- Required Business minor
- Required portfolio documenting specific student outcomes
- Required internship to gain practical work experience
- National and global focus – study abroad is encouraged
- Required 120 hour community based learning component
- Accelerated B.S./M.S. program is available for qualified students

## Human Resources Studies Curriculum

| | *Department and Number - Descriptive Title of Course* | *Fall Cr.* | *Spr. Cr.* |
|---|---|---|---|
| **First Year** | | | |
| MAJOR | HRS 111 - (S) Macro Human Resources | 3 | |
| MAJOR | HRS 112 - Micro Human Resources | | 3 |
| GE S/BH | PSYC 110 - (S) Fundamentals of Psychology | 3 | |
| GE FSEM | First Year Seminar[2] | | |
| GE PHIL–T/RS | PHIL 120 - Introduction to Philosophy – T/RS 121 - (P) Theology I: Introduction to the Bible | 3 | 3 |
| GE SPCH | COMM 100 - (FYOC) Public Speaking | | 3 |
| GE WRTG | WRTG 107 - (FYW) Composition | | 3 |
| GE C/IL | C/IL 102/102L - (FYDT) Computing and Information Literacy | 3 | |
| GE NSCI | NSCI ELECT - Natural Science Elective | 3 | |
| QE QUAN | PSYC 210 - (Q) Statistics in the Behavioral Sciences | | 3 |
| | | **15** | **15** |
| **Second Year** | | | |
| MAJOR | HRS 251 - (EPW) Performance Appraisal[1] | | 3 |
| MAJOR | HRS 252 - (EPW) Workforce Education and Training[1] | 3 | |
| MAJOR | HRS 293 - Research Applications in Human Resources | | 3 |

| | | | |
|---|---|---|---|
| COGNATE | ACC 253 - Financial Accounting | 3 | |
| COGNATE | PSYC 335 - Psychological Testing | 3 | |
| GE S/BH | ECO 101 - (S) Current Economic Issues | 3 | |
| GE PHIL–T/RS | PHIL 210 - Ethics – T/RS 122 - (P) Theology II: Introduction to Christian Theology | 3 | 3 |
| GE NSCI | NSCI ELECT - Natural Science Elective | | 3 |
| GE HUMN | HUMN ELECT - Humanities Elective | | 3 |
| GE QUAN | MATH 106 - (Q) Quantitative Methods I | | 3 |
| | | **15** | **18** |
| **Third Year** | | | |
| MAJOR | HRS 340 - Compensation and Benefits | | 3 |
| MAJOR | HRS 351 - (D) Recruitment, Selection, and Staffing[1] | 3 | |
| MAJOR | HRS 353 - Human Resources Information Systems | 3 | |
| MAJOR | HRS 390 - Human Resources Career Seminar | | 1 |
| MAJOR | HRS ELECT - HRS Elective | 3 | |
| COGNATE | MGT 351 - Principles of Management and Entrepreneurship I | | 3 |
| COGNATE | FIN 251 - Introduction to Finance | | 3 |
| COGNATE | ECO/IB 351 - (D) Environment of International Business | 3 | |
| COGNATE | MKT 351 - Introduction to Marketing | | 3 |
| COGNATE | COGNATE ELECT - Cognate Elective | 3 | |
| GE HUMN | HUMN ELECT - Humanities Elective | 3 | |
| GE PHIL-T/RS | PHIL ELECT- Philosophy Elective –T/RS ELECT- T/RS Elective | | 3 |
| | | **18** | **16** |
| **Fourth Year** | | | |
| MAJOR | HRS 480 - Human Resources Internship | 3 | |
| MAJOR | HRS 490 - Human Resources Leadership Seminar[1] | | 3 |
| MAJOR | HRS ELECT - HRS Elective | 3 | |
| COGNATE | OIM 471 - Business Information Management | 3 | |
| COGNATE | COGNATE ELECT - Cognate Elective | 3 | |

| | | | |
|---|---|---|---|
| GE HUMN | HUMN ELECT - Humanities Electives | 3 | 3 |
| GE ELECT | FREE ELECT - Free Electives | | 9 |
| | | **15** | **15** |
| | | | **Total: 127 Credits** |

[1]*Includes community based learning component*

[2] *The selection of a First Year Seminar is likely to fulfill requirements both for the First Year Seminar and a General Education Requirement. Thus, the First Year Seminar will not add to the total credits for the semester. Talk with your advisor if you have any questions.*

## Human Resources Studies Minor

The student must take a minimum of 18 credits. Five courses are required:

HRS 111 - (S) Macro Human Resources,

HRS 112 - Micro Human Resources,

HRS 251 - (EPW) Performance Appraisal,

HRS 252 - (EPW) Workforce Education and Training,

HRS 340 - Compensation and Benefits,

plus one HRS elective.

# Human Resources Studies, AS

## Associate in Science: Human Resources Studies Curriculum

| | ***Department and Number Descriptive Title of Course*** | ***Credits*** |
|---|---|---|
| **General Education** | | |
| GE SPCH–WRTG | COMM 100 - Public Speaking–WRTG 107 - Composition | 6 |
| GE C/IL | C/IL 102/102L - (FYDT) Computing and Information Literacy | 3 |
| GE HUMN | HUMN ELECT – Humanities Electives | 9 |
| GE PHIL–T/RS | PHIL 120 - Introduction to Philosophy – T/RS 121 - (P) Theology I: Introduction to the Bible | 6 |
| GE PHIL or T/RS | T/RS 122 - (P) Theology II: Introduction to Christian Theology or PHIL 210 - Ethics | 3 |
| GE ELECT | FREE ELECT – Free Elective | 3 |
| | | |
| **Major/Cognate** | | |
| MAJOR | HRS 111 - (S) Macro Human Resources | 3 |

| | | |
|---|---|---|
| MAJOR | HRS 112 - Micro Human Resources | 3 |
| MAJOR | HRS 251 - (EPW) Performance Appraisal | 3 |
| MAJOR | HRS 252 - (EPW) Workforce Education and Training | 3 |
| MAJOR | HRS 340 - Compensation and Benefits | 3 |
| MAJOR | HRS 351 - (D) Recruitment, Selection, and Staffing | 3 |
| MAJOR | HRS ELECT- HRS Elective | 3 |
| COGNATE | MGT 351 - Principles of Management and Entrepreneurship I | 3 |
| COGNATE | ELECT – Cognate Electives[1] | 6 |
| | **Total: 60 Credits** | |

[1]*May be any course that satisfies the cognate requirement for the B.S. in Human Resources Studies.*

***Note:*** *Students who complete the A.S. in Human Resources Studies and wish to continue toward the B.S. in Human Resources Studies must have attained a 2.5 G.P.A. in the major.*

## Human Resources Studies Certificate

(24 credits)

A program for adults who seek to develop administrative skills in the field of human resources. Students who complete the Certificate in Human Resources and wish to continue toward the associate or B.S. degree in Human Resources must have attained a 2.5 G.P.A.

## Required Courses

- HRS 111 - (S) Macro Human Resources
- HRS 112 - Micro Human Resources
- HRS 251 - (EPW) Performance Appraisal
- HRS 252 - (EPW) Workforce Education and Training
- HRS 340 - Compensation and Benefits
- HRS 351 - (D) Recruitment, Selection, and Staffing
- MGT 351 - Principles of Management and Entrepreneurship I
- HRS Elective

# Health and Human Performance

## Faculty

Paul T. Cutrufello, Ph.D., ATC, CSCS, *Chair and Program Director of Kinesiology*

Debra L. Fetherman, Ph.D., MCHES, ACSM EP-C, *Program Director of Health Promotion*

Hope Baylow, D.A.

Joan A. Cebrick Grossman, Ph.D., RD

Emily Gerstle, Ph.D

Michael J. Landram, Ph.D.

Joseph K. Pellegrino, Ph.D., CSCS

Andrew C. Venezia, Ph.D.

## Overview

The Department of Health and Human Performance consists of four areas: a major in Kinesiology, a major in Health Promotion, a concentration in Coaching, and a concentration in Nutrition Studies.

## Kinesiology

Kinesiology is the study of human movement as related to exercise and physical activity from an applied, primarily life science perspective. It is dedicated to promoting and integrating scientific research and education on the effects and benefits of exercise, and to the delivery of physical-activity programs that prevent disease, facilitate rehabilitation, promote health, and enhance human performance. Kinesiology is part of the field of Sports Medicine, which also includes clinical areas of study. The scientific aspects of Sports Medicine include exercise physiology, nutrition, biochemistry of exercise, and biomechanics. Testing of lactic acid metabolism, analysis of muscle fatigue, research on muscle hypertrophy and bone density, measurement of body composition, and benefits of exercise in cardiovascular disease, diabetes, osteoporosis and weight control are a few of the many contributions made by exercise scientists to Sports Medicine.

Few academic program majors offer such diverse opportunities after graduation in Kinesiology. The academically rigorous curriculum prepares graduates with knowledge and experience for employment opportunities in a variety of settings. Careers in applied health areas, include corporate, community and hospital-based wellness programs, cardiopulmonary rehabilitation, and research centers investigating the benefits of exercise in chronic disease states. Becoming a strength and conditioning specialist for a sports team or training center is also a career option. The program is also designed in order to provide students the opportunity to take prerequisite courses for graduate programs in Physical Therapy, Physician's Assistant, Athletic Training and other allied health professions, including medical, dental, podiatry and optometry school.

Students should make their career intentions known early in their program of study so that they may be guided appropriately and utilize their electives in order to achieve their academic goals. It is the student's responsibility to be aware of the specific prerequisites required by their graduate school(s) of interest as prerequisites may differ between universities offering the same program. While the Doctor of Physical Therapy program does not offer an accelerated option at this time, students are encouraged to work with their academic advisor if they are interested in graduating in less than four years.

In addition to the advising provided by PCPS Academic Advising and the Department of Health and Human Performance, students interested in attending medical school should participate actively in the Health Professions Organization and seek advising from Dr. Patrick Orr, Director of Medical School Placement (570-941-7901). Students interested in completing the prerequisites for a Physician's Assistant program should seek advising from Father Timothy Cadigan, Ph.D. (570-941-4348). Although not required, completion of the program provides students with the ability to take different certification exams offered by several professional organizations including the American College of Sports Medicine and the National Strength and Conditioning Association.

All KNES students must submit proof of First-Aid and CPR certification prior to completion of the Kinesiology program. Copies of the certifications must be submitted to the Department of Health and Human Performance office (ELH 710) no later than the midpoint of the student's second to final semester prior to graduation. Minimum requirements include Adult, Child, and Infant CPR with AED and Basic First-Aid. However, many graduate programs require advanced First-Aid and/or CPR certification, therefore, students applying to graduate programs are strongly advised to consult with those programs in order to identify the certifications suitable to meet their goals. For instance, some graduate programs may only accept certifications if granted by the American Red Cross or the American Heart Association.

Recommended certifications include the following: CPR certification - American Heart Association-Health Care Provider, American Red Cross-Professional Rescuer, or Basic Life Support (BLS) for Healthcare Providers from the American Red Cross; First-Aid Certification - American Heart Association or American Red Cross.

Graduating Kinesiology majors must possess a minimum overall grade point average of 2.75 and a grade point average of 2.75 or higher within the major. All major courses (KNES) and cognate courses must be completed with a minimum grade of "C." Students may progress and take any course within the KNES major provided the pre-requisite course(s) for that course have been completed with a minimum grade of "C."

## Course Information

Major courses for Kinesiology are listed under the prefixes KNES and NUTR. For more information on these and all courses offered, visit our Course Descriptions page.

# Kinesiology, BS

## Kinesiology Curriculum

| | *Department and Number - Descriptive Title of Course* | *Fall Cr.* | *Spr. Cr.* |
|---|---|---|---|
| **First Year** | | | |
| GE PHIL | PHIL 120 - Introduction to Philosophy | 3 | |
| COGNATE | BIOL 110 -111 - (E) Human Anatomy and Physiology and BIOL 110 - 111 Labs[1] | 4 | 4 |
| GE WRTG | WRTG 107 - (FYW) Composition | 3 | |
| GE HUMN | GE HUMN ELECT - GE Humanities Elective | 3 | |
| GE QUAN | MATH 109 - (Q) Pre-Calculus Mathematics OR MATH 114 - (Q) Calculus I | | 4 |
| GE EP | KNES 110 - (FYDT,FYOC) Introduction to Kinesiology | 3 | |
| MAJOR | NUTR 110 - (E) Introduction to Nutrition | | 3 |
| MAJOR | KNES 210 - Sport and Exercise Physiology | | 3 |
| GE FSEM | First Year Seminar[2] (Fall) | | |
| | | **16** | **14** |
| **Second Year** | | | |
| GE NSCI | CHEM 112-113 - (E) General and Analytical Chemistry /CHEM 112L-113L | 4.5 | 4.5 |
| MAJOR | KNES 229 - Applied Anatomy and Kinesiology | 3 | |
| MAJOR | KNES 375 Exercise Testing/Programming for Health and Performance** | 3 | |
| COGATE | PSYC 110 - (S) Fundamentals of Psychology | | 3 |
| GE HUMN | HUMN ELECT - Humanities Elective | 3 | |
| S/BH ELECT | S/BH ELECT - Social and Behavioral Elective | | 3 |
| GE T/RS | T/RS 121 - (P) Theology I: Introduction to the Bible — T/RS 122 - (P) Theology II: Introduction to Christian Theology | 3 | 3 |
| GE PHIL | PHIL 210 Ethics | | 3 |
| | | **16.5** | **16.5** |
| **Third Year** | | | |
| COGNATE | PHYS 120/PHYS 120L - (E) General Physics I | 4 | |
| ELECT | FREE ELECT - Free Electives[3] | 3 | 3 |
| MAJOR | KNES 448 (EPW) Research Methods in Exercise Science | 3 | |

| | | | |
|---|---|---|---|
| COGNATE | EDUC 120 (Q) Applied Statistics, PSYC 210 (Q) Statistics in the Behavioral Sciences, OR MATH 204 (Q) Introduction to Statistics | 3 | |
| MAJOR | KNES 313 - Biomechanics of Human Movement | | 3 |
| MAJOR | KNES 360 - Essentials of Strength Training and Conditioning** | | 3 |
| COGNATE | COGNATE ELECT - Cognate Elective[3] | | 3 |
| MAJOR | KNES 380 - Internship in Kinesiology | | 1-3 |
| GE ELECT | FREE ELECT - Free Elective[3] | 3 | |
| | | **16** | **13-15** |
| **Fourth Year** | | | |
| MAJOR | KNES 440 - (EPW) Advanced Physiology of Sport and Exercise** | 3 | |
| MAJOR | KNES 442 - Clinical Exercise Physiology | | 3 |
| GE S/BH | S/BH ELECT - Social Behavioral Elective | | 3 |
| MAJOR | MAJOR ELECT - Major Electives | 3 | 3 |
| GE PHIL or T/RS | PHIL ELECT - Philosophy Elective or T/RS ELECT - Theology Elective | 3 | |
| GE HUMN (D) | HUMN ELECT (D) - Humanities Electives | 3 | 3 |
| GE ELECT | FREE ELECT - Free Electives[3] | 3 | 1 |
| | | **15** | **13** |
| | | | **TOTAL: 120 - 122 Credits** |

[1]In addition to BIOL 110 -111 with Labs, students may also wish to consider BIOL 141 - BIOL 142 with Labs as these courses may be required for some graduate programs in the allied health professions.

[2]*The selection of a First Year Seminar may fulfill requirements both for the First Year Seminar and a General Education Requirement. Thus, the First Year Seminar will not add to the total credits for the semester. Talk with your advisor if you have any questions.*

[3]*Students with a guaranteed seat in the DPT should consider an advanced PSYC course (PSYC 225 or PSYC 238), BIOL 245 with lab, and PHYS 121/PHYS 121L which are prerequisite courses for the DPT program.*

** Includes a Community-Based Learning Project, coordinated via the department and faculty mentors.

## Required Courses Within the Major (31 credits)

- KNES 110 - (FYDT,FYOC) Introduction to Kinesiology
- KNES 210 - Sport and Exercise Physiology
- KNES 229 - Applied Anatomy and Kinesiology
- KNES 313 - Biomechanics of Human Movement
- KNES 360 - Essentials of Strength Training and Conditioning
- KNES 375 - Exercise Testing/Programming for Health and Performance
- KNES 380 - Internship in Kinesiology
- KNES 440 - (EPW) Advanced Physiology of Sport and Exercise

- KNES 442 - Clinical Exercise Physiology
- KNES 448 - (EPW) Research Methods in Exercise Science
- NUTR 110 - (E) Introduction to Nutrition

## KNES Major Electives (6 credits)

- COA 208 - Conditioning and Training for Sports
- HPRO 210 - (S) Introduction to Health Promotion and Disease Prevention
- HPRO 310 - (EPW, S) Behavior Theory in Health Promotion and Practice
- KNES 212 - Nutrition in Exercise and Sport
- KNES 240 - Prevention and Care of Sports Injuries
- KNES 412 - Current Topics in Exercise Science and Sports Medicine

## Required Cognate Courses (31 credits)

- BIOL 110/110L - (E) Human Anatomy and Physiology
- BIOL 111/111L - (E) Human Anatomy and Physiology
- CHEM 112 - (E) General and Analytical Chemistry/CHEM 112L
- CHEM 113 - (E) General and Analytical Chemistry/CHEM113L
- MATH 109 - (Q) Pre-Calculus Mathematics or MATH 114 - (Q) Calculus I
- EDUC 120 - (Q) Applied Statistics, PSYC 210 - (Q) Statistics in the Behavioral Sciences or MATH 204 - (Q) Introduction to Statistics
- PHYS 120/PHYS 120L - (E) General Physics I
- PSYC 110 - (S) Fundamentals of Psychology

## GE Requirements (33 credits)

- HUMN ELECT (C) - Humanities Electives CH,L,CF,CA - 12 credits
- GE ELECT (D) - Cultural Diversity Electives - 6 credits
- S/BH ELECT - Social Behavioral Electives - 6 credits (PSYC 110 fulfills 3 cr.)
- PHIL 120 - Introduction to Philosophy - 3 credits
- PHIL 210 - Ethics - 3 credits
- WRTG 107 - (FYW) Composition - 3 credits
- T/RS 121 - (P) Theology I: Introduction to the Bible - 3 credits
- T/RS 122 - (P) Theology II: Introduction to Christian Theology - 3 credits
- T/RS or PHIL ELECT - Theology or Philosophy Elective - 3 credits
- First Year Seminar

## Cognate Elective (3 credits)

- BIOL 141 - (E) (FYOC, FYDT Lab only) General Biology

- BIOL 142 - (E) (FYOC, FYDT Lab only) General Biology
- BIOL 245 - (EPW: lab only) General Physiology (S)
- BIOL 241 - Comparative Vertebrate Anatomy (S)
- CHEM 232 - (E) Organic Chemistry/CHEM 232L or CHEM 233 - (E) Organic Chemistry/CHEM 233L
- CHEM 350 - General Biochemistry I
- PHYS 121/PHYS 121L - (E) General Physics II
- PSYC 238 - Exercise and Sport Psychology
- PSYC 225 - (S) Abnormal Psychology
- NUTR 350 - Nutrition through the Life Cycle

## Free Electives (16 credits)

## Total 120 credits

## Coaching Concentration

The 15-credit Coaching Concentration is based on the American Sport Education Program (ASEP) and will help meet the needs of those who wish to coach and work more effectively with young athletes from youth through interscholastic sports.

## Coaching Concentration Curriculum

## Required Courses

- COA 160 - Coaching Principles
- COA 202 - Sports Administration
- COA 203 - Sport First Aid
- COA 205 - Teaching Sports Skills
- COA 208 - Conditioning and Training for Sports

## Electives (choose one)

- PSYC 225 - (S) Abnormal Psychology
- PSYC 228 - Health Psychology
- PSYC 238 - Exercise and Sport Psychology
- NUTR 110 - (E) Introduction to Nutrition
- CHS 111 - (S) Introduction to Human Adjustment
- HRS 351 - (D) Recruitment, Selection, and Staffing
- COMM 214 - Small Group Communication
- COMM 228 - (D) Intercultural Communication
- COMM 229 - (D) Gender and Communication
- COMM 317 - Digital Audio and Video Production

- COMM 319 - Sports Writing

## Nutrition Studies Concentration

The concentration in Nutrition Studies is designed to encourage critical thinking, engage students in dialogue, and increase self-awareness of their own nutritional status. It is designed to increase the knowledge base of the depth and implications of nutritional problems and their effects on chronic illnesses. Students in health-related fields such as Kinesiology, Nursing, Physical Therapy, Occupational Therapy and Health Promotion, as well as students in elementary and secondary education where basic nutrition is being implemented, will benefit from this course concentration.

## Required Courses

### *Mandatory:*

- NUTR 350 - Nutrition through the Life Cycle

This advanced-level course makes note of particular dietary needs and requirements as a function of the aging process. The areas addressed include levels of nutrient needs beginning with preconception through the entire life cycle.

## Plus one of the following:

- NUTR 110 - (E) Introduction to Nutrition
- NUTR 220 - Nutrition for the Health Care Professions
- BIOL 255 - Animal Nutrition and Metabolism (S)

## Supplemental Courses (choose three)

- BIOL 110 -111 - (E) Human Anatomy and Physiology or
- BIOL 210 - Introductory Medical Microbiology or
- BIOL 245 - (EPW: lab only) General Physiology (S) or
- BIOL 250 - Microbiology (MC) or
- BIOL 348 - Functional Neuroanatomy (S) or
- BIOL 446 - Cardiovascular Physiology (S)
- CHEM 110-111 - (E) Introductory Chemistry
- CHEM 112-113 - (E) General and Analytical Chemistry
- CHEM 232 - (E) Organic Chemistry
- KNES 212 - Nutrition in Exercise and Sport
- KNES 229 - Applied Anatomy and Kinesiology
- KNES 435 - (D) Exercise, Nutrition and Women's Health
- NURS 111 - (D) Women’s Health

# Health Promotion

## Faculty

Paul T. Cutrufello, Ph.D., LAT, ATC, CSCS, Department Chair and Program Director of Kinesiology

Debra L. Fetherman, Ph.D., MCHES®, ACSM EP-C, Program Director of Health Promotion

Hope Baylow, D.A.

Emily Gerstle, Ph.D.

Joan A. Cebrick Grossman, Ph.D., M.S., RDN

Michael Landrum, Ph.D.

Andrew C. Venezia, Ph.D.

## Overview

Health promotion professionals are vital to our nation's health. Health promotion is the process of enabling people to increase control over, and to improve, their health. Health promoters are professionals who are dedicated to promoting individual, group, and population-based health through developing behavior change strategies which influence educational, political, environmental, regulatory, or organizational factors. By focusing on the social determinants of health, health educators consider the conditions in which people are born, grow, live, work and age. These conditions shaped by the distribution of money, power and resources at global, national and local levels influence individual and population health.

Health promotion professionals use specific skills and knowledge to complement and support other healthcare providers, policy makers, and other professionals who are devoted to improving human health. Health promoters work in a variety of settings including business/industry, hospitals, clinics, health plans, public health departments at all levels of government, nonprofit and volunteer organizations, schools and universities.

Health promoters specialize in the use of behavior change and communication strategies to promote individual and community health. They also assess individual and population health needs as well as design, implement and evaluate the impact of health interventions on individuals and communities. Health educators/promoters advocate for and implement changes in health policies, procedures and services. They also may work as a health and wellness coach to assist clients in establishing and reaching their health and wellness goals.

The Health Promotion (HPRO) major is rooted in the Jesuit liberal arts tradition. Curricula includes a unique blend of behavioral, social, and multidisciplinary courses. Students can utilize cognate, general and free electives in a concentrated area to pursue a concentration or minor in an area of interest (i.e., Counseling and Human Services, Health Administration, Human Development, Nutrition, Psychology, Spanish and Communications). Electives can also be used in preparation for graduate health professional programs in Public Health, Occupational Therapy, Nursing, Speech Therapy, Social Work, Nutrition, and Physician Assistant.

Students will be educated to embody the spirit of "men and women for others," and encouraged to address issues of social justice and sustainability. Students will develop creative and interpersonal skills to be adept writers, good listeners and speakers. Emphasis will be placed on building skills to work with diverse populations by learning about cultural differences and health disparities.

Students will be required to complete an internship and community-based learning projects in a variety of settings. Students are required to submit a Pennsylvania Child Abuse History Clearance, a Pennsylvania State Police Criminal Record Check, and immunization record. Students whose primary residence is out of state may also be required to submit an FBI background check. Copies of these clearances and immunization records must be maintained to meet internship and community-based learning requirements. Graduating Health Promotion majors must possess a minimum overall grade point average of 2.5 and a grade point average of 2.5 or higher within the major.

Students will earn a bachelor's degree which is generally a minimum requirement for entry-level health promotion professionals. Some entry-level positions may require or prefer to hire those who hold certifications in the field. The Certified Health Education Specialist (CHES®) designation is offered by the National Commission of Health Education Credentialing. Students may qualify to take the CHES® certification exam after earning their degree in health promotion. Students may also qualify for other certifications through Wellcoaches® such as the Certified Health and Wellness Coach and the American College of Sports Medicine (ACSM) and National Physical Activity Society (NPAS) specialty credential as a Physical Activity in Public Health Specialist.

## Course Information

Courses for Health Promotion are listed under the prefixes HPRO. For more information on these and all courses offered, visit our Course Descriptions page.

# Health Promotion, BS

## Health Promotion Curriculum

| | *Department and Number - Descriptive Title of Course* | *Fall Cr.* | *Spr. Cr.* |
|---|---|---|---|
| **First Year** | | | |
| MAJOR | CHS 112 - Human Services Systems or HADM 112 - Health Systems | | 3 |
| COGNATE | BIOL 110 -111 - (E) Human Anatomy and Physiology | 4 | 4 |
| COGNATE ELECT | COGNATE ELECTIVES - Cognate Electives | 3-4.5 | 3-4.5 |
| COGNATE ELECT | COGNATE ELECTIVE - Cognate Elective | 3 | |
| GE S/BH | CHS 111 - (S) Introduction to Human Adjustment or PSYC 110 - (S) Fundamentals of Psychology | 3 | |
| GE EP | EDUC 102 - (FYOC, FYDT) Educational Skills in a Global Society | | 3 |
| GE WRTG | WRTG 107 - (FYW) Composition | | 3 |
| GE PHIL | PHIL 120 - Introduction to Philosophy | 3 | |
| GE FSEM | First Year Seminar[2] | | |
| | | **16-17.5** | **16-17.5** |
| **Second Year** | | | |
| MAJOR | HPRO 210 - (S) Introduction to Health Promotion and Disease Prevention[1] | 3 | |
| MAJOR | HPRO 230 - (D,S) Multicultural Health | | 3 |
| COGNATE | NUTR 110 - (E) Introduction to Nutrition or NUTR 220 - Nutrition for the Health Care Professions | 3 | |
| COGNATE | COMM 235 - Introduction to Social Media Strategies | | 3 |
| GE PHIL/T/RS | PHIL 210 - Ethics – T/RS 121 - (P) Theology I: Introduction to the Bible | 3 | 3 |
| GE QUAN | QUAN ELECT - Quantitative Elective | 3 | |
| GE FREE | FREE ELECT - Free Elective | | 3 |
| GE HUMN | HUMN ELECT - Humanities Electives | 3 | 3 |
| | | **15** | **15** |
| **Third Year** | | | |
| MAJOR | HPRO 300 - Career Seminar in Health Promotion | | 1 |
| MAJOR | HPRO 310 - (EPW, S) Behavior Theory in Health Promotion and Practice | 3 | |

| | | | |
|---|---|---|---|
| MAJOR | HPRO 320 - (EPW) Planning, Implementing and Evaluating Health Promotion Programs[1] | | 3 |
| MAJOR | HPRO 330 - (EPW) Research Methods in Health Promotion | 3 | |
| MAJOR | HPRO 340 - Advocacy and Health Communication | | 3 |
| COGNATE | CHS 335 - Administration in Human Services | 3 | |
| COGNATE ELEC | COGNATE ELEC - Cognate Electives | 3 | 3 |
| GE T/RS | T/RS 122 - (P) Theology II: Introduction to Christian Theology | | 3 |
| GE S/BH | S/BH ELEC - Social/Behavioral Elective | | 3 |
| GE/HUMN | HUMN ELEC - Humanities Elective | 3 | |
| | | **15** | **16** |
| **Fourth Year** | | | |
| MAJOR | HPRO 400 - (S) Health and Wellness Coaching[1] | 3 | |
| MAJOR | HPRO 480 - Internship in Health Education | | 3 |
| MAJOR | HPRO 413 - Worksite Health Promotion | | 3 |
| GE HUMN ELECT | HUMN ELECT - Humanities Elective | | 3 |
| GE PHIL-T/RS | PHIL 316 - (P) American Perspectives on Health-Care Ethics or T/RS 227 - (P) Biomedical Ethics or T/RS 235 - (P) The Theology of Birth and Death | | 3 |
| GE FREE | FREE ELECT - Free Electives | 9 | 3 |
| | | **12** | **15** |
| | | | **Total: 120-123 Credits** |

[1]*Includes community-based learning component*

[2]*The selection of a First Year Seminar is likely to fulfill requirements both for the First Year Seminar and a General Education Requirement. Thus, the First Year Seminar will not add to the total credits for the semester. Talk with your advisor if you have any questions.*

# Liberal Studies (PCPS)

The Liberal Studies major is a highly individualized program offered under the auspices of the College of Arts and Sciences, the Panuska College of Professional Studies and the Kania School of Management. Applicants who have attended other accredited colleges may transfer up to 60 credits for applicable courses in which a grade of C or better has been earned. Students who qualify for this interdisciplinary degree program are eligible to earn as many as 30 semester hours for academically relevant experience.

The Liberal Studies (PCPS) major is a highly individualized program offered under the auspices of the Panuska College of Professional Studies. Students gain exposure to professional issues, health promotion practices and community based learning.

Incoming students are not eligible for this program. To be eligible for admission, students must be currently enrolled at the University and have a minimum of 30 earned credits with a minimum GPA of 2.0. Applicants who have attended other accredited colleges may transfer up to 57 credits for applicable courses in which a grade of C or better has been earned.

**Notes**:

- All Liberal Studies students must take two courses designated as EP II writing Level II (EPW) and two courses designated as cultural-diversity (D).
- In compliance with terms set by AACSB accreditation, no more than 30 credits of the concentration may be courses in the Kania School of Management.
- The only Physical Education courses that may be counted towards the Liberal Studies degree are those that are 3 or more credits.
- Students must complete a minimum of 40 hours of community based learning. PCPS academic advisors will work with students to develop an individualized plan to meet this requirement.
- No minors are granted with the Liberal Studies program.

No transcripted interdisciplinary programs are accepted as Liberal Studies concentrations.

## BS in Liberal Studies Curriculum

| **General Education** | | ***Credits*** |
|---|---|---|
| Natural Science | | 6 |
| Quantitative Reasoning[1] | | 3 |
| Social/Behavioral Sciences | | 6 |
| Skills Acquisition | | |
| | WRTG 107 - (FYW) Composition | 3 |
| | Eloquentia Perfecta I | 3 |
| Humanities[2] | | 12 |
| Philosophy and Theology/Religious Studies | | |
| | PHIL 120 - Introduction to Philosophy | 3 |
| | PHIL 210 - Ethics | 3 |
| | T/RS 121 - (P) Theology I: Introduction to the Bible | 3 |
| | T/RS 122 - (P) Theology II: Introduction to Christian Theology | 3 |
| | PHIL-T/RS ELECT | 3 |
| General Education Electives | | 12 |
| | | **60** |

| | | |
|---|---|---|
| Concentrations[3] | | |
| *Student may complete three or four concentrations, having no fewer than 15 credits and no more than 24 credits per concentration.* | | **60** |
| | | **Total: 120 Credits** |

[1]*If placement testing indicates a need for MATH 005, it will be placed in the free elective areas.*

[2] *Credits must be earned in at least two areas with 6 credits from one area (HIST, LIT or LANG) and a maximum of 3 credits from the ARTS/MUSIC/THEATRE area.*

[3]*Two EP Writing courses must be completed as part of one or more concentration area.*

# Nursing

## Faculty

Kimberly Subasic, Ph.D., MS, RN, CNE, *Chair*

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## Overview

The mission of the Department of Nursing at The University of Scranton is to provide excellence in the education of those desiring to become registered professional nurses and advanced practice nurses. The faculty prepare nurses grounded in Jesuit ideals, who are prepared to grow in competence, conscience, and compassion as they deliver safe, evidence-based, patient

centered care to individuals, families, communities and populations. The professional development of students includes responding to the health care needs of society through integration of service to others, development of a realistic knowledge of the world they live in and particular concern for the poor and marginalized in society. Through evidence based practice, clinical expertise and professional development graduates provide leadership in health care, social justice and health care advocacy for all.

The Nursing program reflects a curriculum that is responsive to the health-care needs of society. The purpose of the baccalaureate program is to prepare beginning professional nurses, who as generalists possess clinical competence to function in various settings. Maintaining the integrity of the profession and its practice is developed through experiences that emphasize principles of leadership, professional ethics, social justice and health-care advocacy. The baccalaureate program provides a foundation for graduate education in nursing.

High school graduates are admitted as first year students into the program, which leads to a Bachelor of Science degree with a major in Nursing. Total class enrollment is limited in consideration of educational and clinical resources. The curriculum can be completed in eight regular semesters of full-time study or four academic years.

## Accreditation and State Approval

The University of Scranton's baccalaureate and master's degree nursing programs are accredited by the Commission on Collegiate Nursing Education (CCNE), 655 K. Street NW, Suite 750, Washington, DC 20001-1120, (202) 887-6791 (202) 887-8476 FAX. The program has full approval of the Pennsylvania State Board of Nursing.

Applicants and students should be aware that Pennsylvania law prohibits licensure of individuals convicted of felonies related to controlled substances, and may prohibit licensure if there is a conviction for any felonious act. By August 1st, prior to the beginning of the sophomore year, all Nursing majors (including LPN and RN students) are required to submit a Pennsylvania Child Abuse History Clearance, a Pennsylvania State Police Criminal Record Check, and a FBI background check. All records are maintained via castlebranch.com. Copies will be provided to clinical sites upon request. Students must also be able to perform the functions and meet the standards outlined in the Department of Nursing policy "Essential Functions and Safety Standards". For details on the Essential Functions and Safety Standards policy and the implications of conviction for a felonious act see the admissions materials and the *Student Handbook* of the Department of Nursing.

Upon graduation the student is eligible for admission to the NCLEX (National Council Licensure Examination) and upon successfully passing the NCLEX exam, the student will be licensed as a registered nurse.

## Academic Requirements

The curriculum is based on a planned progression of courses that develop and build upon knowledge and skills at levels of increasing complexity. Therefore, all required courses must be taken in sequence. For progression through the Nursing program, a minimum grade of C must be attained in each of the prerequisite Natural Science courses (BIOL 110 -111, BIOL 210, CHEM 110-111, NUTR 220). A minimum grade of C must be attained in the prerequisite Quantitative course, PSYC 210, and in each Nursing course. Students who score less than a 13 on the Math Placement exam must seek individual advising from the Department of Nursing.

A cumulative GPA of 2.50 or higher and a GPA of 2.70 or higher in nursing courses is required for progression to the junior level. To maximize success in the national licensure examination (NCLEX), senior students are required to complete an NCLEX review course at the University of Scranton prior to taking the exam.

## *Final Grade for Nursing Courses with Concurrent Clinical Laboratory*

Students must pass both the classroom and laboratory component of nursing courses with clinical laboratories in order to receive credit for both components. The clinical laboratory component of a Nursing course shall be graded on the basis of Satisfactory or Unsatisfactory. Students are required to complete the clinical rotation with a Satisfactory evaluation. The grade recorded for the clinical laboratory component will be the same as the grade assigned for the lecture component of the course. If a student's performance in the clinical laboratory of a Nursing course is unsatisfactory, a grade of F is recorded for both the laboratory and theoretical component of the course. If a student receives a grade of C-, D+, D or F in the theoretical component of the course, the same grade is assigned to the clinical component of the course. Both lecture and clinical components of a course must be repeated if a grade of C-, D+, D or F is obtained in a Nursing course. Students may repeat only one nursing course.

## *Clinical Requirements*

*It is the policy of the University of Scranton that all freshman students submit a history and physical exam to the student health center. Since there are no clinical requirements during the freshman academic year, a pre-entrance health history and examination is to be submitted to the Department of Nursing by the sophomore student nurse by the due date prior to the first day of classes of the fall semester of the sophomore year. All RN and LPN to BSN students must adhere to the same clinical requirements as traditional undergraduate students.*

**The sophomore level pre-entrance health examination shall include:**

- A complete history and physical examination administered by a physician or qualified health care provider of the student's choice.
- A tuberculin skin test; the PPD or Mantoux test is the only acceptable test. The initial PPD done prior to the onset of the sophomore level must be a two-step PPD. If the PPD test is positive or the student has a history of a positive PPD, a chest x-ray and a completed "Tuberculosis Symptom Screening Questionnaire" is required.
- Evidence of receiving the series of three immunizations for poliomyelitis is required.
- Students must also show evidence of immunity to measles, mumps and rubella by providing: a) laboratory evidence of immunity as indicated by positive IgG titers for measles, mumps, rubella or b) documentation of receiving the series of two vaccinations of MMR. If the student was never vaccinated and provides evidence of a negative or equivocal IgG titer to measles and or mumps the student must provide documentation of having received 2 doses of MMR 28 days or greater apart; if not immune to rubella one documented dose of MMR is required or one dose of live rubella vaccine.
- Student must provide evidence of immunization for tetanus/diphtheria within the past ten years and must have received at least one dose of the Tdap (Adacel or Boostrix) vaccine.
- Immunity to varicella is required and proof of immunity is evidenced by: a) providing documentation of receiving 2 doses of the varicella vaccine or b) submitting a positive IgG titer for varicella.
- Hepatitis B immunization is strongly recommended. Students are required to submit documentation of receiving the 3-dose series of the hepatitis B vaccine. If the student never received the vaccine series and refuses to do so, he/she must sign a hepatitis B vaccine declination form and submit it to the Department of Nursing. A hepatitis B surface antibody titer is also required; if negative, the student is encouraged to receive booster doses of the vaccine, and if he/she refuses they must sign and submit a declination waiver to the Department of Nursing.
- Evidence of health insurance coverage.
- A drug screening test is required prior to each semester with a clinical component.
- Influenza vaccine is required each year for the current flu season. The deadline date to receive the flu vaccine is October 15th.

Prior to the beginning of each subsequent academic year in which the student is enrolled in the nursing program, the student will submit the following: a two-step Mantoux PPD test (within the past 3 months), and other diagnostic examinations which are deemed necessary for the promotion of health; evidence of completed immunizations as indicated previously; and health insurance coverage. Students with a history of a positive PPD test must complete a "Tuberculosis Symptom Screening Questionnaire." If there are any positive findings on the questionnaire a repeat chest x-ray is required. However, for those students whose PPD has converted to positive since their previous PPD test, a chest x-ray is required.

Failure to upload, by the due date, all appropriate completed physical exams, required evidence of immunity and/or results of screening tests to castlebranch.com for review by faculty and staff of The University of Scranton Department of Nursing will **prevent** student attendance in clinical courses. Health documents maybe shared with clinical agencies, per agency request and with student's written consent.

## *Insurance*

Students enrolled in the nursing program are responsible to have health and accident insurance. In addition, students are required to purchase professional liability insurance prior to the second semester of the sophomore year, i.e., prior to the first clinical nursing course, Nursing 251. The University purchases this liability insurance and the student pays the premium, which is included in the Laboratory Fees. Each student must then maintain liability insurance throughout enrollment in the nursing courses. If an incident occurs, the University Report Form will be utilized and placed in the student's file, with a copy sent to the Dean and the original sent to the Treasurer's office.

## *CPR Certification Policy*

Prior to the start of the sophomore academic year, and continuously through graduation, students enrolled in the nursing program must be certified in Cardiopulmonary Resuscitation (CPR) and AED for healthcare providers. All students must have a current American Heart Association "BLS for the Provider Course" with AED certification. This is the only accepted CPR certification. Current CPR certification will be verified prior to the initial clinical experience each year.

## *Background Checks and Drug Testing*

Pennsylvania State Police Criminal Background Check (Act 169) and PA Child Abuse Background Check (Act 34) are required by all students prior to enrollment in N250. In addition out-of-state students must complete a FBI Background Check with the Department of Aging and in-state students must complete a FBI Background Check with the Pennsylvania Department of Human Services.

Yearly background checks are required prior to the start of each subsequent academic school year and are to include: Pennsylvania State Police Criminal Background Check, PA Child Abuse Background Check and FBI Background Check with the Pennsylvania Department of Human Services.

Students will register online at Castle Branch. Instructions on how to obtain background checks will be provided to the student from Castle Branch. Results of the Pennsylvania State Police Background Check will be automatically sent to Castle Branch. The results of the other background checks will be mailed to the student's residence and will need to be uploaded by the student to Castle Branch.

Students will be able to view their own results on Castle Branch's secure website as well as the Lab Director. Background check results may be shared with clinical agencies upon request and with a student's written permission. A positive background check may prohibit a student from participating in the clinical requirements for the course.

Drug testing is required by clinical agencies and students will be tested prior to the start of each semester with a clinical component starting at the sophomore level. Drug testing will be coordinated through Castle Branch. Students will register and pay for a drug test at Castle Branch. Castle Branch will provide instructions on how to obtain a drug test and will post the results so that they can be viewed by the student and the Department of Nursing Clinical Coordinator. A positive drug test may prohibit the student from participating in the clinical requirements for the course.

Students should be aware that Pennsylvania law prohibits licensure of individuals convicted of felonies related to controlled substances, and may prohibit licensure if there is a conviction for a felonious act.

A STUDENT WILL NOT BE ALLOWED TO ATTEND CLINICAL WITHOUT SUBMITTING THE REQUIRED BACKGROUND CHECKS AND DRUG TESTING RESULTS BY THE DUE DATES.

Community Based Learning: In order to graduate, Nursing majors are required to complete a minimum of 20 hours of community based learning during freshman and sophomore years, for a total of 40 hours. LPN to BSN and RN to BSN students will meet the community based learning requirement by completing major courses that have a community based learning component.

## Additional Expenses

In addition to the general University tuition and fees, students majoring in Nursing assume responsibility for the following: required background checks and drug testing, uniforms and other required clinical accessories, physical examinations, immunizations, comprehensive achievement tests, liability insurance, health insurance and any travel expenses incurred. Students must also provide their own transportation to and from agencies utilized for clinical laboratories and visits. Students must expect to be assigned to one or more weekend clinical rotations. Senior status in the program is defined as completion of at least 100 credits, including cognate and prerequisite courses.

The Department of Nursing also offers a flexible program for registered nurses and licensed practical nurses interested in returning to school to complete a bachelor's degree in nursing. An accelerated track is offered for students interested in pursuing graduate education and who meet the admission criteria for this option.

## Study Abroad for Nursing Majors

Nursing majors have an option to study abroad in the spring of the sophomore year. To stay on track in the curriculum, students are required to complete the sophomore Nursing requirements prior to the study abroad experience. This provides students freedom to select from a variety of study abroad options. *A GPA of 3.00 at the end of the freshman year is required to be eligible for study abroad.*

## Course Information

Courses for Nursing are listed under the prefix NURS. For more information on these courses, visit our Nursing Department Courses page. For more information on all courses offered, visit our Course Descriptions page.

# Nursing, BSN

## Nursing Curriculum

| | *Department and Number - Descriptive Title of Course* | *Fall Cr.* | *Spr. Cr.* |
|---|---|---|---|
| **First Year** | | | |
| MAJOR | NURS 140 - (FYOC,FYDT) Introduction to Nursing Concepts[1&2] | | 3 |
| GE NSCI | CHEM 110-111 - (E) Introductory Chemistry | 3 | 3 |
| GE NSCI | BIOL 110 -111 - (E) Human Anatomy and Physiology | 4 | 4 |
| GE WRTG | WRTG 107 - (FYW) Composition | 3 | |
| GE ELECT | FREE ELECT - Free Elective | | 3 |
| GE PHIL | PHIL 120 - Introduction to Philosophy | 3 | |
| GE S/BH | PSYC 110 - (S) Fundamentals of Psychology | 3 | |
| GE HUMN | HUMN - Humanities Elective | | 3 |
| GE FSEM | First Year Seminar* | | |
| | | **16** | **16** |
| **Second Year** | | | |
| MAJOR | NURS 250 - (EPW: lab only) Physical Assessment Related to Health Patterns[2] | 3 | |
| MAJOR | NURS 251 - Fundamentals of Nursing[2] | | 4 |
| MAJOR | NURS 262 - Pharmacology I | | 1.5 |
| COGNATE | NUTR 220 - Nutrition for the Health Care Professions[1] | | 3 |
| COGNATE | BIOL 210 - Introductory Medical Microbiology | 3 | |
| GE QUAN | PSYC 210 - (Q) Statistics in the Behavioral Sciences | | 3 |
| GE PHIL | PHIL 210 - Ethics | 3 | |
| GE T/RS | T/RS 121 - (P) Theology I: Introduction to the Bible – T/RS 122 - (P) Theology II: Introduction to Christian Theology | 3 | 3 |
| GE HUMN | HUMN ELECT - Humanities Electives | 3 | |
| GE S/BH | PSYC ELECT - Psychology Elective | | 3 |

| | | | |
|---|---|---|---|
| | | **15** | **17.5** |
| **Third Year** | | | |
| MAJOR | NURS 350 - Nursing Care of the Adult I – NURS 371 - Nursing Care of the Adult II | 5.5 | 5.5 |
| MAJOR | NURS 352-352L - Mental Health Nursing | 5.5 | |
| MAJOR | NURS 373 - Nursing Care of the Childbearing Family[3] | | 5 |
| MAJOR | NURS 360 - Pharmacology II – NURS 361 - Pharmacology III | 1.5 | 1.5 |
| GE PHIL | PHIL 212 - (P) Medical Ethics[4] | 3 | |
| GE ELECT | FREE ELECT - Free Elective | | 3 |
| | | **15.5** | **15** |
| **Fourth Year** | | | |
| MAJOR | NURS 450 - Nursing Care of the Adult III | 5.5 | |
| MAJOR | NURS 452 - Nursing Care of Children and Adolescents[3] | 4.5 | |
| MAJOR | NURS 493 - (EPW) Research in Nursing | 3 | |
| MAJOR | NURS 471 - (D) Community Health Nursing | | 3.5 |
| MAJOR | NURS 472 - Advanced Nursing Concepts[5] | | 6 |
| MAJOR | NURS 491 - Senior Seminar | | 1 |
| GE HUMN | HUMN ELECT - Humanities Electives | 3 | 3 |
| GE ELECT | FREE ELECT - Free Electives | | 3 |
| | | **16** | **16.5** |
| | | | **Total: 127.5 Credits** |

[1]*Fall or spring semester*

[2]*Community Based Learning*

[3]*Junior Spring or Senior Fall Semester*

[4] *Recommended by the Department*

[5]*ROTC option available*

[*]*The selection of a First Year Seminar is likely to fulfill requirements both for the First Year Seminar and a General Education Requirement. Thus, the First Year Seminar will not add to the total credits for the semester. Talk with your advisor if you have any questions.*

# Nursing, LPN to BSN

## Important Note: Applications are not currently being accepted for this program.

The LPN to BSN in Nursing option is for students who have completed a National League for Nursing accredited Licensed Practical Nurse program.

The licensed practical nurse (LPN) student is recognized as an adult learner who comes with diverse life experiences, education and clinical skills, as well as motivation and ability to learn independently. To facilitate advanced placement, opportunity is provided for students to validate, by examination, previously acquired educational and clinical competencies.

Licensed practical nurses seeking admission to the baccalaureate nursing program must meet the admission criteria for the University and submit a valid Pennsylvania LPN license.

## Planning for Enrollment

During the program, a full-time student normally attends on-campus classes during the day 2-3 days per week, in addition to either on-campus labs or off-campus clinical labs two days per week. Clinical experiences typically occur during day or evening shifts. Most clinical sites are located within 10 to 45 minutes of the campus by car. LPN's must adhere to the same clinical requirements as all undergraduate nursing majors. See Clinical requirements in catalog for details.

## Minimum Criteria for Enrollment in Nursing Courses

- Completion of specified prerequisite course work.
- A minimum of 2.00 [grade of C] in each prerequisite course,
- No more than one repeat of a prerequisite course.
- Students who score less than 13 on the math placement exam will be advised to take a remedial math course.
- Submit required civil, administrative, and criminal history clearance records.
- Must demonstrate the ability to meet the "Essential Functions and Safety Standards" described in the Policy Handbook of the Department of Nursing.

## LPN to BSN Track Prerequisites (20 credits) must be completed with a C or higher:

- BIOL 110 -111 - (E) Human Anatomy and Physiology (8 credits)
- CHEM 110-111 - (E) Introductory Chemistry (6 credits)
- PSYC 210 - (Q) Statistics in the Behavioral Sciences (3 credits)
- WRTG 107 - (FYW) Composition (3 credits)

NOTE: 'Prerequisite' courses must be completed prior to enrolling in nursing courses, while 'co-requisite' courses may be completed concurrently with some nursing courses.

## LPN-BSN: Criteria for Progression in the Nursing Program

- A minimum of C or higher in all NURS coursework.
- A minimum cumulative grade point average of 2.70 in sophomore nursing course work (NURS 241, NURS 242, and NURS 262).
- A cumulative grade point average of 2.50 or higher.

## Credit by Examination [14cr lecture & 10.5cr lab/total of 24.5 credits]

All LPN-BSN students are eligible to earn credits for clinical courses in the content areas of Fundamental Skills, Maternity, Pediatrics, and Basic Medical-Surgical Nursing. The Clinical Skills Challenge Exams are offered in June and July of each year. Enrollment in the Clinical Skills Challenge is required for the extended summer session. Depending on the number of LPNs enrolled in the program, the Skills Challenge may only be offered every other year. This will be made known to the student upon application to the program.

## Advanced Placement Options:

[14cr lecture] *Kaplan Integrated Testing: Raw score of 68 required on all tests.

Maternity & Pediatric Nursing – Advanced Placement Exams [6cr] NURS 373, NURS 452

Nursing Care of the Adult– Advanced Placement Exam [8cr] NURS 251, NURS 350, NURS 37

Clinical Skills Challenge Testing [10.5cr lab]

Maternity/Pediatrics & Basic Medical-Surgical Skills [10.5cr] NURS 251L, NURS 350L, NURS 371L, NURS 373, NURS 452L

## All LPNs are required to enroll in NURS 450 and NURS 450 LAB

*Advanced Placement examination credits* are only applicable to the nursing major at the University of Scranton, are not calculated in the GPA, and are not transferrable to another major. Additional transfer or portfolio credits for other course work may be earned as per university and departmental policy.

In addition to major courses, students must complete required General Education Courses that may be taken at any level of the curriculum.

## Course of Study in the Nursing Major (Upon completion of pre-requisite courses)

## Level I

**Fall**

BIOL 210w/lab - Introductory Medical Microbiology (3cr)

NURS 241 - (FYDT, FYOC) Perspectives in Professional Nursing (3cr)

NURS 262 - Pharmacology I (1.5cr)

**Spring**

NURS 242w/lab - Health, Illness and Assessment (3cr)

NUTR 220 - Nutrition for the Health Care Professions (3cr)

## Level II

**Fall**

NURS 350** - Nursing Care of the Adult I (3cr)

NURS 352-352L - Mental Health Nursing (5.5cr)

NURS 360 - Pharmacology II (1.5cr)

**Spring**

NURS 371** - Nursing Care of the Adult II (3cr)

NURS 373** - Nursing Care of the Childbearing Family (3cr)

NURS 361 - Pharmacology III (1.5cr)

**Fall**

NURS 450w/lab - Nursing Care of the Adult III (5.5cr)

NURS 452** - Nursing Care of Children and Adolescents (3cr)

NURS 493 - (EPW) Research in Nursing (3cr)

**Level III** \

NURS 471w/lab - (D) Community Health Nursing (3.5cr)

NURS 472w/lab - Advanced Nursing Concepts (6cr)

NURS 491 - Senior Seminar (1cr)

## Post Graduation Requirement

NCLEX Three [3] Day Review Course - After graduation

** Nursing Care of the Adult I & II (NURS 350 and NURS 371) - Nursing Care of the Childbearing Family (NURS 373 and NURS 452) can be challenged by Advanced Placement examinations.

# LPN to BSN Curriculum

| | *Department and Number - Descriptive Title of Course* | Fall Cr. | Spr. Cr. |
|---|---|---|---|
| **First Year** | | | |
| GE NSCI | CHEM 110-111 - (E) Introductory Chemistry | 3 | 3 |
| GE NSCI | BIOL 110 -111 - (E) Human Anatomy and Physiology | 4 | 4 |
| GE WRTG | WRTG 107 - (FYW) Composition | 3 | |
| GE ELECT | EP - Eloquentia Perfecta | | 3 |
| GE PHIL-T/RS | PHIL 120 - Introduction to Philosophy | 3 | |
| GE S/BH | PSYC 110 - (S) Fundamentals of Psychology | 3 | |
| GE QUAN | PSYC 210 - (Q) Statistics in the Behavioral Sciences | | 3 |
| | | **16** | **13** |
| **Second Year** | | | |
| MAJOR | NURS 241 - (FYDT, FYOC) Perspectives in Professional Nursing | 3 | |
| MAJOR | NURS 242 - Health, Illness and Assessment | | 3 |
| MAJOR | NURS 251 - Fundamentals of Nursing [4*] | | 4 |
| MAJOR | NURS 262 - Pharmacology I | | 1.5 |
| COGNATE | NUTR 220 - Nutrition for the Health Care Professions [1] | | 3 |
| COGNATE | BIOL 210 - Introductory Medical Microbiology | 3 | |
| GE PHIL-T/RS | PHIL 210 - Ethics | 3 | |
| GE PHIL-T/RS | T/RS 121 - (P) Theology I: Introduction to the Bible T/RS 122 - (P) Theology II: Introduction to Christian Theology | 3 | 3 |

| | | | |
|---|---|---|---|
| GE HUMN | HUMN ELECT Humanities Elective | 6 | |
| GE S/BH | PSYC 226 - (S) Lifespan Development: Cognitive and Biological | | 3 |
| | | **18** | **17.5** |
| **Third Year** | | | |
| MAJOR | NURS 350 - Nursing Care of the Adult I*NURS 371 - Nursing Care of the Adult II* | 5.5 | 5.5 |
| MAJOR | NURS 352-352L - Mental Health Nursing | 5.5 | |
| MAJOR | NURS 373 - Nursing Care of the Childbearing Family* | | 5 |
| MAJOR | NURS 360 - Pharmacology II NURS 361 - Pharmacology III | 1.5 | 1.5 |
| GE PHIL - T/RS | PHIL 212 - (P) Medical Ethics [3] | 3 | |
| GE ELECT | FREE ELECT Free Elective | | 3 |
| | | **15.5** | **15** |
| **Fourth Year** | | | |
| MAJOR | NURS 450 - Nursing Care of the Adult III | 5.5 | |
| MAJOR | NURS 452 - Nursing Care of Children and Adolescents* | 4.5 | |
| MAJOR | NURS 493 - (EPW) Research in Nursing | 3 | |
| MAJOR | NURS 471 - (D) Community Health Nursing | | 3.5 |
| MAJOR | NURS 472 - Advanced Nursing Concepts [2] | | 6 |
| MAJOR | NURS 491 - Senior Seminar | | 1 |
| GE HUMN | HUMN ELECT Humanities Elective | 3 | 3 |
| GE ELECT | FREE ELECT Free Elective | | 3 |
| | | **16** | **16.5** |
| | | | **Total: 127.5 Credits** |

*Credit by Exam Optional

[1] Fall or spring semester

[2] ROTC option available

[3] Recommended by the department

[4] Community Based Learning

# Nursing, RN to BSN

**Important Note: Applications are not currently being accepted for this program.**

## Overview

The registered-nurse student is recognized as an adult learner who comes with a diversity of life experiences, education, and clinical expertise, as well as motivation and ability to learn independently and collaboratively. To facilitate advanced placement, opportunity is provided for students to validate previously acquired educational and clinical competencies.

The nursing program, accredited by the Commission on Collegiate Nursing Education (CCNE), is open to all registered nurses who meet admission requirements. The registered-nurse student may enroll on either a full-time or part-time basis.

***To apply for admission to the RN to BSN track***, students should follow the regular admissions process and submit the following with completed application forms and fees:

1. Official transcripts from high school, nursing school and other colleges attended.
2. A copy of current Pennsylvania Registered Nurse License.
3. A letter of recommendation from current employer.

Transcripts are individually reviewed and evaluated. Transfer courses, especially courses in the sciences, must be equivalent to courses in the nursing program at The University of Scranton (science courses taken at a non-degree program are accepted if they were taken at an affiliated college and received college credit); a grade of C or better must have been earned.

## Student Policies: RN Track

1. Ordinarily, to continue in the nursing program, the RN student must enroll in a minimum of one course in each regular semester.
2. The RN student is expected to complete the degree requirements within seven years from the date of admission. 57 credits in Nursing are required for the degree, 38.5 of which may be earned by verifying current employment or graduation through an original RN program less than 10 years prior to acceptance. The 38.5 validation credits are posted on the student's official transcript.
3. Students must have completed at least 100 credits prior to enrollment in NURS 493. Completion of all course work toward the baccalaureate degree is suggested prior to enrollment in NURS 474.
4. Nursing students must achieve a grade of C or better in the major and cognate courses. Once the student is enrolled, all Nursing courses must be taken at The University of Scranton.
5. Before students begin clinical work, they must submit copies of their professional malpractice-liability insurance policy, evidence of current licensure and CPR certification. RN students must adhere to the same clinical requirements as all undergraduate nursing students.
6. Students will meet the community based learning requirements by completing major courses that have a community based learning component

Students who have earned an overall GPA of 3.2 or higher and completed 90 undergraduate credit hours including NURS 241 and NURS 242 may choose an accelerated track toward the M.S.N. Graduate course substitutions can be made for undergraduate NURS 474, NURS 493 and electives. Additional information is available from the Director of the RN to BSN Track.

## RN to BSN in Nursing Curriculum

| | ***Department and Number Descriptive Title of Course*** | ***Credits*** |
|---|---|---|
| **First Year** | | |
| COGNATE | SCIENCE ELECT - Science Elective | 3 |
| COGNATE | BIOL 110 -111 - (E) Human Anatomy and Physiology | 8 |
| GE WRTG | WRTG 107 - (FYW) Composition | 3 |
| GE PHIL | PHIL 120 - Introduction to Philosophy[1] | 3 |

| | | |
|---|---|---|
| GE S/BH | S/BH ELECT–Social/Behavioral Science Elective[1,2] | 3 |
| MAJOR | NURS ELEC - Nursing Elective | 3 |
| | | **23** |
| **Second Year** | | |
| MAJOR | NURS 241 - (FYDT, FYOC) Perspectives in Professional Nursing | 3 |
| MAJOR | NURS 242 - Health, Illness and Assessment | 3 |
| COGNATE | BIOL 210 - Introductory Medical Microbiology | 3 |
| MAJOR | NURS ELECT – Nursing Elective | 3 |
| COGNATE | PSYC 210 - (Q) Statistics in the Behavioral Sciences or EDUC 120 - (Q) Applied Statistics | 3 |
| GE T/RS | T/RS 121 - (P) Theology I: Introduction to the Bible | 3 |
| GE PHIL–T/RS | PHIL 210 - Ethics – T/RS 122 - (P) Theology II: Introduction to Christian Theology | 6 |
| GE HUMN | HUMN ELECT - Humanities Electives | 9 |
| GE S/BH | S/BH ELECT - Social/Behavioral Science Elective[2] | 3 |
| | | **36** |
| **Third Year** | | |
| MAJOR | NURS - Nursing Validation Credits | 38.5 |
| GE PHIL-T/RS | PHIL-T/RS ELECT - Philosophy or T/RS Elective[1] | 3 |
| GE ELECT | FREE ELECT - Free Electives[2] | 6 |
| | | **47.5** |
| **Fourth Year** | | |
| MAJOR | NURS 471 - (D) Community Health Nursing[3,4] | 3.5 |
| MAJOR | NURS 474 Nursing Leadership and Management[5] | 3 |
| MAJOR | NURS ELECT - Nursing Elective[5] | 3 |
| MAJOR | NURS 493 - (EPW) Research in Nursing[5] | 3 |
| GE HUMN | HUMN ELECT - Humanities Elective | 3 |
| GE ELECT | FREE ELECT - Free Elective[5,6] | 3 |
| | | **18.5** |
| | | **Total: 125 Credits** |

[1]*Fall or spring*

[2]*Department recommendation:* PSYC 110, PSYC 226 *or* PSYC 225

[3] *Portfolio option available*

[4] *Clinical Practicum Fee*

[5] *Optional B.S./M.S. course substitution*

[6] *Department recommendation:* PHIL 212

# Occupational Therapy

## Faculty

Carol Coté, Ph.D., OTR/L, *Chair and Program Director*

Michael Bermudez, Ed.D., OTR/L

Deborah E. Budash, Ph.D., OTR/L

Karen L. Brady, D.Ed., OTR/L

Chandra A. Dombroski, M.S., DPT

Julia M. Guzman, OTD, OTR/L

Lisa A. Kozden, MOT, OTR/L, CHT, COMT

William Lambert, M.S., OTR/L

Marlene J. Morgan, Ed.D., OTR/L

Julie Nastasi, ScD, OTD, OTR/L, SCLV, FAOTA

Carol Reinson, Ph.D., OTR/L

Patricia A. Wisniewski, M.S., OTR/L, CPRP

## Overview

The University offers a five-year, entry-level Master of Science degree program in Occupational Therapy (OT). Students usually enter this program as freshmen, proceed through four years of undergraduate study, receive a Bachelor of Science degree in Health Sciences, and are awarded the M.S. in OT degree upon completion of graduate requirements. The course work is sequenced in a planned progression in order to build upon and develop knowledge and skills at increasing levels of complexity, competence and integration. Therefore, all required courses are to be completed in sequence. A minimum grade of C (2.00) must be attained in every undergraduate cognate and OT course.

A minimum, overall, undergraduate GPA of 3.00 is required in order to advance into graduate study; a minimum, overall GPA of 3.00 must be achieved and maintained throughout the graduate year. Required OT Level II Internships are graded on a Credit/No Credit basis. The normal length of time for completion of the program is five and one-quarter years. All OT students must complete Level II Fieldwork within 24 months following completion of the academic portion of the program. Students will receive the M.S. in OT degree following completion of all academic and clinical requirements.

Admission to the program is normally open to first-time incoming freshmen; transfer students are considered for admission on an individual basis. Applicants are selected on a competitive basis, with emphasis placed on high school record, standardized test scores, extracurricular activities, and letters of recommendation. It is suggested that prospective students observe and/or volunteer in an occupational therapy setting. The Admissions Office will request this information prior to registration. Since the majority of course work is at the undergraduate level, the OT program is described in detail in the University's undergraduate catalog rather than in the graduate catalog.

## Capstone Experience

Each student is required to complete a faculty mentored research internship. The foundation for this experience is OT 350 - (EPW) Quantitative and Qualitative Research Methods, then in the spring semester of senior year students begin a three-

semester, project-based scholarly experience: OT 492 - Research and Scholarship I, OT 592 - Research and Scholarship II, and OT 593 - Research and Scholarship III. The internship involves active group participation in a faculty mentored research project. Students are required to present the outcome of their research internship in a public forum during the graduate year.

## Accreditation

The Entry Level Occupational Therapy Program is accredited by the Accreditation Council for Occupational Therapy Education (ACOTE) of the American Occupational Therapy Association (AOTA) c/o Accreditation Department, American Occupational Therapy Association (AOTA) 4720 Montgomery Lane, Suite 200, Bethesda, MD 20814-3449. ACOTE's phone number is c/o AOTA (301) 652-AOTA and its web address is www.acoteonline.org. Graduates of the program who have completed all academic and fieldwork requirements are able to sit for the national certification examination for the occupational therapist administered by the National Board for Certification in Occupational Therapy (NBCOT). After successful completion of this examination, the individual is an Occupational Therapist, Registered (OTR). Candidates will need to provide documentation of all graduation and credentialing requirements, including certification/licensure. A felony conviction may affect a graduate's ability to sit for the certification examination or attain state licensure. Most states require licensure in order to practice; however, state licenses are usually based on the results of the NBCOT Certification Examination.

## Course Information

Courses for **Occupational Therapy** are listed under the prefix OT. For more information on these courses, visit the Occupational Therapy Department Courses page. For more information on all courses, visit our Course Descriptions page.

# Occupational Therapy

## Occupational Therapy Curriculum

| | *Department and Number - Descriptive Title of Course* | *Fall Cr.* | *Int. Cr.* | *Spr. Cr.* | *Sum. Cr.* |
|---|---|---|---|---|---|
| **First Year** | | | | | |
| MAJOR | OT 120 - (FYOC,FYDT) Foundations of Occupational Therapy | 3 | | | |
| MAJOR | OT 121 - Occupational Performance | | | 3 | |
| COGNATE | BIOL 110/L- BIOL 111/L (E) Human Anatomy and Physiology | 4 | | 4 | |
| COGNATE | PHYS 120/PHYS 120L - (E) General Physics I | | | 4 | |
| GE T/RS | T/RS 121 - (P) Theology I: Introduction to the Bible | 3 | | | |
| GE FYW | WRTG 107 - (FYW) Composition | 3 | | | |
| GE PHIL | PHIL 120 - Introduction to Philosophy | | | 3 | |
| GE S/BH | PSYC 110 - (S) Fundamentals of Psychology | | | 3 | |
| GE FSEM | First Year Seminar[1] | | | | |
| | | **13** | | **17** | |
| **Second Year** | | | | | |
| MAJOR | OT 230 - Anatomy & Mechanics of Human Movement/OT 230L | 3 | | | |

| | | | | | |
|---|---|---|---|---|---|
| MAJOR | OT 231 - Neuroanatomy of Function | | | 3 | |
| MAJOR | OT 250 - (EPW) Scientific Writing and Information Literacy | | | 3 | |
| COGNATE | PSYC 210 - (Q) Statistics in the Behavioral Sciences OR EDUC 120 - (Q) Applied Statistics | 3 | | | |
| COGNATE | PSYC 225 - (S) Abnormal Psychology | | | 3 | |
| COGNATE | PSYC 226 - (S) Lifespan Development: Cognitive and Biological | | | 3 | |
| GE HUMN | HUMN ELECT - Humanities Electives | 3 | | 3 | |
| GE S/BH | SOC 110 - (S) Introduction to Sociology | 3 | | | |
| GET/RS | T/RS 122 - (P) Theology II: Introduction to Christian Theology | 3 | | | |
| GE ELECT | FREE ELECT - Free Elective | | | 3 | |
| | | **15** | | **18** | |
| **Third Year** | | | | | |
| MAJOR | OT 320 - Children and Youth Practice I/ OT 320L – OT 321 - Children and Youth Practice II/ OT 321L | 3 | | 3 | |
| MAJOR | OT 322 - Mental Health in Occupational Therapy Practice/ OT 322L | | | 3 | |
| MAJOR | OT 340 - Promoting Health and Well-Being | | | 3 | |
| MAJOR | OT 350 - (EPW) Quantitative and Qualitative Research Methods | 3 | | | |
| MAJOR | OT 380 - Occupational Therapy Level I Clinical - I: Pediatrics[2] | | 1 | | |
| MAJOR | OT 381 - Occupational Therapy Level I Clinical - II: Psychosocial Rehabilitation[2] | | | | 1 |
| COGNATE | CHS 333 - (D) Multiculturalism in Counseling and Human Services — CHS 341 - Group Dynamics | 3 | | 3 | |
| GE PHIL | PHIL 210 - Ethics | 3 | | | |
| GE PHIL | PHIL 212 - (P) Medical Ethics, PHIL 316 - (P) American Perspectives on Health-Care Ethics, T/RS 226 - (P) Faith and Healing: God and Contemporary Medicine OR T/RS 332 - (P,D,EPW) Theology and Disability | | | 3 | |
| GE HUMN | HUMN ELECT - Humanities Elective | 3 | | | |
| | | **15** | **1** | **15** | **1** |
| **Fourth Year** | | | | | |
| MAJOR | OT 420 - The Occupational Therapy Process in Physical Rehabilitation I/OT 420L | 3 | | | |
| MAJOR | OT 421 - The Occupational Therapy Process in Physical Rehabilitation II/OT 421L | | | 3 | |

| | | | | | |
|---|---|---|---|---|---|
| MAJOR | OT 422 - The Functional Upper Extremity/OT 422L | 3 | | | |
| MAJOR | OT 423 - (D) Occupational Therapy Practice in Adulthood and Aging | | | 3 | |
| MAJOR | OT 424 - Functional Visual Performance | | | 3 | |
| | OT 450 - Supervision and Management | 3 | | | |
| MAJOR | OT 480 - Occupational Therapy Level I Clinical III: Physical Rehabilitation[2] | | 1 | | |
| MAJOR | OT 491 - Research and Scholarship I OTD | 2 | | | |
| MAJOR | OT 493 - Research and Scholarship II OTD | | | 2 | |
| GE HUMN | HUMN ELECT-Humanities Elective | 3 | | | |
| GE ELECT | FREE ELECT - Free Electives | 3 | | 3 | |
| | | **17** | **1** | **14** | |
| **Fifth Year** | | | | | |
| MAJOR | OT 581 - OT Level II Fieldwork – I[3] | | | | 6 |
| MAJOR | OT 520 - Advanced Occupational Performance I | 3 | | | |
| MAJOR | OT 521 - Advanced Occupational Performance II | | | 3 | |
| MAJOR | OT 526 - Neurocognitive and Neuromotor Challenges: Assessments & Interventions | 3 | | | |
| MAJOR | OT 525 - Occupational Therapy in Community Settings | | | 3 | |
| MAJOR | OT 530 - Topics in Occupational Therapy I | 1 | | | |
| MAJOR | OT 531 - Topics in Occupational Therapy II | | | 1 | |
| MAJOR | OT 542 - Understanding Disability and the Therapeutic Relationship | 3 | | | |
| MAJOR | OT 550 - Graduate Seminar in Theory | 3 | | | |
| MAJOR | OT 701 - Doctoral Capstone I | 3 | | | |
| MAJOR | OT 702 - Doctoral Capstone II | | | 3 | |
| | | **16** | | **10** | **6** |
| **Sixth Year (Summer)** | | | | | |
| MAJOR | OT 582 - OT Level II Fieldwork – II[3] | | | | 6 |
| MAJOR | OT 703 - Doctoral Capstone III | 2 | | | |
| MAJOR | OT 744 - Advanced Leadership Principles, Ethics and Pragmatics | 3 | | | |
| MAJOR | OT 750 - Advanced Assessment Across the Lifespan | 3 | | | |

| | | | | | |
|---|---|---|---|---|---|
| MAJOR | OT 730 - Topics in Occupational Therapy III | 1 | | | |
| MAJOR | OT 780 - Capstone Experience | | | 6 | |
| | | **10** | | **6** | **6** |
| | | | | | |

[1]*The selection of First Year Seminar is likely to fulfill the requirements for both First Year Seminar4 and General Education. Thus, the First Year Seminar will not add to the Total Credits for the Semester. Talk to your advisor if you have questions.*

[2]*OT Level I Clinical I, II and III are each a minimum 40-hour and are completed in pediatric, mental health, and physical rehabilitation.*

[3]*Level II Fieldwork I and II are required 12-week clinical rotations that are completed on a full-time basis in different practice areas including physical rehabilitation, mental health, pediatrics, hand therapy, and community-based settings.*

# Physical Therapy

## Faculty

Renée M. Hakim, Ph.D., PT, NCS, Chair

Anthony F. Carusotto, DPT, CLT

Tracey L. Collins, M.B.A., Ph.D., PT, GCS

Peter M. Leininger, Ph.D., PT, OCS,

Dana R. Maida, DPT, GCS

Nicholas P. Rodio, DPT

Janette Scardillo, DPT, MPT, CBIS

Jennifer Schwartz, DPT, NCS

Lori M. Walton, Ph.D.

## Overview

There is no undergraduate major in Physical Therapy. The University of Scranton offers the DPT (Doctor of Physical Therapy) program as a full-time, first professional, entry-level degree with no option for part-time study. Qualified candidates will have earned a baccalaureate degree, completed all of the required prerequisites, and met the academic and professional behavior standards set forth the by the Department of Physical Therapy. The department strives to enroll graduate-level students who are academically strong, caring and committed to the profession of physical therapy.

The DPT curriculum is designed to develop Doctors of Physical Therapy who are knowledgeable, competent, service-oriented, self-assured, adaptable, reflective and sensitive to individual diversity. We are committed to the graduation of entry-level physical therapists who meet the changing needs of the individuals who they will serve and are capable of providing physical therapy services in any physical therapy setting.

The professional phase of the program requires three complete years, comprised of six semesters and three summer sessions. Following completion of all prerequisites and acceptance into the DPT program, course work begins in June with Anatomy for PT. Two ten-week clinical experiences occur during the second and third summer sessions and one fourteen-week clinical experience during the entire final/spring semester of the program. Clinical sites are located primarily in the mid-Atlantic and northeastern regions of the United States, but the department also maintains clinical contracts throughout the country.

Visit the Physical Therapy Department online at www.scranton.edu/pt.

A complete description of the DPT admission requirements, essential functions, curriculum and course descriptions can be found in the *Graduate Studies Catalog.*

## *DPT Guaranteed Seat*

*A select group of incoming freshman who indicate an interest in the DPT program on their applications for admission will be offered a guaranteed seat in the DPT program as they enter The University of Scranton. The guaranteed seat is conditional and is based on the overall strength of the student's application to the DPT program. All of the requirements for undergraduate students admitted in fall 2020 and offered a guaranteed seat to the DPT in 2024 are delineated in the 2020 Graduate Studies Catalog.*

## Physical Therapy, Doctor of

For more information about the Physical Therapy department, visit our website.

# Course Descriptions

## 1st Yr. Seminar: ARTH 111X - (FYS,CA) Art, Time and Place

3 cr.

Art, Time and Place explores public, private and sacred spaces, and the art and architecture that identifies and defines these spaces. In this course, students will study, through art, how past history informs life both in Scranton and on campus. A field trip to New York City's Metropolitan Museum of Art is included.

## 1st Yr. Seminar: BIOL 120X (E,FYS) - Explore NEPA

3 cr.

This course will expose the student, serving as both subject and investigator, to the landscapes of Northeastern Pennsylvania, as they assess physiological adaptations to exercise and learn the physiological and psychological benefits of an active, healthy lifestyle. The student also will learn how governmental and private organizations conserve and maintain land for public use, will learn the types of activities made possible through these efforts, and will participate in service work to promote stewardship of Pennsylvania's natural resources. The course also will fulfill First Year Seminar learning outcomes, as described in the syllabus.

## 1st Yr. Seminar: BUAD 101X - (FYS,S) Ideas of Business

3 cr.

This course is designed to introduce first-year students to life at a Jesuit University and prepare them for an academic study of the interdisciplinary nature of business. Topic coverage will focus on issues and strategies faced in today's business environment, transitional issues when beginning college, and the Ignatian Identity.

## 1st Yr. Seminar: CHS 100X - How the Jesuit Mission is Re-inventing the Helping Professions

3 cr.

A first-year seminar course for those seeking to reinvent the helping professions through a deeper understanding of the Catholic Jesuit mission.

## 1st Yr. Seminar: CHS 110X - (FYS) The Ignatian Imagination

3 cr.

This course introduces participants to life at a Jesuit university and life-long learning. Reflection on the aspirations of UofS students and integration with the vision and values inspired by the Ignatian spirit, as well as a faculty-student mentoring relationship, are central to the course.

## 1st Yr. Seminar: COMM 121X - Mythology in the Media

3 cr.

This FYS defines mythology and presents basic creation and hero myths from the ancient Greek, Egyptian, and Norse cultures. We will then analyze the modern interpretation and representation of those myths through modern media and discuss how they help shape American culture.

## 1st Yr. Seminar: COMM 125X - (FYS,S) Mass Media, Stereotypes, & the Future of the American Male

3 cr.

Throughout this course, we will examine the powerful influences of mass media in the forms of advertising, film, TV, music, video games, and sports culture in creating and sustaining negative male stereotypes. Further, this course will explore the implications of these media stereotypes in influencing negative behavior, impacting a wide range of areas from academics, career, family, and parenting. Specific examples from a wide range of media sources will be viewed and discussed to clearly illustrate key theories from Accumulation to Modeling theory. Additionally, we will explore possible remedies, such as the positive attributes of Ignatian Identity and University Mission, to overcome these long-term destructive behaviors.

## 1st Yr. Seminar: COMM 127X - (FYS) Understanding the iGen Generation

3 cr.

This First Year Seminar will explore the coming of age issues unique to the first generation of smartphone and social media users. Issues will include anxiety and stress, communication, parenting, privacy, relationships, the real vs virtual world, the rapid pace of social change, technology, and hopes for the future.

## 1st Yr. Seminar: COMM 131X - Life...Backwards

3 cr.

This first-year seminar course introduces students to the life of the mind through an exploration of...life. Through directed readings, guest speakers and class discussion, students will be called to examine and critically engage with all aspects of life, from birth through death. Following the Kierkegaard suggestion about understanding life, the class will conduct this examination backward. Students will be encouraged to reflect on their own lives (and the lives of others) as they continue the journey to discover who, as the Jesuits would say, they are meant to be.

## 1st Yr. Seminar: EDUC 160X - (FYS) Imagining Childhood

3 cr.

Exploration of childhood in Western culture from a variety of philosophical, historical, religious, and aesthetic perspectives. Critical examination of texts and images as responses to perennial questions concerning childhood, human nature, education, and adult-child relations.

## 1st Yr. Seminar: ENLT 130X - (FYS,CL) Imagining College

3 cr.

In this class, we'll explore your expectations of college by looking at some of the literature, reporting, films and music that imagine college life. Along with reading and writing about those texts, you will write personal essays exploring your preconceptions, immediate responses, and eventual reflections on your own college experience.

## 1st Yr. Seminar: ENLT 131X - (FYS,CL) Living Magnificently

3 cr.

Examination of the uses of various literary genres-including fiction, autobiography, poetry, and biography-to raise questions about how we might live a good life, even a magnificent one. Drawing largely from the *Spiritual Exercises* and *Autobiography of Ignatius Loyola,* we will explore some of the ways that literature raises questions of vocation, discernment, identification, compassion.

## 1st Yr. Seminar: ENLT 132X - (FYS,CL) Dystopian Visions

3 cr.

Students will be introduced to the college-level study of fictional narratives by reading and viewing a group of novels and films that fall generally into the category of recent and contemporary dystopian science fiction. Discussions and writing assignments will emphasize critical reading skills and forensic argument.

## 1st Yr. Seminar: ENLT 133X - (FYS) Marx, Freud, Literature

3 cr.

This course in literature & literary criticism will begin with an introduction to Marxist & Freudian interpretive frameworks. We will also consider a few important theoretical responses to these approaches & try to apply them to our reading of several literary texts & two or three films.

## 1st Yr. Seminar: ENLT 134X - (FYS,CL) Hardboiled Heroes & Gangsters

3 cr.

The hardboiled tradition stretches from 1920s Hemingway to today's James Ellroy, Dennis Lehane, Clint Eastwood, and Coen Brothers. This class traces the way the genre has imagined detectives, gangsters, cowboys, and superheroes as representatives of the American experience, and it examines novels, stories, and films that define the tradition's evolution.

## 1st Yr. Seminar: ENLT 135X - (FYS,CL,D) Feminism and Jesuit Education

3 cr.

This course introduces first-year students to the histories and practices of feminism and Jesuit education. In learning about what drives each approach, the student discovers the points where feminism and Jesuit education intersect: 1) transformational education geared at social justice, 2) the embrace of diversity, and 3) common teaching practices.

## 1st Yr. Seminar: ENLT 136X - (FYS) Shakespeare One Play

3 cr.

This course will structure all assignments around one Shakespeare play. Students will read the play carefully, commit to a topic, read literary criticism on the topic, write about that topic, discuss the play's connection to the Jesuit tradition, examine the play in performance, and perform speeches from the play.

## 1st Yr. Seminar: ENLT 137X - (FYS, CL, D) Race & Social Justice

3 cr.

The purpose of this course is to understand race as a social construction and comprehend how race is a central element in the realization of social justice. Several works by authors that detail what it is like to live a "raced" existence and works about Jesuit education will be read.

## 1st Yr. Seminar: ENLT 138X - (CL,FYS) An American Year

3 cr.

This class looks at literature alongside the historical events that shaped it. Each iteration of the class focuses on a single year - for instance 1962, 1928, or 1984 - and discusses a range of novels alongside, potentially, short stories, poetry, drama, and films in their contemporary context.

## 1st Yr. Seminar: ENLT 141X - (FYS,CL) Introduction to Irish Culture

3 cr.

This seminar will explore Irish culture by means of the island's major works of mythology, history, religion, art, folk story, fairy tale, music, song, verse, drama, fiction, and film (all readings in English). Participants will, read, discuss, teach, argue, research and explore the rich literature of Ireland.

## 1st Yr. Seminar: ENLT 142X - (FYS,CL,E) Latest & Greatest: Prize Winning Fiction, Poetry and Theatre

3 cr.

Award-winning literary texts and writers of the last ten years enable students to examine success in literary and academic contexts and to practice a successful transition to the University of Scranton.

## 1st Yr. Seminar: ENLT 143X - Writing Science in Literature

3 cr.

For students interested in science and literature, this seminar surveys works in the Western tradition which engage the natural world; from Biblical and Classical, through Medieval, Renaissance, Enlightenment, nineteenth century, modern, and contemporary. Texts include scripture, philosophy, illuminated manuscripts, science, poetry, drama, verse, fiction, essays, and film.

## 1st Yr. Seminar: ENTR 100X - (FYS) Entrepreneurship

3 cr.

This course provides opportunities to develop entrepreneurial skills needed to excel in a rapidly changing world. Entrepreneurial concepts are examined within the context of Ignatian and Catholic identity. Special emphasis will be placed on student transition into college life. This seminar is designed for all students, not just business students.

## 1st Yr. Seminar: HIST 109X - (FYS,CH) The Frontier in American History

3 cr.

Since the Nineteenth century, American historians have noted the importance of the frontier in the development of the United States. This class will explore the frontier's meaning in the political, social, and economic development of the U.S. and explore the historical ramification of its closure.

## 1st Yr. Seminar: HIST 110X - (FYS) The Jesuits and American History to 1877

3 cr.

This first-year seminar explores the history of the United States from the colonial era to 1877, with a special focus on the place of the Jesuits in the history of North America.

## 1st Yr. Seminar: INTD 100X - (E,S) Energy and Society

3 cr.

This course addresses how energy is produced and used for society and the impact this production and usage has on society. The basic science of energy will be covered. Guest speakers will guide the students through discussions of the various complex human issues involved. Various elements of the course will introduce the student to the academic life, foster relationships with the faculty, using library resources, developing skills at completing projects and working in groups.

## 1st Yr. Seminar: INTD 113X - Ignatian Reflection and Practice

1 cr.

(With appropriate administrative approvals, it fulfills the First-Year Seminar General Education requirement)
This course introduces students to the Ignatian mission of the University of Scranton and guides their engagement with it, including in its intellectual, spiritual and social aspects.

## 1st Yr. Seminar: INTD 119X - Making Meaning of 9/11

3 cr.

Students will explore the ways in which we have come to understand the terrorist attacks of September 11, as well as the ways those attacks have shaped how we understand ourselves and our world. We will analyze the ways 9/11 has been and continues to be represented through multiple media and genres, e.g. architecture, commemoration, art, non-fiction, fiction, film, governmental discourse, journalism, poetry, and theatre.

## 1st Yr. Seminar: INTD 120X - (FYS,E) Science and the Society

3 cr.

A science course for non-science majors that introduces students to the scientific method through an analysis of the roles played by Jesuits, and others, in development of various scientific disciplines. This seminar emphasizes the application of a scientific approach in the problem solving process.

## 1st Yr. Seminar: INTD 122X - (S) Ignatian Citizenship and Contemporary American Politics

3 cr.

This seminar explores Ignatian humanism as a pathway for understanding citizenship in contemporary American society. It examines ancient texts as influences on Renaissance humanism and, thus, Ignatian humanism and its appreciation of civic responsibility. The concept of citizenship in American Political Science and American politics is examined using that lens.

## 1st Yr. Seminar: MATH 110X - (FYS,FYDT) Mathematics for Social Justice

3 cr.

(Prerequisites: Math Placement PT score of 12 or higher or permission of the instructor.)
This course uses math to facilitate understanding of social justice topics. The social justice themes will vary. Topics may include data exploration methods, studying income levels in the context of costs of food, home, child care, health care, education, etc., voting/social choice, fair division procedures, organ transplant distribution, financial mathematics, and sustainability.

## 1st Yr. Seminar: PCPS 122X - (FYS) Foundations of Professional Integrity

3 cr.

This course is designed to introduce first-year students to life at a Jesuit University and prepare them for academic study within professional careers. Course topics will expose students to workplace ethics and professional integrity. Students will develop an understanding of transitional issues and the Jesuit identity.

## 1st Yr. Seminar: PHIL 121X - Faith and Reason

3 cr.

This seminar will focus on reflection and the processes by which one obtains, evaluates, and forms beliefs about themselves, others, and the world around them. Faith and reason will serve as two distinct, yet closely intertwined, methods of such belief-formation without playing into the overly-simplistic dichotomy religion=faith and science=reason.

*Students who have taken PHIL 121X are not eligible to take PHIL 120.*

## 1st Yr. Seminar: PHIL 122X - In Search of Wonder

3 cr.

An introduction to philosophy via a look at key exemplars or archetypes of doing this kind of critical reflection through the centuries. Students will do take-home exams that involve applying their knowledge of each thinker to concrete contemporary situations. The aim is wonder, not memorization. *Students who have taken PHIL 122X are not eligible to take PHIL 120.*

## 1st Yr. Seminar: PHIL 123X - (FYS) Intro to Philosophy: Pursuit of Happiness

3 cr.

This course introduces the student to philosophy through the study of "happiness" and the ways in which the "pursuit of happiness" defines human beings. The course includes discussion of the relation between pleasure and happiness, friendship and happiness, education and self-development. Uses classical philosophical texts from both Asia and the West to explore the ways in which we might maximize our happiness. *Students who have taken PHIL 123X are not eligible to take PHIL 120.*

## 1st Yr. Seminar: PHIL 124X - Preparing for Democratic Citizenship

3 cr.

Although a robust economy and a strong government are necessary components of a democratic society, the lifeblood of democracy is an informed and engaged citizenry. This course explores the role citizens play in making democracy work and seeks to guide students in their development as informed and engaged citizens. *Students that have taken PHIL 124X are not eligible to take PHIL 120.*

## 1st Yr. Seminar: PHIL 125X - Thinking the City

3 cr.

This course provides an introduction to philosophy by thinking about cities, citizenship, urban planning, and city life. The "city" provides an opportunity to understand philosophy's historical roots as well as its contemporary relevance as we reflect on our experiences in Scranton and in our hometowns. *Students who have taken PHIL 125X are not eligible to take PHIL 120.*

## 1st Yr. Seminar: PHIL 127X - (FYS) Wellness and Food: An Introduction to Philosophy

3 cr.

We will cover four of the classical areas of Philosophy (viz., Metaphysics, Epistemology, Aesthetics, Ethics) exploring the interrelated themes of wellness and food understood as contributing to a foundational understanding of Ignatian ideals in our lives. We will use both classical and contemporary writers. *Student who have taken PHIL 127X are not eligible to take PHIL 120.*

## 1st Yr. Seminar: PHIL 128X - (FYS) Wellness, Wholeness and Care for the Self

3 cr.

This Freshman Seminar has been designed, at the Dean's request, for students in the Wellness program. Its theme is the health that applies to life as a whole and has an active meaning. Health is a wellness that *we do, a caring for self that includes other selves.*

*Student who have taken PHIL 128X are not eligible to take PHIL 120.*

## 1st Yr. Seminar: PHIL 130X - (FYS,P) Truth in Being

3 cr.

This course is an introduction to philosophy through the study of classical texts from ancient, medieval, modern and contemporary philosophy. It follows pursuit of truth about questions of being including the existence and nature of Self, God and World.

## 1st Yr. Seminar: T/RS 121X - The Bible: Sacred Story and Meaning

3 cr.

A survey of central texts and themes of the Bible. Focus will be on the development of biblical literacy and skills necessary to interpret biblical texts in their historical and theological context. Connections between biblical texts and the University's Ignatian mission will be accented.

## 1st Yr. Seminar: THTR 131X (FYS,CA) - Round Corners: Visual & Literary Enigmata

3 cr.

An exploration of visual and literary works that diverge from obvious literal interpretation. This course will explore these works as they relate to various styles such as Realism, Naturalism, Minimalism, Expressionism, Surrealism, Classicism, and Romanticism.

## ACC 251 - Financial Accounting I

3 cr.

(For accounting and finance majors)
A survey of accounting principles, concepts and procedures. Topics covered include financial statements, the information-processing cycle, cash, receivables, inventory costing methods, plant and equipment, intangibles, and current liabilities.

## ACC 251K - Financial Accounting I

3 cr.

(For accounting and finance majors)
An honors-level survey of accounting principles, concepts and procedures. Topics covered include financial statements, the information-processing cycle, cash, receivables, inventory costing methods, plant and equipment, intangibles, and current liabilities.

## ACC 252 - Financial Accounting II

3 cr.

(Continuation of ACC 251 for Accounting and Finance majors; Prerequisite: ACC 251)
A study of long-term liabilities, owners’ equity of corporations and partnerships, the cash-flow statement, and cost analysis and accumulation.

## ACC 252K - Financial Accounting II

3 cr.

(Continuation of ACC 251K for Accounting and Finance majors; Prerequisite ACC 251K)
An honors study of long-term liabilities, owners' equity of corporations and partnerships, the cash-flow statement, and cost analysis and accumulation.

## ACC 253 - Financial Accounting

3 cr.

(For non-accounting and non-finance majors)
A survey of the accounting cycle, basic financial statements, theory and techniques of income, asset, and liability recognition.

## ACC 253K - Financial Accounting

3 cr.

(For non-accounting and non-finance majors)
An honors-level survey of the accounting cycle, basic financial statements, theory and techniques of income, asset, and liability recognition.

## ACC 254 - Managerial Accounting

3 cr.

(Continuation of ACC 253 for non-accounting and non-finance majors; Prerequisite: ACC 253)
This course examines accounting information primarily from the perspective of a user within the organization. Topics covered include cost allocation, product costing, budgeting, profit planning, and performance evaluation.

## ACC 254K - Managerial Accounting

3 cr.

(Continuation of ACC 253K for non-accounting and non-finance majors; Prerequisite: ACC 253K)
This course examines accounting information primarily from the perspective of a user within the organization. Topics covered include cost allocation, product costing, budgeting, profit planning, and performance evaluation at the honors-level

## ACC 361 - Intermediate Accounting I

3 cr.

(Prerequisite: junior standing, ACC 252)
A comprehensive study of contemporary accounting theory, concepts and procedures and their application to the asset classifications on the balance sheet. Current pronouncements of the various accounting organizations relevant to assets will be emphasized.

## ACC 362 - Intermediate Accounting II

3 cr.

(Prerequisite: ACC 361)
Application of contemporary accounting theory to liabilities and stockholder's equity classifications of the balance sheet. Current pronouncements of accounting organizations relevant to liabilities and owners' equity accounts will be emphasized.

## ACC 363 - Federal Taxes

3 cr.

(Prerequisites: ACC 252 or ACC 254, junior standing)
An introductory course covering pertinent phases of federal income taxation. Emphasis on business transactions, preparation of individual returns, and finding the answers to federal tax questions.

## ACC 364 - (EPW) Auditing Theory

3 cr.

(Prerequisite: ACC 361)
Regulatory, legal, ethical, and technical issues related to the independent audit service. Examination of auditing standards, statistical methods and techniques involved in the examination of certain transaction cycles.

## ACC 365 - Federal Taxation of Corporations and Partnerships

3 cr.

(Prerequisite: ACC 252)
An introduction to the taxation of C and S corporations and partnerships, including analysis of the tax consequences of their formation, operation, and liquidation.

## ACC 370 - Fraud Examination

3 cr.

(Prerequisite: ACC 252 or ACC 254)
This course provides the student with an understanding of the various forms of fraud that take place within and outside of the organization. The student is exposed to the control and investigative techniques essential to the prevention and detection of these frauds.

## ACC 372 - Accounting for Electronic Business

3 cr.

(Formerly AIS 372) (Prerequisites: ACC 252 or ACC 254, junior standing)
This course will introduce students to the role of accounting in today's global business environment. Students will examine how technology has impacted the techniques of accounting and reporting. Computerized models of accounting will be used to explore the tools available to compile data for management decision and reporting. Both Internet business and traditional business transactions will be evaluated. (Credits cannot be earned for ACC 372 and EC 372)

## ACC 373 - Object Oriented Applications in Business and Accounting

3 cr.

(Formerly AIS 373) (Prerequisites: ACC 252 or ACC 254, BUS 140)
This course is an introduction to the design and analysis of computer systems utilizing an object-oriented approach. Topics include: major methodologies, methods and techniques for analysis and design, concepts and techniques for development projects, CASE tool support development work, and approaches to planning for systems implementation, evaluation, and maintenance.

## ACC 374 - Database Management Systems for Electronic Business

3 cr.

(Formerly AIS 362) (Prerequisites: ACC 252 or ACC 254)
This course deals with the use of database management systems to support electronic business. Topics include: data modeling; database design and normalization; structured query language (SQL); database application development ; integration of Web server and database server; distributed databases; data warehousing; and data mining. (Credit cannot be earned for ACC 374, BUAN 362, and EC 362)

## ACC 375 - Enterprise Accounting and Control

3 cr.

(Formerly AIS 367) (Prerequisites: ACC 252 or ACC 254, junior standing)
This course examines how accounting principles, methods, and techniques are harnessed to meet the reporting needs of an organization in an integrated management and information technology environment. It is designed to demonstrate the integration of both financial and managerial accounting procedures with the core business processes and organizational elements of an enterprise.

## ACC 460 - Advanced Accounting I

3 cr.

(Prerequisite: ACC 362)
The theories and promulgated standards of accounting related to multiple business units, including accounting for business combinations, consolidated financial statements, minority interest, and branch accounting. Also covered is governmental and nonprofit accounting.

## ACC 461 - Cost Accounting

3 cr.

(Prerequisites: ACC 252; junior standing)
Theories, techniques and procedures in cost accumulation, reporting and control, including such topics as job-order costs, process costs, by-products and joint-products costing, and standard cost and variance analysis.

## ACC 462 - Advanced Managerial Accounting

3 cr.

(Prerequisite: ACC 461)
Accounting techniques as control devices in business with emphasis on the use of accounting data in business decisions. Topics to include budgeting and profit planning, cost-volume-profit analysis and direct costing.

## ACC 463 - (EPW) Financial Statement Analysis & Research

3 cr.

(Prerequisite: ACC 362)
This course provides the student with the skills necessary to perform thorough financial research to accurately assess an organization's liquidity, solvency and profitability and valuation positions. In developing an understanding of the various analytical measures that are used for this purpose, significant use is made of real-life companies.

## ACC 465 - Accounting Communications

3 cr.

(Prerequisite: ACC 361, ACC 363, ACC 364 and ACC 461 or equivalent)
This course is designed to enhance the students' communication skills as applied to accounting-related situations. Course activities include presentations, written assignments and projects in various areas of accounting such as financial reporting, cost management, business evaluation and assurance services.

## ACC 470 - Law for Accountants

3 cr.

(Prerequisite: MGT 251)
A study of the law of contracts, sales, commercial paper, secured transactions, rights of debtors and creditors, and bankruptcy.

## ACC 471 - Management Auditing

3 cr.

(Prerequisite: ACC 362)
An in-depth examination of the accountant in the manager's position. Includes administrative effectiveness and efficiency as provided through sound internal controls, and design and implementation of monitoring systems within the organization to promote better cost-benefit decisions.

## ACC 472 - Advanced Accounting II

3 cr.

(Prerequisite: ACC 362)
A study of the theories and promulgated standards of accounting related to international operations, partnerships, estates and trusts, installment sales, consignments, SEC reporting, and interim financial reporting.

## ACC 473 - Advanced Auditing

3 cr.

(Prerequisite: ACC 364)
An examination of statistical analysis in making audit judgments; internal control and auditing issues relating to EDP systems; risk assessment and testing for certain transaction cycles; and other attestation services and reports.

## ACC 474 - Accounting Information Systems

3 cr.

(Prerequisite: ACC 252)
The design and application of accounting systems in both the manual and automated environments. Analysis of information's accumulation and use patterns in organizations with a focus on providing useful and timely information. Extensive computer usage of professional business software.

## ACC 476 - Electronic Business Information Systems Security and Ethics

3 cr.

(Formerly AIS 381) (Prerequisite: ACC 474 or OIM 471)
This course is designed to provide students with an understanding of the technical, managerial, legal and ethical issues of information security. Topics include: Web server and client security; secure transactions and payments; information security; digital certificates and practices; legal, moral and ethical issues; intellectual property and patents; governmental regulations and policies; and emerging technologies.

## ACC 477 - Advanced Auditing Issues: Information Systems Auditing

3 cr.

(Formerly AIS 423) (Prerequisites: ACC 364 and ACC 474)
The objective of this course is to develop competence in information systems auditing (the audit and control of computer-based information systems) by focusing on the design and implementation of audit approaches in automated settings. Topics include: information systems (IS) audits, IS controls, risk assessment, and computer-assisted audit techniques (CAATS).

## ACC 479 - Business Applications of Communication Networks

3 cr.

(Formerly AIS 483) (Prerequisite: ACC 474)
Use of computer and telecommunication networks to achieve organizational goals. Topics include data communications; planning and design of communication networks; data integrity, independence and security, client-server computing; global communication; the Internet; applications of telecommunication networks and current issues and future trends. (Credit cannot be earned for ACC 479 and OIM 473)

## ACC 490 - Accounting Analytics and Visualization

3 cr.

(Prerequisite: ACC 474)
Students will design and apply analytics and visualization techniques and software in business, accounting, and auditing environments including: Agile Project Management, Prototyping, Journey Mapping, Bid Data, Data Acquisition, Data Modeling and Architecture, and Data Tools.

## ACC 543 - Fraud Behavior

3 cr.

This course introduces students to the theories, models, and practices used to assess, prevent, and detect business fraud behavior at the C-Suite level. Topics will include: the impact of fraud on society, business, and the individual; pressures and rationalization that enable fraud behavior; and techniques used to avoid fraud pitfalls. Not offered to student who completed BUS 250.

## ACC/IB 475 - International Accounting

3 cr.

(Prerequisites: ACC 252 or ACC 254, ECO/IB 351)
This course is designed for both accounting and non-accounting majors with an interest in global accounting issues. The environmental influences on accounting development, the reporting standards for selected countries, financial statement analysis, and taxation and managerial accounting issues for multinational business entities are examined.

## ARAB 101 - (CF) Beginning Arabic

3 cr.

Designed for non–Arabic-speaking students, this course studies modern standard Arabic and aims to enable students to use and properly pronounce simple Arabic words and to listen, speak, read and write simple sentences. This course also offers a preliminary approach to Arabic grammar. *Includes activities inside and/or outside the classroom that involve Language Learning Center (language lab) resources.*

## ARAB 102 - (CF) Beginning Arabic

3 cr.

(Prerequisite: ARAB 101 is normally the prerequisite to 102)
Designed for non–Arabic-speaking students, this course studies modern standard Arabic and aims to enable students to use and properly pronounce simple Arabic words and to listen, speak, read and write simple sentences. This course also offers a preliminary approach to Arabic grammar. *Includes activities inside and/or outside the classroom that involve Language Learning Center (language lab) resources.*

## ARAB 211 - (CF,D) Intermediate Arabic

3 cr.

(Prerequisites: ARAB 101-102 or equivalent, as determined by instructor)

A continuation of elementary Arabic. Students will acquire more vocabulary and grammar and engage in more speaking, reading and writing. *Includes activities inside and/or outside the classroom that involve Language Learning Center (language lab) resources. Completion of ARAB 212 satisfies one semester of the cultural diversity requirements.*

## ARAB 212 - (CF,D) Intermediate Arabic

3 cr.

(Prerequisites: ARAB 101-102 or equivalent, as determined by instructor; ARAB 211 or its equivalent is normally the prerequisite to 212)

A continuation of elementary Arabic. Students will acquire more vocabulary and grammar and engage in more speaking, reading and writing. *Includes activities inside and/or outside the classroom that involve Language Learning Center (language lab) resources. Completion of ARAB 212 satisfies one semester of the cultural diversity requirements.*

## ARAB 311 - (CF,D) Advanced Arabic

3 cr.

(Prerequisites: ARAB 211 -212 or equivalent, as determined by instructor)
Advanced grammar, reading, conversation and composition in standard Arabic. This third-year course emphasizes the development of listening, speaking, reading and writing skills in interactive settings. *Includes activities inside and/or outside the classroom that involve Language Learning Center (language lab) resources.*

## ARAB 312 - (CF,D) Advanced Arabic

3 cr.

(Prerequisites: ARAB 211-212 or equivalent, as determined by instructor; ARAB 311 or its equivalent is normally the prerequisite to 312)
Advanced grammar, reading, conversation and composition in standard Arabic. This third-year course emphasizes the development of listening, speaking, reading and writing skills in interactive settings. *Includes activities inside and/or outside the classroom that involve Language Learning Center (language lab) resources.*

## ART 110 - Introduction to Art

3 cr.

This foundations course (in lecture, studio and ANGEL format) offers students humanities and writing credits combined with basic hands-on experience in the visual arts. Students will analyze "ways of seeing" by analyzing Egyptian, Roman, Medieval, Renaissance, Impressionist, Cubist, Surrealist and Neoexpressionist art; and, with concepts and techniques learned, produce art.

## ART 112 - Color and Design

3 cr.

A foundation course introducing the elements and principles of two- dimensional design. Various materials are used to explore the organization of space and basic color theory.

## ART 114 - Three-Dimensional Design

3 cr.

A foundation course investigating basic materials and approaches in the creation of three-dimensional form. Hands-on involvement with diverse media, techniques and tools of the sculptor's craft is emphasized.

## ART 116 - Basic Drawing

3 cr.

A foundation course designed to develop skills in basic drawing and perception. Various media are employed in exercises involving the use of line and shading, shape and space, and design and composition.

## ART 120 - Painting I

3 cr.

(Prerequisite: ART 112, ART 116 or equivalent)
A first-level painting course concerned with fundamentals such as composition, observation, basic color theory and techniques. The class includes one museum trip and regular group critiques.

## ART 130 - Introduction to Digital Photography

3 cr.

This introductory course provides a solid theoretical foundation in photography, and offers exploration of technical tools used by professionals in the field. Additionally, the course explores the history of photography with focus on contemporary trends in the medium. Through lectures, technical and aesthetic exercises, and class discussion, students will develop their own visual language and hone their creative skills.

## ART 182 - Independent Study Course

3 cr.

These courses are designed to address the career objectives of students who intend to pursue studies in studio art, or in disciplines for which background in studio art is necessary. Arranged with permission of the director.

## ART 183 - Independent Study Course

3 cr.

These courses are designed to address the career objectives of students who intend to pursue studies in studio art, or in disciplines for which background in studio art is necessary. Arranged with permission of the director.

## ART 184 - Special Topics

3 cr.

Selected topics in studio art vary on the basis of student/faculty interest and available resources Topics may include, but are not limited to: Printmaking, Painting II, Advanced Drawing, Pastel and Watercolor.

## ART 322 - Two-Dimensional Computer Animation Techniques

3 cr.

(Prerequisites: IT 120 or permission of instructor)
A course in the creation of computer animation, with an emphasis on Web-based implementation. This course introduces techniques for computer animation such as key-framing, motion capture, layers, guides, tweening. The techniques will be implemented using the industry-standard software, Flash. The course also includes an overview of story-telling, story-boarding and scene composition. A major project will be required. (Credit cannot be earned for ART 322 and MIT 322 )

## ART 324 - 3D Computer-generated Animation/Content

3 cr.

A course that addresses three-dimensional graphic content creation and manipulation. Students develop 3D content using a number of industry- standard software packages. Topics include mode/texture development, animation, construction of 3D environments, rendering and advanced topics. (Credit cannot be earned for both ART 324 and MIT 324 .)

## ARTH 101 - (CA) History of Art I: The Ancient World

3 cr.

A survey of the art and architecture of prehistoric Europe through Ancient Rome, 30,000 BC to 400 AD. Art of the ancient Near East, Egypt, Greece and Rome is studied in historical contexts of idea, style, and technique.

## ARTH 102 - (CA) History of World Art II: Forming a Christian Heritage

3 cr.

A survey of the art and architecture of early Christianity through the Reformation, 4$^{th}$ - 17$^{th}$ centuries. Art of early Christianity, the Byzantine Empire, Romanesque and Gothic Europe, the Renaissance and Counter Reformation Europe will be studied in historical contexts of idea, style and technique.

## ARTH 103 - (CA) History of Art III: Global Visual Cultures

3 cr.

A survey of the art and architecture of the 18$^{th}$ through 21$^{st}$ century. Within contexts of idea, style and technique, art of Neoclassicism/Romanticism, Realism and Impressionism will be studied, followed by analysis of great movements of the twentieth-century: Expressionism, Cubism, Neo-Realism, Abstraction, etc. The course concludes with contemporary art of the 21$^{st}$ century.

## ARTH 108 - Asian Art and Cultures

3 cr.

Introducing the art of India, Japan and China (10,000 BC - 1700 AD), this course studies art in contexts of religion, politics, gender, literature and history. Hands-on learning of Chinese brush painting, Japanese woodblock printing and 6$^{th}$ century Indian miniature painting.

## ARTH 113 - (CA) Native American Art

3 cr.

Students will study the history, society, religious beliefs and craft traditions of the pre-colonial peoples of the United States, as well as contemporary Native American artists. The course entails group work, a collaborative final project, and a field trip to the Mashantucket Pequot Museum in Connecticut or to the National Museum of the American Indian in Washington, D.C.

## ARTH 114 - (CA) History of Architecture

3 cr.

A general survey of architectural history from the prehistoric through the modern era, focusing on architectural style, the built environment, and the rituals which condition the use and design of structures and urban spaces. The course features walking tours of Philadelphia and the city of Scranton as well as guest lectures by area architects.

## ARTH 115 - Art of the Ancient World

3 cr.

A survey of the art and architecture produced between 3000 and 1250 B.C. The course opens in the painted caves of Prehistoric Europe, and continues through the contemporaneous civilizations of the Ancient Near East (Sumer, Babylon, Assyria, Persia) and Egypt.

## ARTH 116 - (CA) Art of Greece and Rome

3 cr.

The course begins in the Aegean with the Minoan and Mycenaean cultures celebrated by Homer; surveys the art of classical Greece; and continues with the art of the Etruscans in ancient Italy. The course concludes with Roman art and architecture (3rd c. B.C. to 5th c.

## ARTH 117 - Early Christian and Byzantine Art

3 cr.

The art and architecture produced by the first Christians borrowed much from the forms and ideas of Roman art. The course surveys art produced in Rome, Ravenna, Milan, Greece and Constantinople, 200-1400 A.D. Emphasis will be placed on the origin and symbolism of Christian imagery and architecture.

## ARTH 118 - Medieval Art: Romanesque and Gothic

3 cr.

A survey of art and architecture in Western Europe, 1100-1400. Medieval architecture, manuscripts, paintings, and decorative arts will be presented as mirrors of medieval thought and spirituality.

## ARTH 119 - (D) African Cultures and Civilizations

3 cr.

The course focuses on African civilizations and cultures through African cultural productions: myths, literature, music, dance and cinema.

## ARTH 205 - The Icon in Russian and East European

3 cr.

This course focuses on theology, image and artistic style in the making of the icon in Russia and East Europe. The icon will be studied from medieval through modern times. A field trip to St. Tikhan's Monastery and local churches are included.

## ARTH 210 - (CA,D) Women in the Visual Arts

3 cr.

This cross-disciplinary course presents selected topics on women in the visual arts, including varied ways of thinking and writing about women, art and culture. Topics include a survey of women in art, being female in the Renaissance, contemporary women artists, female artists in Latin America, and 19th-century women artists. A field trip to the Brooklyn Museum or National Museum for Women in the Arts is included.

## ARTH 211 - (D) African Art and Aesthetics

3 cr.

This course focuses on African art and theory (beauty, functionality, aesthetics). In studying artifacts produced on the African continent, students will question and identify criteria for determining objects as "art." African artistic influences on Western Art will be explored through a field trip to the Metropolitan Museum of Art.

## ARTH 212 - (CA,D) African American Art

3 cr.

This course considers African Americans in the visual arts, including varied ways of thinking and writing about African American art and culture. Topics include slavery and emancipation, the Harlem renaissance, the Civil Rights movement, African American women artists, and collecting African American art.

## ARTH 213 - (CA,D) American Art

3 cr.

A survey of American architecture, painting and sculpture from the earliest exploration days. The course will cover art of Native America, the colonial period, the Civil War era and the 20th century.

## ARTH 214 - Renaissance Art in Italy, 1200-1480

3 cr.

As a survey of the art produced in Italy, 1200-1480, the course examines the production of art as it relates to society and culture. From St. Francis' Assisi to Pope Sixtus IV's Rome, and from Giotto to Botticelli, painting, sculpture, and architecture will be studied in contexts of history, gender, technology, intellectual life, theology and philosophy.

## ARTH 215 - Renaissance Art in Italy, 1480-1620

3 cr.

This course continues with a survey of art and society in Italy, 1480-1620. The papacy, during the 15th century, brings Michelangelo and Raphael to Rome, which remains a cultural capital for artists through the 17th century. Artists working in 16th century Florence, in the wake of Michelangelo, introduce a style that flourishes brightly, but briefly: Mannerism.

## ARTH 216 - (CA) Michelangelo and His World

3 cr.

This course investigates the painting, sculpture, and architecture of Michelangelo. By considering the artistic traditions to which he fell heir as a Florentine artist, the traditional and the innovative aspects of Michelangelo's work will be assessed. Readings from his letters and poetry and from 16th-century biographies will furnish a rich context for the appreciation of his work and for understanding the society to which he belonged.

## ARTH 217 - Leonardo Da Vinci

3 cr.

Artist, scientist, author and free-thinker, Leonardo left few paintings, many drawings, and copious notes attesting the wide range of his intellectual curiosity. This course focuses both on the 15th-century world to which the artist belonged and on his many writings in order to measure Leonardo's greatness as prodigy and visionary.

## ARTH 218 - The Age of Rembrandt

3 cr.

A survey of the painting, sculpture, and architecture produced in Europe between 1600 and 1750. The course opens in Bernini's Rome of the Counter-Reformation and concludes in France at the royal courts of Louis XIV and XV.

## ARTH 219 - The Renaissance in Northern Europe

3 cr.

(Formerly ARTH 311)
Art produced in northern Europe (France, Germany, Belgium, and the Netherlands) differs remarkably from the art produced in Italy by Botticelli and Michelangelo. This course surveys painting north of the Alps by such artists as Jan van Eyck, Rogier van der Weyden, Hieronymus Bosch, and Albrecht Dürer.

## ARTH 220 - (D) History of Photography

3 cr.

The course explores the historical development of photography and considers the medium's aesthetic components as well as the theoretical and representational issues it raises.

## ARTH 221 - (CA,D) Nineteenth-Century Art

3 cr.

An exploration of painting and sculpture from Neoclassicism to Symbolism. Special emphasis will be given to works by J.L. David, Goya, Delacroix, Courbet, Manet, Morisot, Rodin, and Van Gogh. In addition to developing skills of visual analysis, the course will focus on the interaction between artist and society.

## ARTH 222 - Impressionism and Post-Impressionism

3 cr.

Impressionism, an artistic movement linked today with leisure and pleasure, developed out of conflict and challenged many standard European art practices. The course investigates the artistic goals and strategies of Manet, Monet, Degas, Renoir, Morisot, Cassatt and Pissarro and considers how their works respond to important social issues of the day. Paintings by the Postimpressionists Cézanne, Seurat, Van Gogh and Gauguin will be examined as reactions to the aims of Impressionism.

## ARTH 225 - (CA,D) Art of the Twentieth Century

3 cr.

Beginning with pre- World War I works by Matisse and Picasso, this course surveys the painting, sculpture, architecture and photography of the period known as modernism, ending with an exploration of the contemporary phenomenon of postmodernism. Through examination of both artworks and texts by artists and critics, considerations of style and technique will be integrated with an analysis of historical context. A field trip to museums and galleries in New York City is included.

## ARTH 227 - (CA,D) Matisse and Picasso

3 cr.

This course examines the works of these two influential modern artists by considering the aesthetic and historical context of their paintings, sculptures, prints, and writings on art. A field trip to the Barnes Collection, Philadelphia, is included.

## ARTH 295 - (D,CA) Travel Seminar

1.5 cr.

Short study trips to provide students with the opportunity to study works of painting, architecture, and sculpture on site. Trips will be designed as themes: the Art Museums of London and Paris, The Bible in Text and Image (Italy), Renaissance Villas and Palaces, Michelangelo, etc.

## ARTH 296 - (CA,D) Art, Ignatius and Rome

3 cr.

This 3-week travel seminar explores the Society of Jesus in Counter-Reformation Rome through art produced from Paleo-Christian times through the 17th century. In the footsteps of Ignatius of Loyola, students examine the intertwined histories of Rome and Ignatius, experiencing growth of the order chronologically as did the saint and his companions.

## ARTH 310 - (CA) Heaven, Hell, Apocalypse

3 cr.

This cross-disciplinary course studies visual depictions of Heaven and Hell in Christian, Islamic, Jewish, Egyptian, Ancient Near-Eastern and Greco-Roman cultures, 3000 BC-1600 AD. Apocalyptic imagery based upon the biblical Book of Revelation is studied in historic, artistic, and theological contexts; with literary texts (e.g. Epic of Gilgamesh, Book of the Dead, Aeneid, Divina Commedia) supplying thought and image to artists.

## ARTH 311 - (D,CA) Medieval and Renaissance Women

3 cr.

This topics course explores various ways of looking at Italian medieval and Renaissance women in text and image. Primary texts by Hildegard von Bingen, Giovanni Boccaccio, Christine de Pisan, Leonbattista Alberti and Baldassare Castiglione will be studied for the light they shed on the notion and nature of woman. Great emphasis will be placed on in-class analysis of images, and a field trip to the Italian Renaissance collection of the Metropolitan Museum, NYC, will enable students to apply skills of visual analysis.

## ARTH 312 - Jesuit Spirituality & Art

3 cr.

This course explores art inspired, commissioned and produced by the Society of Jesus, 1540 through 1840, in both the Old and New Worlds and among Asian cultures. Texts by Jerome Nadal, Louis Richeome and Ignatius' Spiritual Exercises will be studied as guides to thought and interpretation. (Students who take ARTH 312 for credit may not take ARTH 296 for credit.)

## ARTH 313 - (D) Art of Islam

3 cr.

(Prerequisite: None, but previous course in art history desirable)
A survey of Islamic art and architecture from Mongol invasion to the beginnings of European colonization by the West (13th-19th centuries). Politics, patronage, religion and literature will provide a rich context for the interpretation of Islamic art, as will a field trip to the Metropolitan Museum of Art.

## ARTH 316 - Painted Chambers of the Renaissance

3 cr.

Renaissance images were made, commissioned and viewed by particular audiences to whom the work of art communicated and reinforced contemporary beliefs and values. This course explores the meaning and purpose of murals produced for public and private use in homes, churches and civic structures. Contemporary literature of the period will also be studied.

## ARTH 380 - Museum Methods (Internship)

1-3 cr.

(Prerequisites: ARTH 101, ARTH 102 and two additional ARTH courses)
Offered in cooperation with the local art venues, this course introduces students to ideologies of arts administration and methods of curatorial research and procedure. On-site study is supervised by Art History faculty and museum professionals.

## ARTH 484 - Special Topics

3 cr.

(Prerequisites: ARTH 101, ARTH 102 and two additional ARTH courses)
Selected topics will vary from year to year on the basis of student/faculty interest and available media resources. Topics may include Art of the Far East, History of Printmaking, etc. Discrete styles and individual artists may also be the focus of a selected topics course.

## ASL 101 - (CF,D) American Sign Language

3 cr.

(ASL 101 is normally the prerequisite to ASL 102)
Introduces the fundamentals of ASL, including its history and recognition as a language. Development of expressive and receptive conversational skills. Students will gain insight into deaf culture through the study of ASL in the classroom and by interacting with ASL users. Taught by immersion; voice off.

## ASL 102 - (CF) American Sign Language

3 cr.

(ASL 101 is normally the prerequisite to 102)
Introduces the fundamentals of ASL, including its history and recognition as a language. Development of expressive and receptive conversational skills. Students will gain insight into deaf culture through the study of ASL in the classroom and by interacting with ASL users. Taught by immersion; voice off.

## BCMB 290 - Seminar

1 cr.

Instruction in seminar format and oral presentation; student presentations on current topics in molecular life sciences, relevant to basic or applied research findings from the primary scientific literature. Required twice. Spring only.

## BCMB 440 - Proteomics

3 cr.

(Prerequisites: BIOL 361 or BIOL 362 and CHEM 351 or CHEM 451 or permission of instructor)
Study of the post-genomic era, including protein identification strategies using two-dimensional gel electrophoresis, mass spectrometry and use of protein databases. The course also covers the ways in which proteomic study continues to impact disease diagnosis, cancer research and drug design.

## BCMB 464 - Molecular Biology of Cancer

3 cr.

Discussion of biological and molecular features of oncogenesis and clinical cancer with details of specific molecular events of carcinogenesis, metastasis, and cellular transduction with a review of treatment modalities and prevention protocols for clinically important human cancers. (Students cannot earn credits for both BCMB 464 and BIOL 464.)

## BCMB 490 - Biochemistry, Cell and Molecular Biology Capstone

3 cr.

(Prerequisites: BIOL 362 and CHEM 351 or CHEM 451)
Fundamentals of biochemistry, cell and molecular biology will be used to explore various themes in molecular life science. Students are responsible for researching advanced topics and presenting lecture/discussions or case studies to the class.

## BCMB 493 - Undergraduate Research

3 cr.

Individual problems for advanced students with sufficient background (as determined by mentor) in the biological and/or chemical sciences.

## BIOL 100 - (E) Modern Concepts of Human Biology

3 cr.

Exploration of the practical impact that modern biological concepts have on our lives. Topics include cell function, genetics, AIDS and other infectious diseases, cancer and end of life issues. Provides a framework for making informed ethical decisions regarding pertinent biological issues. Three hours lecture. Fall only.

## BIOL 101 - (E) Introduction to Biological Science

3 cr.

Introduction to fundamental concepts, principles and theories of modern biology. Discussion and application of the scientific method in discovery and learning, discussion of experimental and statistical techniques, examination of the historical and cultural fabric of biological science, and discussion of the impact of biological research and development on modern society. Three hours lecture.

## BIOL 102 - (E) Organisms, Evolution and Environment

3 cr.

An introduction to the biology of organisms and their relationship to their environment. Topics covered include the structure and function of living things, adaptation, genetics, and evolution.

## BIOL 104 - (E) Anatomy, Physiology and Health

3 cr.

A systems approach to understanding the components of the human body and their functions in health and wellness. Provides an introduction to body systems and how they are impacted by genetics, the environment, and personal choices. Topics include structural and functional basis for understanding cardiovascular disease, osteoporosis, stress, metabolism and weight management, gastrointestinal disorders, and other health-related topics.

## BIOL 105 - (E) Biodiversity

3 cr.

An examination of the variety of animal and plant species, especially in the two most diverse ecosystems: the coral reef and the tropical rain forest. The foundations of biological diversity will be studied: ecology, systematics, evolution and biogeography. Current topics will be discussed, such as deforestation, human population growth, endangered species and global warming. Three hours lecture.

## BIOL 108 - (E) History of Life on Earth

3 cr.

Sequence of appearance of life on earth based on the geological record. Topics include the origin of life on earth, patterns and processes of the fossil record, and an introduction to the diversity of life, past and present. Three hours lecture.

## BIOL 110 -111 - (E) Human Anatomy and Physiology

8 cr.

(Requires concurrent enrollment in lecture and lab)
A general study of the anatomy and physiology of the human organism, emphasizing the body's various coordinated functions from the cellular level to integrated organ systems. Three hours lecture, two hours lab each semester.

## BIOL 115 - (E) Biology of Social Behavior

3 cr.

Biological basis of social behavior in animals and humans. Lectures and class discussions on current topics relating animal behaviors to human behaviors. Topics will include altruism, sexual selection, mate choice, cooperation, aggression, parenting and cognition.

## BIOL 141 - (E) (FYOC, FYDT Lab only) General Biology

4.5 cr.

(Requires concurrent enrollment in lecture and lab)
A comprehensive study of the nature of living organisms, both plant and animal, their structure, function, development and relationships, including the problems of development, heredity and evolution. Three hours lecture, three hours lab each semester.

## BIOL 142 - (E) (FYOC, FYDT Lab only) General Biology

4.5 cr.

(Requires concurrent enrollment in lecture and lab)
A comprehensive study of the nature of living organisms, both plant and animal, their structure, function, development and relationships, including the problems of development, heredity and evolution. Three hours lecture, three hours lab each semester.

## BIOL 195 - (E) Tropical Biology

3 cr.

Study of tropical communities with emphasis on the coral reef. Introduction to a variety of other tropical areas, such as sandy beaches, turtle grass beds, mangrove swamps, tide pools, rocky shores, and rain forests. Approximately two weeks will be spent at a biological station in the American tropics. Swimming proficiency required. Intersession only.

## BIOL 202 - (E) The ABC's of Genetics

3 cr.

Heredity for the non-science major, with emphasis on the human. Provides the background necessary for the non-scientist to understand his/her own hereditary background and to have informed opinions about societal issues related to genetics. Includes Mendelian, molecular, and population genetics, evolution, genetic diseases, genetic engineering, etc. Three hours lecture.

## BIOL 204 - (E,D) Environmental Issues in Latin America

3 cr.

Survey of the biogeography and biomes of Latin America, the current challenges to these environments, and programs aimed at achieving sustainability in the region.

## BIOL 205 - (E) Human Sexuality and Reproduction

3 cr.

A study of the biology and evolution of sexual function, reproduction and behavior in humans; including discussion of reproductive health issues, historical and social aspects, and consequences for human population growth.

## BIOL 210 - Introductory Medical Microbiology

3 cr.

(Pre- or co-requisites: BIOL 110 -111, CHEM 110-111; requires concurrent enrollment in lecture and lab)
Fundamentals of microbiology, including structure, function, identification, pathogenesis, epidemiology and control of microorganisms with emphasis on human pathogens. Two hours lecture, two hours lab. Offered in the fall.

## BIOL 241 - Comparative Vertebrate Anatomy (S)

5 cr.

(Prerequisites: BIOL 141- BIOL 142; requires concurrent enrollment in lecture and lab)
Study of the structure and phylogeny of vertebrates and vertebrate organ-systems, emphasizing and comparing vertebrate structure in relation to function. Amphioxus, sea lamprey, shark, perch, *Necturus*, snake, pigeon and cat are subjected to detailed laboratory study. Three hours lecture, four hours lab. Fall only.

## BIOL 245 - (EPW: lab only) General Physiology (S)

4.5 cr.

(Prerequisites: BIOL 110 -111 or BIOL 141-BIOL 142 and CHEM 112-113; requires concurrent enrollment in lecture and lab)
Physiological processes underlying functioning of the animal organism. Study of irritability, excitation, conduction, contractility, cellular physiology, and functions of mammalian organ-systems. Three hours lecture, three hours lab.

## BIOL 250 - Microbiology (MC)

5 cr.

(Prerequisites: BIOL 141-BIOL 142, CHEM 112-113; requires concurrent enrollment in lecture and lab)
Structure, function, growth, reproduction, heredity and relationships of bacteria, yeasts, molds, viruses; a brief survey of pathogens, life cycles of parasitic microzoa; introduction to disease and immunology. Three hours lecture, four hours lab; not open to Nursing majors.

## BIOL 255 - Animal Nutrition and Metabolism (S)

3 cr.

(Prerequisites: BIOL 141-BIOL 142, concurrent enrollment in CHEM 233, if not already successfully completed)
A survey of concepts and disciplines within the nutritional sciences. Lectures and discussion address basic sciences, biological factors, and current controversies including physiological systems directly and indirectly influencing nutrition and metabolism, nutrients and their metabolism, energy balance, food technology, and agribusiness. Spring semester.

## BIOL 260 - Genetics (MC)

4.5 cr.

(Prerequisites: BIOL 141-BIOL 142; lab is optional)
Mendelian, cyto-, population and evolutionary, and basic molecular genetics; emphasis on eucaryotes. Three hours lecture, three hours lab.

## BIOL 271 - Entomology

3 cr.

(Prerequisites: BIOL 141/BIOL 142; Concurrent enrollment in Lecture and Laboratory required)
A general overview of insects and their importance in human health. Topics include ecology of insects, human diseases vectored by insects/caused by insects, insect behavior, medical and veterinary entomology, the identification of the major orders of insects, insect control and environmental factors influencing insect diversity. (Concurrent enrollment in laboratory is required.)

## BIOL 271L - Entomology Lab

1.5 cr.

(Prerequisites: BIOL 141/BIOL 142; Concurrent enrollment in Lecture and Laboratory required.)
In this laboratory you will learn the fundamentals of insect collecting and curating. This will be an intensive laboratory experience requiring the collection of insects. You will make an insect collection and participate in laboratory field trips to learn the orders and families of insect.

## BIOL 272 - Invertebrate Biology (S)

5 cr.

(Prerequisites: BIOL 141-BIOL 142; requires concurrent enrollment in lecture and lab)
Structure and function of the major groups of invertebrates with emphasis on their evolutionary relationships. Labs focus on the diversity of invertebrate forms and include field trips. Three hours lecture, three hours lab. Fall, odd years.

## BIOL 273 - Marine Ecology (MO)

3 cr.

(Prerequisites: BIOL 141-BIOL 142)
Diversity of marine habitats and of the organisms that inhabit them. Lectures and discussion address the physical and biological factors that influence the distribution and ecology of organisms in the various marine environments, including intertidal, estuarine, benthic, coral reef, and open ocean communities. The effects of humans on the sea will be assessed. Three hours lecture.

## BIOL 274 - Conservation Biology (MO)

3 cr.

Conservation biology is a multidisciplinary field that seeks to identify, understand and counter threats to the earth's biodiversity. This course will provide students with an understanding of conservation-related issues ranging from recognition of threats to biodiversity to preserve selection, design and management. Three hours lecture. Spring, odd years.

## BIOL 295 - (E,D) Philippines Organisms and Ecosystems (MO)

3 cr.

This course focuses on field studies of abiotic factors, flora and fauna, interrelationships and indigenous cultures in different tropical ecosystems of the Philippines. The course involves a three-week trip (extra funds required), with local excursions to unique tropical rainforests, coral reefs, mangroves and/or volcanoes. Enrollment limited. Intersession only.

## BIOL 342 - Comparative Biomechanics (S)

4 cr.

(Prerequisite: BIOL 241, BIOL 245, BIOL 272, BIOL 273, BIOL 345, BIOL 349 or BIOL 374)
The application of basic principles from physics and mechanical engineering to understand how organisms work. Integrated lectures, labs, and discussions explore the limitations and opportunities the physical world provides to organisms. Topics vary but may include how flies fly, how bones break, and why mucus is so sticky.

## BIOL 344 - Principles of Immunology (MC)

4.5 cr.

(Prerequisite: BIOL 250 strongly recommended for BIOL 344 lecture, required for optional 344 lab)
The basic molecular, cellular and organismal aspects of the immune response, emphasizing chemical and functional bases of antigens and immunoglobulins, cellular and humoral response, tolerance, immune deficiency, hypersensitivity, autoimmunity, blood groups, transplantation. Three hours lecture, three hours lab. Spring only.

## BIOL 345 - Comparative Animal Physiology (S)

3 cr.

(Prerequisite: BIOL 245)
The physiological principles involved in adaptations of animals to their environment from a comparative viewpoint; osmotic control, temperature regulation, nerve and muscle physiology, sensory perception, etc. Three hours lecture.

## BIOL 346 - Endocrinology and Reproduction (S)

3 cr.

(Prerequisite: BIOL 245)
The mammalian endocrine system; emphasis on molecular mechanisms of hormone action, feedback control of hormone production, integration with other physiological systems, and reproductive endocrinology. Three hours lecture. Spring only.

## BIOL 347 - Exercise Physiology (S)

3 cr.

(Prerequisite: BIOL 245)
Study of anatomical and physiological effects of exercise, centering around control of physical performance by capacity to generate energy through aerobic and anaerobic pathways; includes effects of heredity, age, nutrition, training and environment on performance. Emphasizes the multidimensional role of exercise in weight control, cardiovascular fitness, stress management, fatigue, strength, etc. Three hours lecture/demonstration. Spring, odd years.

## BIOL 348 - Functional Neuroanatomy (S)

3 cr.

(Prerequisite: for neuroscience majors, PSYC 231)
Study of the organization and function of the neuron, neural circuits, and the major sensory and motor components of the central nervous system; bioelectric phenomena, synaptic transmission; the neural basis for higher functions such as cognition, memory, and learning. (Credit cannot be earned for BIOL 348 and NEUR 348.)

## BIOL 349 - Plant Physiology (S)

5 cr.

(Prerequisite: BIOL 101 or BIOL 141 or permission of instructor; lab is optional)
Functional anatomy and physiology of plants, including structure, photosynthesis, respiration, mineral nutrition, water relations, productivity, growth and differentiation, transport, stress physiology, and energy flow. Lab is writing-intensive (W). Three hours lecture, three hours lab. Spring, odd years.

## BIOL 350 - (EPW: lab only) Cellular Biology (MC)

5 cr.

(Prerequisites: BIOL 141 - BIOL 142; requires concurrent enrollment in lecture and lab)
Study of structure and function in eukaryotic cells. Emphasis on biomolecules, cell organelles, cell motility, signaling, and cell physiology. The cellular basis of human physiology and disease will also be discussed. Labs focus on experimental studies of cellular structure and function using techniques of modern cell biology. Lab fulfills a writing-intensive (W) requirement. Three hours lecture, three hours lab.

## BIOL 351 - Developmental Biology (S)

5 cr.

(Prerequisites: BIOL 141 - BIOL 142; requires concurrent enrollment in lecture and lab)
Development of vertebrates and invertebrates from gametogenesis through organogenesis. Emphasis on cellular and molecular mechanisms involved in differentiation, morphogenesis, and determination of the body plan. Labs focus on experimentation with living, developing organisms. Three hours lecture, three hours lab. Spring only.

## BIOL 352 - Histology (S)

5 cr.

(Prerequisites: BIOL 141 - BIOL 142; BIOL 241 strongly recommended; requires concurrent enrollment in lecture and lab)
Microscopic structure and function of the four basic vertebrate tissues. Emphasis will be placed on mammalian tissues. Lectures include historical, theoretical and practical perspectives. Laboratories include examination of tissues through the use of loan sets of slides as well as demonstrations and exercises in basic preparation of tissues for microscopic examination. Three hours lecture, four hours lab. Fall only.

## BIOL 354 - Special Histology (S)

5 cr.

(Prerequisites: CHEM 232 - CHEM 233, BIOL 352; requires concurrent enrollment in lecture and lab)
Microscopic recognition and functional correlations of the major vertebrate organ systems. Enrollment is limited to preserve informal and flexible working conditions appropriate to advanced histological work. This course is customized to the participants' needs. Options include in-depth training in techniques or in-depth analysis of a particular organ system. Two hours lecture, five hours lab. Spring only.

## BIOL 357 - Developmental Neuroscience (S)

4 cr.

(Prerequisites: One of the following: NEUR 330, BIOL 241L, BIOL 245L, BIOL 350L, BIOL 351L, BIOL 361L)
Study of the embryonic and regenerative development of the nervous system in metazoans. Topics include brain development, neuron growth and regeneration, nervous system repair, and emergence of behavior. Integrated laboratory exercises focus on embryonic nervous systems, nerve cell growth *in vitro*, and independently designed experiments.
Course offered alternate years. (Credits cannot be earned for BIOL 357 and NEUR 357.)

## BIOL 358 - Cellular and Molecular Neurobiology (MC)

3 cr.

(Prerequisites: BIOL 141 - BIOL 142)

Introduces Biology and Neuroscience majors to the cellular and molecular biology of the vertebrate nervous system. Includes ion channel structure and function, synthesis, packaging and release of neurotransmitters, receptor and transduction mechanisms, intracellular signaling, cell-to-cell communication, glial cell function, and neural growth and development. Three hours lecture. (Credit cannot be earned for BIOL 358 and NEUR 358.)

## BIOL 360 - Molecular Evolution and Bioinformatics (MO)

3 cr.

(Prerequisites: MOL. BIOL I {BIOL 361}, or Genetics {BIOL 260}, or BIOCHEM {CHEM 350} or Evolution {BIOL 375}, or instructor permission)
Integrated lecture and computer lab course that examines theories of molecular evolution and analyzes large datasets bioinformatically. Topics covered will include genome evolution, phylogenetic reconstruction, command-line operations, Python scripting.

## BIOL 361 - Molecular Biology I (MC)

5 cr.

(Prerequisites: BIOL 141 - BIOL 142, CHEM 232; co-requisite: CHEM 233; laboratory is optional for Biology majors lecture requires concurrent enrollment in laboratory for BCMB majors)
Structure and function of prokaryotic cells from a molecular viewpoint. Study of macromolecule structure and function; prokaryotic gene and genome organization; prokaryotic DNA replication, RNA transcription, protein translation; regulation of prokaryotic gene expression. Three hours lecture, three hours laboratory. Spring only

## BIOL 362 - (EPW: lab only) Molecular Biology II (MC)

5 cr.

(Prerequisite: BIOL 361 or CHEM 350; lab is optional)
Structure and function of eukaryotic cells and organisms from a molecular viewpoint. Study of eukaryotic genome and gene organization, DNA packaging and replication, RNA transcription and splicing, translation into proteins and how these processes are regulated. Discussion of HIV, cancer, and evolution on the molecular level. Laboratory fulfills a writing-intensive (W) requirement. Three hours lecture, three hours optional lab. Fall only.

## BIOL 364 - Virology (MC)

3 cr.

(Prerequisites: BIOL 141 - BIOL 142, CHEM 232 - CHEM 233)
A detailed survey of viruses, including nucleic acid replication mechanisms, pathogenicity, and vaccination strategies. Strong emphasis is placed on the molecular biology of viruses of medical importance. Three hours lecture. Fall only.

## BIOL 368 - Neuroethology (MO)

4 cr.

(Prerequisite: 200-level or higher Biology course)
Study of the neuronal mechanisms of behavior in an organism's natural environment. Topics include evolution of neuronal control, neuronal processing of sensory information, sensorimotor integrations, spatial-orientations, neuromodulations, neuronal underpinnings of bird songs, neuroethology of navigation and learning and memory. (Credits for both BIOL 368 and NEUR 368 may not be earned.) (Course is offered alternate years.)

## BIOL 370 - (W: lab only) Animal Behavior (MO)

5 cr.

(Prerequisites: BIOL 141 - BIOL 142 lab is optional)
Classification of behavior types, development, functional advantages and evolution of behavior, and social and physiological aspects studied in lower and higher organisms. Lab fulfills a writing-intensive (W) requirement. Three hours lecture, two hours lab. Spring only.

## BIOL 371 - (EPW: Lab only) Ecology (MO)

5 cr.

(Prerequisites: BIOL 141 - BIOL 142; lab is optional)
Study of physical, chemical, and biological factors that influence the distribution and abundance of organisms and determine the relationships among organisms from the population to the ecosystem level. Three hours lecture, three hours lab. Lab fulfills a writing-intensive (W) requirement. Fall only.

## BIOL 374 - Vertebrate Biology (MO)

5 cr.

(Prerequisites: BIOL 141 - BIOL 142; lab is optional)
This course presents an overview of the vertebrates, placing vertebrate form and function within an eco logical and evolutionary context. Much of the course is concerned with vertebrate systematics, factors governing distribution, vertebrate inter actions with both biotic and abiotic components of their environment as well as conservation and management issues. Lab fulfills a writing-intensive (W) requirement. Three hours lecture, three hours lab. Spring only.

## BIOL 375 - Evolution (MO)

3 cr.

(Prerequisites: BIOL 141- BIOL 142)
A consideration of the theories of evolution and evidences for them in plants and animals. Population genetics and the adaptiveness of various organic traits will be discussed. Three hours lecture. Fall only.

## BIOL 379 - Biostatistics

3 cr.

(Prerequisite: MATH 109)
Data analysis and statistical techniques in biology and medicine; probability and frequency distributions, descriptive statistics, hypothesis testing, and various parametric and nonparametric statistical tests. Use of one or more computerized statistical programs. Three hours lecture. Spring only.

## BIOL 384 - Special Topics in Biology

2-4 cr.

Study of selected topics in biology, varying from year to year in accord with student/faculty interest and current research advances. May include such topics as sensory reception, membrane biology, population genetics, etc.

## BIOL 393 - Undergraduate Research

Variable Credit

(Prerequisite: 12 credits in Biology)
Individual problems for advanced students with sufficient background in biological and physical sciences.

## BIOL 394 - Undergraduate Research

Variable Credit

(Prerequisite: 12 credits in Biology)

Individual problems for advanced students with sufficient background in biological and physical sciences.

## BIOL 395 - Extreme Physiology (S)

3 cr.

(Prerequisites: BIOL 245 with lab)
This travel course will expose the student, serving as both subject and investigator, to the stunning and diverse environments of Arizona, as she/he assesses cardiovascular and respiratory conditioning and tracks his/her improvement through a 25-day period of extreme environmental and physical challenges. Accompanying instruction will explore the ongoing physiological adaptation.

## BIOL 444 - Sensory Biology (S)

3 cr.

(Prerequisites: BIOL 245 and completion of or concurrent enrollment in PHYS 121/PHYS 121L/PHYS 141/PHYS 141L)
The course applies multidisciplinary approaches to the study of senses: physics of stimuli, anatomy of receptor organs, neurophysiology of receptor cells, anatomy and central processing, animal behavior, and artificial sensor design. The course focuses on terrestrial vertebrates with occasional discussions on aquatic sensory systems. Three hours lecture. (Credit cannot be earned for BIOL 444 and NEUR 444.)

## BIOL 446 - Cardiovascular Physiology (S)

3 cr.

(Prerequisites: BIOL 245, PHYS 120/PHYS 120L or PHYS 140/PHYS 140L)
The physiological and biophysical bases of cardiovascular function, including cardiac electrophysiology and mechanics; regulation of the heart and the peripheral circulation; hemodynamics; solute and fluid exchange; and cell-cell interactions governing white blood cell transit. Special circulations will highlight the role of cardiovascular regulation in overall physiological function. Three hours lecture.

## BIOL 453 - Skeletal Biology (S)

3 cr.

(Prerequisites: BIOL 141 - BIOL 142 and BIOL 245; Completion or consecutive enrollment in PHYS 120/PHYS 120L - PHYS 121/PHYS 121L is strongly recommended.)

The course provides an interdisciplinary approach to studying form and function of the vertebrate skeletal system. Topics will include anatomical structure, development and growth, adaptation, and disease, and will incorporate the significant influence that genetic and epigenetic factors (including physical forces) have on vertebrate skeletal structure and function.

## BIOL 454 - Pathophysiology (S)

3 cr.

(Prerequisite: BIOL 245)
Pathophysiology considers how disease impacts the normal workings of the human body. This course will consider case studies from all major systems of the body and allow students to investigate the molecular basis for dysfunction. Pharmacological remedies will be explored providing a mechanism for the return of homeostasis. Three hours lecture. Spring.

## BIOL 464 - Molecular Biology of Cancer (MC)

3 cr.

Discussion of biological and molecular features of oncogenesis and clinical cancer with details of specific molecular events of carcinogenesis, metastasis, and cellular transduction with a review of treatment modalities and prevention protocols for clinically important human cancers. (Students cannot earn credits for both BCMB 464 and BIOL 464.)

## BIOL 472 - Systems Ecology (MO)

3 cr.

(Prerequisite: BIOL 371)
The study of ecosystem dynamics and their relationship to the functioning of the biosphere. A quantitative approach to ecosystem structure and function, emphasizing the use of simulation and conceptual models. The course will involve opportunities to construct and test simulation models. Three hours lecture.

## BIOL 473 - Estuarine Ecology (MO)

5 cr.

(Prerequisites: BIOL 141 or BIOL 101 or permission of instructor; lab is optional)
The ecology of marine and estuarine systems, including soil chemistry, halophyte physiology, tidal marsh ontogeny, ecosystem function and the consequences of human alteration of the coastal zone. Lab includes a week-long field trip during Spring Break to Sapelo Island, Georgia, and Cocodrie, Louisiana. Spring, even years. Three hours lecture, three hours lab.

## BIOL 479 - Portfolio Completion

0 cr.

This course is used to review and indicate officially on the student's CAPP sheet that they have completed the requirements of Goals 2 - 5 of the biology major. Available for non-credit, non-graded transcript recognition only.
This course must be completed no later than the fall semester of the student's final year (spring if graduating in the fall).
Click here to access the Portfolio Requirement Checklist.

## BLDR 351 - Principles of Management

3 cr.

This course covers the key aspects of the management process for decision-making. The focus is the organizational setting in which business leadership is exercised.

## BLDR 355 - Business Ethics

3 cr.

The individual and social ethics of the major areas of decision-making in business from a leadership perspective.

## BLDR 385 - Self-Assessment Business Leadership Seminar #1

1 cr.

Focus is on identifying the characteristics of leadership, self-assessment of personal strengths and weaknesses, and preparation of plan for self-development.

## BLDR 386 - Empowerment Business Leadership Seminar #2

1 cr.

Focus is on identifying the tasks of the leader and “enabling or empowering” people to achieve the organization’s goals.

## BLDR 455 - Policy and Planning

3 cr.

This is the capstone course for all business majors. Concepts and skills developed in the functional areas of accounting, finance, management, marketing and production/operations are integrated and applied to the top-level management of an organization. Topics include analyzing organizational environment, setting missions and objectives, developing strategies and plans, allocating resources, and designing organizational structures, reward, and control systems. Special emphasis will be given to the role of executive leadership and values in the articulation of a corporate vision and culture, and in the choice of growth and competitive strategies. Intended as a case- and project-oriented course.

## BLDR 484 - Eloquentia Negotialis

3 cr.

This Business Leadership course engages modes of public discourse about economics, politics, and business. Taking the weekly issue of The Economist—arguably the most influential magazine in this subject area—as its text, the class will analyze the news, editorial, and advertisement content. Drawing from their diverse backgrounds in University course work and from their common background in BLDR courses, students will examine individual pieces for cutting edge technical content, for an understanding of cultural and ethical implications, and in terms of sophisticated rhetoric. Students will articulate the results of this rhetorical and ethical analysis through both written reports and oral presentations to the class. On a weekly basis, students will practice critical thinking at the intersection of reading, writing, listening, and speaking.

## BLDR 485 - Mentorship Business Leadership Seminar #3

1 cr.

Student is placed in an organizational setting as a leadership intern to study the leadership of the organization.

## BLDR 486 - Senior Project Business Leadership Seminar #4

1 cr.

Student proposes, develops and executes a project evidencing a high degree of leadership skills and activity.

## BLDR 487 - Successful Consulting: Theory & Practice

3 cr.

(Prerequisites: BLDR 351 and BLDR 385)
This course covers the key aspects of the theory and practice of the business consulting aimed at achieving outstanding client outcomes. The focus includes both a theoretical framework and practical implementation in the field to solve a current client issue.

## BUAD 351 - Business Process Overview

3 cr.

This is the first course in the area of enterprise management. Students will learn to appreciate the integration of a company's core business processes. Students will be exposed to the main business processes that drive an organization, the interactions within and between them, and the effect of integration on the decision-making environment. This course uses an enterprise-wide integrated information-systems software and simulated data for a model company. (Credits may not be earned for BUAD 351 and OIM 353.)

## BUAD 470 - Enterprise Information Systems

3 cr.

(Prerequisite: BUAD 351)
This course is concerned with the management and operations of information systems in an integrated enterprise. It will examine the integrated business processes of an enterprise. Students will analyze and study enterprise systems software in detail. Students will be exposed to the management of the enterprise systems software. They will learn about business integration through the concepts of business engineering and business workflow.

## BUAD 471 - Configuration and Consulting

3 cr.

(Prerequisite: BUAD 351)
Focus is on the implementation of enterprise systems projects and the role of consultants in such implementation. It examines the integrated business processes of an enterprise, and the concepts of developing data models, business objects, and event-process chains. Students develop implementation plans for enterprise systems software. The course will also discuss the configuration procedures in implementing enterprise systems software. The goal of the course is to prepare the students to become consultants in enterprise systems.

## BUAN 261 - Introduction to Business Programming

3 cr.

The focus of this course is to introduce students to business programming using tools such as Visual Basic for Applications (VBA). More specifically, it will train students how to write programs that automate various tasks in Excel, and develop applications that support business decision making. The ultimate goal will be on the creation of applications that will allow managers to make effective data-driven decisions. Advanced Excel skills such as Power Pivot and Pivot tables will also be covered. Students will gain insights into how to continue developing their skills in their careers. (Credits may not be earned for both EC 261 and BUAN 261).

## BUAN 362 - Database Management Systems

3 cr.

This course deals with the use of database management systems to support electronic business. Topics include: data modeling; database design and normalization; structured query language (SQL); database application development; integration of web

server and database server; distributed data-bases; data warehousing; and data mining. (Credit cannot be earned for EC 362, BUAN 362, and ACC 374)

## BUAN 461 - Internet Applications Development

3 cr.

(Prerequisite: BUAN 362 or permission of instructor)
An introduction to existing and evolving Internet technologies needed for web site development and management. Client and server-side scripts will be utilized to explore their role in interacting with customers, customizing web pages, processing forms, maintaining state, and connecting to data-bases. Course delivery will be primarily conducted through hands-on assignments and projects. (Credits may not be earned for both EC 362 and BUAN 362.)

## BUAN 463 - Data Mining

3 cr.

(Prerequisite: STAT 251)
Data mining refers to an analytic process designed to explore data (usually large amounts of data - typically business or market related - also known as "big data") in search of consistent patterns and/or systematic relationships between variables, and then to validate the findings by applying the detected patterns to new subsets of data. Hands-on applications of various data mining techniques (e.g. classification, association analysis, clustering, text mining, anomaly detection, feature selections) using data mining software tools will be used. (Credits may not be earned for EC 463, OIM 463, and BUAN 463.)

## BUAN 465 - Customer Relations Management Analytics

3 cr.

This course allows the engagement with customers consistently across all touchpoints and functional activities. It provides hands on experience on Google Analytics, Search Engine Optimization, Social Media Optimization and SAP Hybris Solutions. By the end of the course, students can strategically generate and gather online information to measure traffic, visitor engagement and potential impact on ROI.

## BUAN 470 - Introduction to Big Data

3 cr.

(Prerequisite: BUAN 463)
Big Data refers to the voluminous amount of structured and unstructured data that is harnessed from a variety of sources such as social media and electronic commerce transactions with the aim of revealing patterns, trends, and associations. The course covers the principles of Big Data, Internet of Things, Artificial Intelligence, Machine Learning and their business applications. The course involves using real-life Big Data applications to solving complex business problems.

## BUAN 475 - Business Simulation

3 cr.

(Prerequisites: OIM 352)
This course focuses on the use of simulation modeling as a tool to analyze various business applications in the face of risk and uncertainty. Students will gain hands-on experience in using simulation software to create predictive models to prescribe insightful decisions that reflect complex realities.

## BUS 140 - (FYDT,FYOC) Business Information & Oral Proficiency

3 cr.

This course is designed to introduce students to digital technology tools and software commonly used in business to research, problem solve, evaluate, and disseminate information. Students will learn the concepts of public speaking and demonstrate the ability to effectively present research outcomes and data finding to an audience.

## BUS 140K - (FYDT,FYOC) Business Information & Oral Proficiency

3 cr.

This course is designed to introduce students to digital technology tools and software commonly used in business to research, problem solve, evaluate, and disseminate information at an honors-level. Students will learn the concepts of public speaking and demonstrate the ability to effectively present research outcomes and data finding to an audience.

## BUS 150 - Career and Professional Development

1 cr.

Principles, methods, and practice in achieving career goals with emphasis on the exploration of career opportunities, identification of strengths, resume development, cover letter composition, interviewing, salary and benefits negotiations, networking, professional image, and the use of technology in achieving career goals.

## BUS 250 - (S) C-Suite Fraud Behavior

3 cr.

This course introduces students to the theories, models, and practices used to assess, prevent, and detect business fraud behavior at the C-Suite level. Topics will include: the impact of fraud on society, business, and the individual; pressures and rationalization that enable fraud behavior; and techniques used to avoid fraud pitfalls.

## C/CJ 200 - Forensic Science

3 cr.

Designed for law-enforcement majors as well as science majors, this is a study of the rules of evidence and the position of the expert scientific witness in law, followed by a review of the uses of scientific, and particularly chemical, evidence in various phases of the investigation and trial of criminal actions.

## C/IL 102/102L - (FYDT) Computing and Information Literacy

3 cr.

Students learn to use digital technology in the problem-solving process to obtain, evaluate and disseminate information. Two hours lecture, two hours lab. Requires concurrent enrollment in lecture and lab. Students may earn credit for only one C/IL course. Successful completion of this course (with a grade of C or better) fulfills the computer literacy skills requirement of the University.

## C/IL 102L - (FYDT) Computing and Information Literacy/Lab

3 cr.

Students learn to use digital technology in the problem-solving process to obtain, evaluate and disseminate information. Two hours lecture, two hours lab. Requires concurrent enrollment in lecture and lab.
Students may earn credit for only one C/IL course. Successful completion of C/IL 102/102L (with a grade of C or better) fulfills the computer literacy skills requirement of the University.

## C/IL 104 - Computing and Informational Literacy for Business

3 cr.

A focused variant of C/IL 102/102L - C/IL 102L with an emphasis appropriate for students with majors in the Kania School of Management.

## CHED 300 - Career Seminar in Health Promotion

1 cr.

(Prerequisite: 3rd year standing in Health Promotion Major)
Health Promotion majors will health promotion career trends, career paths, graduate programs, professional employment and credentialing, ethical practice, and internships. Students will develop a plan for professional growth and development within the health promotion field

## CHEM 100 - (E) Elements of Chemistry

3 cr.

An elementary study of the field of chemistry for the non-science major; concepts of structure, states of matter, modern developments, implications of the field for modern society. Three hours lecture.

## CHEM 104 - (E) Science and Society

3 cr.

A study of some current problems of a scientific and technological nature from the point of view of the non-science major. Scientific background will be provided to lead to greater understanding and possible solutions. Possible topic: energy, genetic engineering, narcotics, pesticides, etc. Three hours lecture.

## CHEM 110 - (E) Introductory Chemistry

3 cr.

(CHEM 110 is a prerequisite for CHEM 111)
A study of the fundamental concepts of general chemistry, organic chemistry, and biochemistry.

## CHEM 110-111 - (E) Introductory Chemistry

6 cr.

(CHEM 110 is a prerequisite for CHEM 111)
A study of the fundamental concepts of general chemistry, organic chemistry, and biochemistry. Three hours lecture each semester.

## CHEM 110L-111L - Introductory Chemistry Laboratory

2 cr.

(Lecture is required as pre- or co-requisite; CHEM 110L is prerequisite for CHEM 111L)
Experiments dealing with principles of general, organic and biological chemistry are performed. Two hours laboratory each semester.

## CHEM 111 - (E) Introductory Chemistry

3 cr.

(CHEM 110 is a prerequisite for CHEM 111)
A study of the fundamental concepts of general chemistry, organic chemistry, and biochemistry.

## CHEM 112 - (E) General and Analytical Chemistry

3 cr.

A study of the laws, theories and principles of general chemistry together with qualitative and quantitative analysis. Three hours lecture each semester.

## CHEM 112-113 - (E) General and Analytical Chemistry

6 cr.

(CHEM 112 is a prerequisite for CHEM 113)
A study of the laws, theories and principles of general chemistry together with qualitative and quantitative analysis. Three hours lecture each semester.

## CHEM 112L-113L - General and Analytical Chemistry Laboratory

3 cr.

(Lecture is required as pre- or co-requisite; CHEM 112L is prerequisite for CHEM 113L)
Experiments involve semi-micro techniques for qualitative and quantitative analysis (gravimetric and volumetric analysis). Three hours laboratory each semester.

## CHEM 113 - (E) General and Analytical Chemistry

3 cr.

(CHEM 112 is a prerequisite for CHEM 113)
A study of the laws, theories and principles of general chemistry together with qualitative and quantitative analysis. Three hours lecture each semester.

## CHEM 114L - General Analytical Chemistry Laboratory

2 cr.

A special laboratory course for those students who are advanced in chemistry. Semi-micro techniques of gravimetric and volumetric quantitative analysis. Admission will be on the basis of a placement exam and the professor's permission.
Note: For students with majors in the Chemistry and Biology departments, this course will satisfy the requirements for the CHEM 112L-113L laboratory courses.

## CHEM 202 - (E) Global Change

3 cr.

Earth system sciences and global environmental change, examining the records of past changes in climate, land-mass distribution, and atmospheric and oceanic composition, evaluating fossils, tree ring data, and geological indicators.

## CHEM 232 - (E) Organic Chemistry

3 cr.

(Prerequisites: CHEM 112-113; CHEM 232 is a prerequisite for CHEM 233)
An introduction to the chemistry of the principal aliphatic and aromatic compounds of carbon and their derivatives. Three hours lecture each semester.

## CHEM 232L - Organic Chemistry Laboratory

1.5 cr.

(Lecture is required as pre- or co-requisite; CHEM 113L or CHEM 114L is a prerequisite for CHEM 232L; CHEM 232L is prerequisite for CHEM 233L)
Investigation of the chemical preparations and syntheses of major organic functional groups. Three hours laboratory each semester.

## CHEM 233 - (E) Organic Chemistry

3 cr.

(Prerequisites: CHEM 112-113; CHEM 232 is a prerequisite for CHEM 233)
An introduction to the chemistry of the principal aliphatic and aromatic compounds of carbon and their derivatives. Three hours lecture each semester.

## CHEM 233L - Organic Chemistry Laboratory

1.5 cr.

(Lecture is required as pre- or co-requisite; CHEM 232L is prerequisite for CHEM 233L)
Investigation of the chemical preparations and syntheses of major organic functional groups. Three hours laboratory each semester.

## CHEM 240 - Inorganic Chemistry

3 cr.

(Prerequisite: CHEM 113)
Descriptive chemistry of main group and selected transition elements and their compounds correlated with the periodic table, physical properties, atomic and molecular structure.

## CHEM 320 - Industrial Chemistry

3 cr.

A review of chemical operations and unit or batch processes common to industry. Econometric analysis involving supply-demand, productivity, commodity prices and costing is an important area covered, as are measures of productivity and patent activity. Three hours lecture.

## CHEM 330 - Organic Chemistry III

2 cr.

(Prerequisites: CHEM 232- CHEM 233)
A continuation of CHEM 232 and CHEM 233, emphasizing the study of the major types of organic mechanisms. Two hours lecture.

## CHEM 330L - Organic Chemistry III

1.5-3 cr.

(Lecture is required as pre- or co-requisite; CHEM 233L is a prerequisite)
Experiments involve advanced techniques in synthesis and characterization of organic compounds. Six hours laboratory for Chemistry majors and three hours laboratory for Biochemistry majors.

## CHEM 340 - Environmental Chemistry

3 cr.

(Prerequisites: CHEM 232- CHEM 233)
A study of chemicals in the environment including their origin, transport, reactions, and toxicity in soil, water, air and living systems.

## CHEM 342 - Environmental Toxicology

3 cr.

(Prerequisites: CHEM 232-CHEM 233, BIOL 141-BIOL 142)
This course will encompass several realms of environmental toxicology, including general toxicological theory, effects of contaminants on various biological systems, and discussion of environmental toxicological issues (i.e., specific case studies as well as the types of analyses used in these types of studies).

## CHEM 344 - Environmental Geochemistry

3 cr.

(Prerequisites: CHEM 232-CHEM 233)
Consideration of natural cycles (carbon, sulfur, oxygen, water, etc.) that govern the chemistry of our planet. The origins of the elements, paleohistory, and composition of the planet. Effects of man's activities with attention to their effects on the state of the oceans and the atmosphere.

## CHEM 350 - General Biochemistry I

3 cr.

(Prerequisite: CHEM 233)
An introduction to the study of biochemistry. A study of the chemical nature of lipids, carbohydrates, proteins, nucleic acids and enzymes, including relationships among vitamins, hormones, and inorganic compounds. Three hours lecture. Successful completion of CHEM 350 precludes credit for CHEM 450.

## CHEM 351 - General Biochemistry II

3 cr.

(Prerequisite: CHEM 350)
An introduction to the study of the metabolism of carbohydrates, lipids, amino acids, and proteins, including energy transformations and the role of enzyme systems in the above processes.
Successful completion of CHEM 351 precludes credit for CHEM 451. Three hours lecture.

## CHEM 360 - Biophysical Chemistry I

3 cr.

(Prerequisites: CHEM 232-CHEM 233 and CHEM 232L-CHEM 233L)
An introduction to the application of physical-chemical principles to biological problems. This involves aqueous solutions, colloidal chemistry, thermodynamics, electro-chemistry, chemical kinetics and nuclear chemistry. Three hours lecture.

## CHEM 360L - Biophysical Chemistry Laboratory

1.5 cr.

(Lecture is required as pre- or co requisite; CHEM 360L is prerequisite for CHEM 361L)

Experiments involve applications of physical-chemical techniques to biological problems. Three hours laboratory each semester.

## CHEM 361 - Biophysical Chemistry II

3 cr.

(Prerequisite CHEM 360)
A continuation of Biophysical Chemistry I involving a study of atomic and molecular structure, spectroscopy, photo-chemistry, and surface chemistry with applications to biological and biochemical phenomena. Three hours lecture.

## CHEM 361L - Biophysical Chemistry Laboratory

1.5 cr.

(Lecture is required as pre- or co requisite; CHEM 360L is prerequisite for CHEM 361L)
Experiments involve applications of physical-chemical techniques to biological problems. Three hours laboratory each semester.

## CHEM 362 - Physical Chemistry I

3 cr.

(Prerequisites: CHEM 113, MATH 222)
A study of the physical-chemical properties of matter and the dynamics of chemical reactions. Three hours lecture each semester.

## CHEM 362L - (EPW) Physical Chemistry Laboratory

1.5 cr.

Lecture is pre- or co-requisite; CHEM 362L is prerequisite for CHEM 363L)
Experiments demonstrate physical-chemical properties of matter and reactions. Three hours laboratory each semester.

## CHEM 363 - Physical Chemistry II

3 cr.

(Prerequisites: CHEM 113, MATH 222)
A study of the physical-chemical properties of matter and the dynamics of chemical reactions. Three hours lecture each semester.

## CHEM 363L - (EPW) Physical Chemistry Laboratory

1.5 cr.

(Lecture is pre- or co-requisite; CHEM 362L is prerequisite for CHEM 363L)
Experiments demonstrate physical-chemical properties of matter and reactions. Three hours laboratory each semester.

## CHEM 370 - Instrumental Analysis

3 cr.

(Prerequisite: CHEM 360 or CHEM 362)
Instrumental methods of analysis consisting of theory and application of such instrumental techniques as spectroscopy, polarography, and instrumental titrimetry. Two hours lecture.

## CHEM 370L - Instrumental Analysis Laboratory

3 cr.

(Lecture is required as pre- or co-requisite)
Experiments involve application of modern chemical instrumentation and techniques to quantitative analysis. Six hours laboratory.

## CHEM 384 - Special Topics in Chemistry

2-4 cr.

Study of selected topics in chemistry and biochemistry, depending on student and faculty interest and the current state of the science. It may include topics from inorganic chemistry, organic chemistry, physical chemistry, analytical chemistry, polymer chemistry and interdisciplinary topics.

## CHEM 390 - (EPW) Chemical Literature and Writing

1 cr.

A study of the published source material of chemical science and industry. The course includes practical instruction in library technique and in the written reporting of results. One hour lecture.

## CHEM 391 - Seminar

1 cr.

Current topics in chemistry, biochemistry, and industrial chemistry are prepared and presented by the students.

## CHEM 440 - Advanced Inorganic Chemistry

3 cr.

(Prerequisites: CHEM 362-CHEM 363 or CHEM 360-CHEM 361)
Theoretical concepts and their application to the reactions and structure of inorganic compounds. Coordination chemistry and related topics, physical methods and reaction mechanisms. Three hours lecture.

## CHEM 440L - Advanced Inorganic Chemistry Laboratory

1.5 cr.

(Lecture is required as pre- or co-requisite)
Laboratory methods involving synthesis and characterization of inorganic compounds are developed. Three hours laboratory.

## CHEM 450 - Biochemistry I

3 cr.

(Prerequisites: CHEM 233)
Structure-function relationships with emphasis on the organic and biophysical characteristics of proteins, lipids and carbohydrates are described. Enzyme mechanisms and kinetics and the thermodynamic basis of intermediary metabolism are major themes. Three hours lecture. CHEM 450L is required of Biochemistry majors. Successful completion of CHEM 450 precludes credit for CHEM 350.

## CHEM 450L - (EPW) Biochemistry Laboratory

1.5 cr.

(Lecture is required as pre- or co-requisite)
Experiments involve techniques used in characterization of biopolymers and study of enzyme kinetics.

## CHEM 451 - Biochemistry II

3 cr.

(Prerequisite: CHEM 450)
The discussion of intermediary metabolism is continued from CHEM 450 with emphasis on lipid protein and nucleic acid metabolism. Chemical aspects of molecular biology, including DNA replication, gene regulation and protein biosynthesis are included. Three hours lecture. Successful completion of CHEM 451 precludes credit for CHEM 351.

## CHEM 452 - Enzymology

3 cr.

A course in the chemical nature of enzymes with relation to mechanism of enzyme action and kinetics, purification and identification of enzymes and isoenzymes, biochemical and physiological aspects of enzymes in living systems. Three hours lecture.

## CHEM 455 - Chemical Toxicology

3 cr.

(Formerly CHEM 352) (Prerequisite: CHEM 350 or CHEM 450 for the first semester and CHEM 351 or CHEM 451 as prerequisite or co-requisite for the second semester)
The nature, mode of action and methods of counteracting substances which have an adverse effect on biological systems, especially human. Medical, industrial and environmental forensic aspects will be discussed. Three hours lecture.

## CHEM 460 - Physical Chemistry III

3 cr.

(Prerequisite: CHEM 363)
Quantum mechanics and quantum chemistry, including classical problems, perturbational theory, variational theory and specific applications of molecular orbital theory to organic molecules and spectroscopic applications.

## CHEM 464 - Polymer Chemistry

3 cr.

(Co-requisites: CHEM 330, CHEM 361 or CHEM 363)
Survey of preparative methods for polymers; characterization of polymers using physico-chemical methods, spectroscopy, and thermal analysis; structure-property relationships; and applications of polymers. Three hours lecture.

## CHEM 464L - Polymer Chemistry Laboratory

1.5 cr.

(Pre- or co-requisites: CHEM 330, CHEM 464)
Laboratory experiments investigate synthesis and characterization methods for polymers, structure- property effects, and thermal analysis of polymers. Three hours laboratory.

## CHEM 470 - Forensic Chemistry

2 cr.

(Prerequisite: CHEM 360 or CHEM 362)
Acquisition of forensic evidence through use of analytical techniques. Statistical and multivariate analysis of data, and presentation of forensic evidence in a legal environment. Two hours lecture.

## CHEM 470L - (EPW) Forensic Chemistry Laboratory

3 cr.

(Prerequisites: CHEM 360L or CHEM 362L, CHEM 370, CHEM 370L; co-requisite: CHEM 470)
Acquisition of forensic evidence through use of analytical techniques. Statistical and multivariate analysis of data, and presentation of forensic evidence in a legal environment. Four hours laboratory.

## CHEM 490 - Advanced Topics in Biochemistry Capstone

3 cr.

(Prerequisites: CHEM 450-CHEM 451 or permission of the instructor)
The capstone course for students majoring in Biochemistry-Preprofessional Track. Fundamentals of biochemistry are used to explore various themes in applied biochemistry. Students are responsible for researching advanced topics and presenting lecture/discussions or case studies to the class.

## CHEM 493 - Undergraduate Research

1.5 cr.

(Prerequisites: CHEM 233, CHEM 360 or CHEM 362, CHEM 390)
Individual study and research in connection with a specific chemistry or biochemistry problem. Results must be written as a thesis and defended before the department. 1.5 credits each semester.

## CHEM 494 - Undergraduate Research

1.5 cr.

(Prerequisites: CHEM 233, CHEM 360 or CHEM 362, CHEM 390)
Individual study and research in connection with a specific chemistry or biochemistry problem. Results must be written as a thesis and defended before the department. 1.5 credits each semester.

## CHS 111 - (S) Introduction to Human Adjustment

3 cr.

Introduction to human adjustment throughout the lifespan. Focuses on discrimination of normal and abnormal behavioral and emotional responses to developmental life stages and to common developmental concerns.

## CHS 112 - Human Services Systems

3 cr.

Examines the human-services systems and institutions which have evolved as a response to human need. Explores both the effect of social problems on individuals and families and the service systems designed to alleviate such problems. *Includes community based learning component.*

## CHS 241 - (D) Case Management and Interviewing

3 cr.

The role of the human-services professional as a case manager or coordinator of services is examined. Initial interviewing skills and techniques are discussed with an emphasis on case conceptualization, problem identification, goal selection, evaluation, and follow-up. *Includes community based learning component.*

## CHS 242 - Counseling Theories

3 cr.

The role of the human-services professional as an individual counselor or caseworker is examined. Theories and techniques as well as problems in individual counseling are explored.

## CHS 284 - Special Topics

3 cr.

Courses developed to provide in-depth coverage of specific topics in human services. Course title will be provided in advance of registration. May be used only twice to satisfy major or minor elective requirement.

## CHS 293 - (EPW) Research Methods in Counseling and Human Services

3 cr.

An introduction to research methodology as applied to problems in human-services agencies and settings. Specific topics include descriptive, experimental, and quasi-experimental research methods. Emphasis is placed on development of the student's ability to be a critical consumer of research in human services.

## CHS 322 - Cognitive Disabilities

3 cr.

Etiology, assessment, diagnosis, treatment and prevention of cognitive disabilities are presented. This course examines both student and societal beliefs concerning persons with cognitive disabilities. The implications of living with cognitive disabilities will be explored and the impact of disability culture as a means to facilitate the empowerment of children and adults with cognitive disabilities will be presented.

## CHS 323 - Psychiatric Rehabilitation

3 cr.

Examination of the problems associated with mental and emotional disturbances are presented. Emphasis is placed on contemporary modalities of rehabilitation as they relate to community mental-health programs, and innovative non-medical treatment approaches. Critical issues in mental health will be discussed.

## CHS 325 - Psychosocial Aspects of Disordered Eating

3 cr.

Designed to introduce students to the clinical descriptions of disordered eating and eating disorders along with knowledge of their complex nature. This course will explore: biopsychosocial factors, medical and psychosocial consequences, and possible treatment modalities including prevention.

## CHS 327 - Introduction to Professional School Counseling

3 cr.

This course introduces undergraduate students to the school counseling profession, a master's degree-level counseling specialization. An overview of the roles and responsibilities of Professional School Counselors, an introduction to the American School Counselor Association (ASCA) National Model®, and exposure to contemporary issues within the profession will be presented.

## CHS 328 - CHS in P-12 Schools

3 cr.

(Prerequisites: Junior or Senior Standing)
This course introduces students to the roles and responsibilities of various counseling and human services professionals in P-12 schools. Students will develop an understanding of the varied support systems that exist within schools and will learn important skills to maximize collaboration and optimize the learning environment for all students.

## CHS 330 - Introduction to Art Therapy

3 cr.

Provides a broad overview of the field of art therapy. The work of art therapists will be discussed along with the history, theory, practice, populations and applications of the field. The course will be presented through lectures, readings and hand-on experiential work.

## CHS 331 - Health and Behavior

3 cr.

Focuses on stress which affects thoughts, emotions, and the body. Stress diseases of adaption include cancer, Type A Behavior, GI tract disorders along with stress-related thought disorders and emotional disturbances. Students learn to apply relaxation, cognitive restructuring and record-keeping in the treatment of their own as well as others' health.

## CHS 333 - (D) Multiculturalism in Counseling and Human Services

3 cr.

Focuses on current social and cultural issues in human services and related fields. Human development in a multicultural and diverse society will be examined and the basic objectives and dimensions of multicultural intervention will be defined. Student self-awareness of values, attitudes, and beliefs will be emphasized. *Includes community based learning component.*

## CHS 334 - Marital and Family Counseling

3 cr.

Theories of family counseling will be presented with specific attention to the structural and strategic approaches. A variety of family counseling techniques and stages will be learned through the use of role play and videotaping. The utilization of family counseling will be discussed.

## CHS 335 - Administration in Human Services

3 cr.

Focuses on the development of skills and knowledge related to program and organizational development, and community-wide planning in human services. Topics include organizational theory applied to human-services settings, consultation, supervision, planning, funding and training.

## CHS 337 - (D) Counseling Girls and Women

3 cr.

This course is designed to explore the topic of counseling girls and women in a sociocultural, historical, and multicultural context. Through the examination of the history of women (e.g., social construction of gender, identity) from a self-in-relation foundation, and feminist counseling and its role in de-pathologizing the importance of relationships to girls and women will be explored.

## CHS 338 - Poverty, Homelessness and Social Justice

3 cr.

Focuses on developing and understanding of the social, historical and political dimensions of poverty and homelessness in the U.S. and explores the implications for distributive justice. Students assess the effectiveness of the social policies and programs created to combat poverty and homelessness, and participate in course-required service learning and social action projects.

## CHS 339 - Counseling Boys and Men

3 cr.

(Prerequisites: CHS 111, CHS 241)
Focuses on the development of boys and men and the social construction of masculinity within social and historical perspectives. The impact of culture on development and the needs of boys and men that result receive special attention. The role of the counselor in working with boys and men will be explored.

## CHS 340 - Career Seminar

1 cr.

(Majors only; Prerequisite for CHS 380)
Designed to introduce the student in the Counseling and Human Services curriculum to counseling, human development and human-services occupations. Short- and long-term goals are examined in preparation for internship, employment or further study.

## CHS 341 - Group Dynamics

3 cr.

A basic understanding of group dynamics and individual behavior in groups is presented. Methods of developing and organizing group programs are stressed. Students participate in a group experience. *Includes community based learning component.*

## CHS 342 - Foundations of Rehabilitation

3 cr.

Students will develop sensitivity, appreciation and understanding of what it means to have a disability. Topics covered will include federal, state and community mandates, independent-living concepts, and the basic principles of rehabilitation. A comprehensive review of the variety of rehabilitation programs is provided. Ethical decision-making will be integrated into the course and students will learn to practice with cultural sensitivity. Site visits to rehabilitation agencies and applied experiences will be conducted.

## CHS 343 - Medical and Psychosocial Aspects of Disabilities

3 cr.

Students will acquire knowledge and understanding of the medical, functional and psychosocial aspects of a wide array of disabilities. The emphasis will be holistic and person- centered. Curriculum components include learning medical terminology, the use of medical information and discussion of psychosocial aspects of disability. Students will have the opportunity to interact with persons with disabilities.

## CHS 344 - Vocational Evaluation

3 cr.

This course focuses on the theme of assessment and employment of individuals with disabilities. Students will discover the impact of the Rehabilitation Act Amendments of 1998 and the Americans with Disabilities Act on employment concerns of persons with disabilities. Students will compile and utilize assessment information such as prior records, test results, work samples and situational assessment.

## CHS 360 - Individual Assessment

3 cr.

(Prerequisite: a statistics course e.g. PSYC 210 is required)
Introduces principles of test construction, administration, and interpretation. Promotes understanding of assessment in counseling/human services and human resources. Emphasis is placed on competency development in evaluation and interpretation of ability, interest, personality, and performance assessments with experiential components. Ethical and legal issues, historical considerations, and assessment for diverse populations are reviewed.

## CHS 375 - Counseling Lesbian, Gay, Bisexual, Transgender, and Questioning Persons

3 cr.

(Pre-requisite: Junior Standing)
Examines development of lesbian, gay, bisexual, transgender and questioning plus (LGBTQ+) persons and cultures. Intersections of affectional/sexual orientation and gender identity with other variables including race, spirituality/religion, and disability are emphasized. Myths, stereotypes, and implications of managing marginalized identities are reviewed along with strategies to provide affirmative services to population.

## CHS 380 - Internship in Counseling and Human Services

3 cr.

(Prerequisite: CHS 340)
The internship is a significant clinical and educational experience. It provides both a supervised practical experience in the student's field and an opportunity to integrate knowledge and skills. Students will spend a minimum of 150 hours in the field placement. (Prerequisite for CHS 481)

## CHS 421 - Addictions

3 cr.

An integrated biophysical model of addition and recovery is described. Approaches to assessment, treatment and relapse prevention are covered.

## CHS 422 - Substance-Abuse Education

3 cr.

Design, implementation, and evaluation of substance-abuse education and prevention programs.

## CHS 423 - Issues in Substance Abuse

3 cr.

Legal and health consequences of substance abuse are examined. Special attention is given to the role of family dynamics, recovery process, dual disorders and ethics in the counseling process.

## CHS 439 - Spirituality in Counseling and Human Services

3 cr.

This course will assist students in understanding various models of spirituality and their potential integration into the counseling process. Critical reflection on a variety of diverse spiritual perspectives and their implications for human services practice is encouraged. Current research in the area of spirituality and counseling is examined.

## CHS 440 - Job Development

3 cr.

An awareness of the changing world of work will be the backdrop for job analysis, labor-market surveys, vocational adjustment, job development and job placement. Students will be exposed to both traditional and current models of employment for individuals with disabilities. Coordination of services with collaborating agencies (e.g., social, financial and vocational) will be included. Rehabilitation technology and adapted computer applications will be emphasized.

## CHS 441 - (EPW) Crisis Intervention

3 cr.

Theory and practice of crisis intervention as applied to common crisis situations such as suicide, battering, violent behavior, post-traumatic stress disorder, substance abuse, sexual assault, and personal loss. *Includes community based learning component.*

## CHS 459 - Spirituality in Counseling and Human Services

3 cr.

This course assists students in understanding various models of spirituality and their potential integration into the counseling process. Critical reflection on a variety of diverse spiritual perspectives for human services practice is encouraged. Current research is examined. (Course is typically offered in the Summer semester.)

## CHS 480 - Internship in Rehabilitation Services

3 cr.

(Prerequisite: CHS 380 and clearances are required)
The internship is specifically designed for students in the Rehabilitation Services concentration. Students will spend a minimum of 200 hours in their field placement. The internship provides a practical experience in the rehabilitation field and an opportunity to integrate course knowledge.

## CHS 481 - Advanced Internship in Counseling and Human Services

3 cr.

(Prerequisite: CHS 380)
This advanced internship in Counseling and Human Services involves 200 hours in a community agency or organization. This course is required.

## CJ 101 - Foundations for Criminal Justice Professionals

3 cr.

This course is designed to introduce first-year students to the challenges of academic and personal life at our Catholic and Jesuit University and to provide them with the necessary foundational skills to be successful in academics and a career in criminal justice or criminology.

## CJ 110 - (S) Introduction to Criminal Justice

3 cr.

A foundation course examining problems in the study of crime and criminal justice, basic elements of criminal law and constitutional rights, and the functions of, as well as the relationship between, major components of the criminal justice system; agencies and role of law enforcement; prosecution; the judicial process; and corrections.

## CJ 230 - Crime Prevention

3 cr.

This course analyzes the basic theories of community policing, problem-solving policing and crime prevention. The emphasis is on primary, secondary and tertiary prevention techniques. Emphasis will be given to the various analytical approaches to the study of criminal profiling, terrorism and methods of planning.

## CJ 231 - Environmental Criminology

3 cr.

This course examines the environment of crime rather than characteristics of offenders. Main focuses are on the distinction between crime and criminality, opportunities and obstacles in the everyday environment for carrying crime out, and means for reducing crime by modifying or planning the built environment so crime is less opportune.

## CJ 235 - Cyber Law and Policy

3 cr.

This course is a foundation course that emphasizes a broad array of knowledge, skills, and abilities in cyber law and legal perspectives. The course material will review legal background, security-technology background, privacy protection, economic espionage, copyright in the online world, cybersecurity and law, and jurisdiction issues.

## CJ 237 - The Investigative Process

3 cr.

This course considers appropriate investigative procedures concerning major criminal investigations. An analysis of specific investigative theories and courtroom applications will be conducted through learning simulation. The homicide court problem will focus on the preservation and admission of evidence.

## CJ 239 - Introductory Criminal Analysis

3 cr.

Focuses on the application of analytical techniques that support crime intervention and prevention strategies. Subspecialties include, but are not limited to: (1) criminal investigative analysis, (2) intelligence analysis and (3) intelligence analysis. The analytical process incorporates innovative strategic and crime mapping tactical applications.

## CJ 240 - Cybercrime

3 cr.

This course will introduce the student to the investigation of computer-based crimes and the importance of preserving and correctly interpreting digital evidence. The course material will review the history of computer crime, associated terminology, and the types of crimes committed in cyberspace, specific laws, investigative techniques, and criminological theories applicable to computer crime.

## CJ 250 - Introduction to Homeland Security

3 cr.

This course provides students with a broad, up-to-date, multidisciplinary overview of homeland security as a contemporary subject of intense interest and inquiry, and as an emerging academic discipline. The course focuses on four areas: the enemy and the threat; the policies and procedures enacted since 9/11; the key players at the federal, state, and local levels; and legal issues critical to the conduct of homeland security activities.

## CJ 259 - Introduction to Homeland Security

3 cr.

This course provides students with a broad, up-to-date, multidisciplinary overview of homeland security as a contemporary subject of intense interest and inquiry, and as an emerging academic discipline. The course focuses on four areas: the enemy and the threat; the policies and procedures enacted since 9/11; the key players at the federal, state, and local levels; and legal issues critical to the conduct of homeland security activities.

## CJ 309 - Crime Analysis

3 cr.

(Formerly CJ 313) (Prerequisites: CJ 110)
This course focuses on the application of analytical techniques that support crime intervention and prevention strategies. Subspecialties include:

1. analysis of crime in time
2. analysis of crime in space
3. analysis of crime targets/victims
4. intelligence analysis

The analytical process incorporates innovative strategic and tactical applications.

## CJ 310 - Criminal Justice Process

3 cr.

A study of the law of criminal procedure, treating investigation and police practices, preliminary proceedings, and trial, as they relate to the development and structure of the American criminal justice system and as they affect offenders.

## CJ 311 - GIS for Public Safety

3 cr.

(Prerequisites: CJ 110; Co-requisite: CJ 311L)
This workshop-style course focuses on a practical introduction to the basic functionality of geographic information system (GIS) software for analyzing public safety data through mapping. Sub-specialties include: (1) creation of geographic digital data, (2) analysis of public safety data, and (3) production of digital maps to build further expertise in GIS.

## CJ 311L - GIS for Public Safety Lab

1 cr.

(Co-requisite: CJ 311)
GIS and mapping-related activities are undertaken that apply essential concepts form CJ 311 including geocoding, creation of points-polylines-polygons, merging geographic data with external data, and creating buffer zones and hot spots maps for analytical purposes.

## CJ 312 - Criminal Law

3 cr.

A study of substantive criminal law in view of its historical foundations, purpose, functions and limits; of crime and defenses generally; and of the elements which constitute certain specific crimes under state and federal statutes.

## CJ 338 - Police Criminalistics

3 cr.

A course in crime scene reconstruction. Emphasis is on police criminalistics and the coordination of physical evidence with scientific laboratories.

## CJ 340 - Terrorism and Homeland Security

3 cr.

(Prerequisite: CJ 110 or permission from Department Chairperson)
This course examines the history and essential characteristics of international and domestic terrorism and political violence, acts of terrorism, and strategies and legal aspects to counter terrorism. Main focuses are on the asymmetrical nature of terrorism, origins and aims of the terrorist groups with a religious, ideological or nationalistic background.

## CJ 350 - Emergency Management

3 cr.

(Prerequisite: CJ 110 or Permission from Department Chairperson)
Emergency management became an important profession. This course introduces students to the emergency management profession. Topics include the history of emergency management the identification and assessment of hazards, risk, and vulnerability, and the four phases of emergency management (mitigation, preparedness, response, and recovery). The course concludes with a discussion on the future of emergency management.

## CJ 382 - 383 - Independent Study in Criminal Justice

3 cr.

(Prerequisite: Permission of chairperson and instructor)
Directed projects and surveys in criminal justice, law enforcement, and corrections designed to give the student academic flexibility.

## CJ 383 - Independent Study in Criminal Justice

1.5 cr.

(Prerequisite: Permission of chairperson and instructor)
Directed projects and surveys in criminal justice, law enforcement, and corrections designed to give the student academic flexibility.

## CJ 480 - 481 - Internship Experience

3 cr.

(Prerequisite: Permission of instructor)
Supervised experiential learning in an approved criminal justice setting, taken preferably in junior and senior year.

## CJ 481 - Internship Experience

1.5 cr.

(Prerequisite: Permission of instructor)

Supervised experiential learning in an approved criminal justice setting, taken preferably in junior and senior year.

## CMPS 101 - (Q) Computational Thinking

3 cr.

This course introduces students to the concepts, methods, and principles employed by Computer Scientists in problem solving and solution development. This body of knowledge has been successfully adopted by a wide variety of disciplines enabling significant advances in those disciplines. Students will be introduced to this body of knowledge through the analysis of relevant problems and also learn to apply it through the development of computer programs.

## CMPS 112 - (FYDT, FYOC) Introduction to Computing and Information Technology

3 cr.

This course presents foundational concepts and surveys the past, present and future of computing and information technology with an emphasis on the seminal ideas, concepts, inventions and innovations that fuel the Digital Revolution. The sub-disciplines of computing are identified and discussed relative to each other. This course is designed to foster knowledge and abilities needed for gathering, evaluating and disseminating information with an emphasis on digital technology and oral communication. (Credits may not be earned for both CMPS 112 and IT 112.)

## CMPS 134 - Computer Science I

3 cr.

(Co-requisite: CMPS 134L)
An introduction to programming concepts and methodology using an object-oriented programming language (currently Java). Topics include problem analysis, abstraction, modularization, the development and use of algorithms, reuse, and the use of programming constructs including data types, classes, control structures, and methods.

## CMPS 134L - Computer Science I Lab

1 cr.

(Co-requisites: CMPS 134, or as a prerequisite (with departmental permission)
Programming-related activities are undertaken that apply essential concepts from CMPS 134, including problem decomposition, modularization, flow of control, scoping, object-orientation, and algorithm development.

## CMPS 136 - Computer Programming II

3 cr.

(Prerequisite: CMPS 134)
For non-computing majors who want more object-oriented programming experience. Includes data structures, file processing, graphical user interfaces and event-driven programming. May not be used to satisfy the requirements of CMPS or CIS. May not be taken by a student who has credit for CMPS 144.

## CMPS 144 - Computer Science II

3 cr.

(Prerequisites: CMPS 134, CMPS 134L, and either MATH 114 or MATH 142; co-requisite: CMPS 144L)

This course emphasizes object-oriented software development, addressing both software engineering and programming. Topics include modularization, abstraction, encapsulation/information hiding, software reuse, software testing, classic data abstractions (e.g., lists, trees) and algorithms (e.g., sorting, searching), recursion, program correctness, and basic algorithm analysis.

## CMPS 144L - Computer Science II Lab

1 cr.

(Prerequisites: CMPS 134 and CMPS 134L. CMPS 144 is required as a co-requisite, or as a prerequisite with departmental permission.)
Activities are undertaken that apply programming concepts form CMPS 144, including object-orientation, inheritance, polymorphism, iterators, generics, algorithms involving various container structures (e.g., stacks, queues, lists, trees, graphs), analysis of algorithms, and concurrency.

## CMPS 204 - Computer Forensics

3 cr.

(Prerequisite: C/IL 102/102L or its equivalent)
An introduction to the field of computer forensics emphasizing the collection and analysis of both persistent and volatile data from computer systems, networks, and storage media in a manner that is admissible in a court of law. May not be used as a major elective for any major in the Computing Sciences Department.

## CMPS 213 - Sophomore Colloquia I

.5 cr.

(Co-requisite CMPS 134)
CMPS 213 is offered each Fall Semester. Each semester a minimum of five meetings are held where important, emerging, or interesting topics in computing are presented and discussed. The material comes from a variety of sources including, but not limited to, faculty, alumni, invited speakers, students and professional webinars and videos.

## CMPS 214 - Sophomore Colloquia II

0.5 cr.

(Co-requisite CMPS 134)
CMPS 214 is offered each Spring Semester. Each semester a minimum of five meetings are held where important, emerging, or interesting topics in computing are presented and discussed. The material comes from a variety of sources including, but not limited to, faculty, alumni, invited speakers, students, and professional webinars and videos.

## CMPS 240 - Data Structures and Algorithms

3 cr.

(Prerequisite: CMPS 144)
An examination of the issues of data representation, algorithm structure, and encapsulation as they pertain to the development of object-oriented software. Abstract data types studied include stacks, queues, binary trees, n-ary trees, and graphs. Various representation alternatives are analyzed and compared, trade-offs frequently encountered by software developers are discussed.

## CMPS 250 - Machine Organization and Assembly Language Programming

3 cr.

(Prerequisite: CMPS 144)
An introductory study of the organization and architecture of computers through an exploration of various virtual machines. Programming at the assembly-language level and interfacing with software components (primarily written in C). Topics include representation of data and instructions, computer arithmetic, memory hierarchies, instruction sets, addressing modes, digital logic, microprogramming, pipelining, and parallel processing.

## CMPS 260 - Theoretical Foundations of Computer Science

3 cr.

(Prerequisite: CMPS 240)
An examination of the fundamental models and concepts of computation – automata, formal languages, and grammars – and how they are related. Church-Turing thesis; recursive and recursively enumerable sets; unsolvable problems; complexity of algorithms; Chomsky hierarchy.

## CMPS 312 - Web Technology

3 cr.

(Prerequisites: C/IL 102/102L or equivalent, COMM 329, IT 354)

This course covers the fundamental aspects of developing and maintaining Web sites. It provides a thorough coverage of the structure and elements of HTML and JavaScript necessary to create commercial-quality Web sites. Brief coverage will also be given to graphic design and multimedia content. Emphasis will be placed on client-side development although server-side issues will be considered. May not be used as part of any major in the Computing Sciences Department. Cannot be taken by a student who has credit for IT 120 or CMPS 356.

## CMPS 313 - Junior Colloquia I

0.5 cr.

(Co-requisite: CMPS 213)
CMPS 313 is offered each Fall Semester. Each semester a minimum of five meetings are held where important emerging, or interesting topics in computing are presented and discussed. The material comes from a variety of sources including, but not limited to, faculty, alumni, invited speakers, students, and professional webinars and videos.

## CMPS 314 - Junior Colloquia II

0.5

(Co-requisite: CMPS 214)
CMPS 314 is offered each Spring Semester. Each semester a minimum of five meetings are held where important, emerging, or interesting topics in computing are presented and discussed. The material comes from a variety of sources including, but not limited to, faculty, alumni, invited speakers, students, and professional webinars and videos.

## CMPS 330 - (EPW) Information Systems Analysis

3 cr.

(Prerequisite: C/IL 102/102L/C/IL 104 or CMPS 134)
Introduction to concepts and practices of information processing. Computerized system requirements and techniques in providing appropriate decision-making information to management.

## CMPS 331 - Information Systems Development

3 cr.

(Prerequisite: CMPS 330)
A study of system-development methodology and the role played by the systems analyst in developing user-accepted information systems.

## CMPS 340 - Introduction to Database

3 cr.

(Prerequisites: CMPS 144 required, CMPS 240 recommended)
File structures concepts and file processing applications. Topics include file maintenance and storage management; file searching, sorting, and merging; co-sequential processing; index structures; B-trees; hash tables; indexed sequential files; database concepts.

## CMPS 341 - Database Systems

3 cr.

(Prerequisites: CMPS 340 required, CMPS 240 recommended)
An introduction to database management systems with an emphasis on relational database design and applications. It uses an appropriate database package such as ORACLE or PostgreSQL.

## CMPS 344 - Programming Languages

3 cr.

(Prerequisite: CMPS 240)
A study of programming languages from both the theoretical and practical perspectives. A survey of major and developing paradigms and languages is undertaken which includes use of specific languages to broaden the student's experience. Implementation is studied through an introduction to language translation along with a study of run-time models and interfaces with virtual machines.

## CMPS 350 - Computer Architecture

3 cr.

(Prerequisite: CMPS 250)
A study of the logical structure of computer-system organization including a survey of logic and design with an emphasis on functional components. Topics include instruction sets, hard-wired and microprogrammed control-unit designs, memory systems (caches and virtual memory), I/O systems (interrupts, DMA, and channels). Overview and examples of alternative and advanced computer architectures (pipeline, array processors, multiprocessors).

## CMPS 352 - Operating Systems

3 cr.

(Prerequisites: CMPS 240, CMPS 250)
An introduction to the principles of operating systems. Topics include operating system structure, process management, scheduling and dispatching, process synchronization and interprocess communication, memory management, virtual memory, device management, I/O, and file systems.

## CMPS 354 - Data Communications and Networks

3 cr.

(Prerequisite: CMPS 352)
A study of data communication and networking concepts, including distributed-system architectures, electronic interfaces, data-transmission, data link protocols, terminal networks, computer communication, public-data networks, and local-area networks.

## CMPS 355 - Mobile Application Development

3 cr.

(Prerequisite: CMPS 352)
This course deals with the development of software for mobile devices such as smartphones and tablets. Topics include, but are not limited to, graphical user interface design, event-driven software model, resource management, interfacing with sensors, concurrency, database access, and networking.

## CMPS 356 - Web Programming

3 cr.

(Prerequisites: CMPS 240, HTML experience to the level where the students are capable of developing their own Web page)
This course covers all aspects of programming on the World Wide Web. This includes the presentation of HTML, Java, JavaScript and CGI. Topics include advanced HTML (maps, forms, etc.) client-server programming basics as they relate to the Web, Java machine concepts, Java/JavaScript similarities and differences, server-side programming, GIF animations, Web programming resources and environments. (Students may not earn credit for CMPS 356 and IT 356.)

## CMPS 358 - Real-Time Systems

3 cr.

(Prerequisite: CMPS 352)
A study of issues related to systems that interface with the physical world and must meet the timing constraints imposed on them. Topics include: real-time hardware architecture, real-time operating systems, invoking and managing threads and processes, interprocess communications and synchronization, manipulating process priority, concurrent programming, exception handling, software safety, reliability, and fault tolerance.

## CMPS 360 - Analysis of Algorithms

3 cr.

(Prerequisite: CMPS 240)
A survey of methods for designing and analyzing algorithms. Classic algorithms from graph theory, combinatorics and text processing are examined, as are traditional design strategies such as divide-and-conquer, backtracking and dynamic programming. Other topics include NP-completeness and parallel algorithms.

## CMPS 362 - Numerical Analysis

3 cr.

(Prerequisites: CMPS 134, MATH 222)
A survey of numerical methods for solving equations, integration, differentiation, interpolation, differential equations, and linear **algebra, and the analysis of error.**

## CMPS 364 - Theory of Computation

3 cr.

(Prerequisite: CMPS 260)
The development of a theoretical notion of computability and its relationship to Turing computability and recursive functions; the study of the relationships between automata, formal languages and grammars.

## CMPS 370 - Computer Graphics

3 cr.

(Prerequisite: CMPS 240: Co-requisite CMPS 250)
An introduction to the hardware, software and techniques used to generate graphical representations by computer. Two and three dimensional concepts, algorithms and architectures are studied. An essential aspect of the course involves the development of

programs utilizing appropriate APIs (currently OpenGL is emphasized) as a means of developing expertise. Advanced topics may be pursued as appropriate.

## CMPS 372 - Artificial Intelligence

3 cr.

(Prerequisite: CMPS 240)
Problem solving using expert systems, heuristic programming techniques, tree speed-up techniques, and learning mechanisms.

## CMPS 374 - (EPW) Fundamentals of Software Engineering

3 cr.

(Prerequisite: CMPS 240)
An introduction to the concepts of Software Engineering. Stress is placed upon formal models for the design and development of high-quality software. Topics include: project planning, requirements analysis, system design, program design, program implementation, program testing, system testing, system delivery, and maintenance. A group project will be included.

## CMPS 376 - Rapid Prototyping

3 cr.

(Prerequisite: CMPS 136 or CMPS 144)
Some common applications using a database with a visual interface (perhaps Web based) can be successfully treated using Rapid Prototyping (a.k.a. Rapid Application Development). This course will cover the synergy of combining a visual language and a relational database employing rigorous design techniques.

## CMPS 384 - Special Topics

3 cr.

(Prerequisite: as published)
Some recent courses have covered Rapid Prototyping, Real-Time Systems, and Parallel Computing. A syllabus including prerequisites is published prior to the registration period for the course.

## CMPS 393 - Computer Research

3 cr.

(Prerequisite: departmental permission)
A research project carried out by a student under the direction of a faculty member in the department. The results will be prepared in a form suitable for publication. Reader fee.

## CMPS 413 - Senior Colloquia I

0.5

(Co-requisite CMPS 313)
CMPS 413 is offered each Fall Semester. Each semester a minimum of five meetings are held where important, emerging, or interesting topics in computing are presented and discussed. The material comes from a variety of sources including, but not limited to, faculty, alumni, invited speakers, students, and professional webinars and videos.

## CMPS 414 - Senior Colloquia II

0.5 cr.

(Co-requisite: CMPS 314)
CMPS 414 is offered each Spring Semester. Each semester a minimum of five meetings are held where important, emerging, or interesting topics in computing are presented and discussed. The material comes from a variety of sources including, but not limited to, faculty, alumni, invited speakers, students, and professional webinars and videos.

## CMPS 440 - Compiler Design

3 cr.

(Prerequisite: CMPS 344)
Study of techniques and problems involved in constructing compilers. Lexical analysis, syntax analysis, semantic analysis, symbol-table management, code generation, code optimization.

## CMPS 481 - Computer Internship

3 cr.

(Prerequisite: departmental permission)
An extensive job experience in computing which carries academic credit. Prior approval is required; information is available on the department Web site.

## CMPS 490 - (EPW) Capstone Project

3 cr.

(Prerequisite: senior standing, departmental permission)
In this course, students prepare and present individual computer projects to be evaluated by the instructor and their fellow students.

## CNS 101 - (CF) Beginning Chinese

3 cr.

A learner-based, performance-based and task-based approach to Chinese, this course focuses on the development of the students' ability to comprehend and communicate in the Chinese language. It provides training in the skills of listening, speaking, reading, and writing. Introduces aspects of Chinese culture. *Includes activities inside and/or outside the classroom that involve Language Learning Center (language lab) resources.*

## CNS 102 - (CF) Beginning Chinese

3 cr.

(Prerequisite: CNS 101 is normally the prerequisite to CNS102)
A learner-based, performance-based and task-based approach to Chinese, this course focuses on the development of the students' ability to comprehend and communicate in the Chinese language. It provides training in the skills of listening, speaking, reading, and writing. Introduces aspects of Chinese culture. *Includes activities inside and/or outside the classroom that involve Language Learning Center (language lab) resources.*

## CNS 211 - (CF) Intermediate Chinese

3 cr.

(Prerequisites: CNS 101-CNS 102 or equivalent, as determined by instructor)
Emphasizes development of the full range of language skills – reading, listening comprehension, the use of grammatical structures, and oral and written communication. Class will be conducted almost entirely in Chinese. *Includes activities inside and/or outside the classroom that involve Language Learning Center (language lab) resources.*

## CNS 212 - (CF) Intermediate Chinese

3 cr.

(Prerequisites: CNS 101-CNS 102 or equivalent, as determined by instructor; CNS 211 or its equivalent is normally the prerequisite to 212)
Emphasizes development of the full range of language skills – reading, listening comprehension, the use of grammatical structures, and oral and written communication. Class will be conducted almost entirely in Chinese. *Includes activities inside and/or outside the classroom that involve Language Learning Center (language lab) resources.*

## CNS 311 - (CF,D) Advanced Chinese

3 cr.

(Prerequisites: CNS 211-CNS 212 or equivalent, as determined by instructor)
An integrated, learner-focused course that develops reading, writing, listening and speaking along with cultural competency. Conducted only in Chinese. *Includes activities inside and/or outside the classroom that involve Language Learning Center (language lab) resources.*

## CNS 312 - (CF,D) Advanced Chinese

3 cr.

(Prerequisites: CNS 211-CNS 212 or equivalent and consent of instructor; CNS 311 or its equivalent is normally the prerequisite to 312)
An integrated, learner-focused course that develops reading, writing, listening and speaking along with cultural competency. Conducted only in Chinese. *Includes activities inside and/or outside the classroom that involve Language Learning Center (language lab) resources.*

## COA 160 - Coaching Principles

2 cr.

(Formerly PHED 160)
This course will assist prospective coaches as they develop a positive coaching philosophy, learn established coaching principles and methods, and acquire sport management skills. The course uses the American Sport Education Program (ASEP) Coaching Principles curriculum leading to the ASEP coach certification which satisfies many state competency standards for coaches. The course is open to non-coaching minor students.

## COA 202 - Sports Administration

3 cr.

(Formerly PHED 202)
Examines the business of coaching, offering practical approaches to the administrative functions of organizing, planning, leading and controlling. Integrates philosophy and principles into practice.

## COA 203 - Sport First Aid

1 cr.

(Formerly PHED 161)
This course will provide prospective coaches with an understanding of a coaches' role on the athletic health care team, sports injury terminology, and the first-aid care for common athletic injuries. The course uses the American Sport Education Program (ASEP) Sports First Aid curriculum leading to the ASEP Sport First Aid certification and is open to non-coaching minor students.

## COA 205 - Teaching Sports Skills

3 cr.

(Formerly PHED 205)
Students will master the essentials of teaching sports skills and improve their teaching effectiveness. They will learn how to prepare for teaching sports skills, how to introduce, explain, and demonstrate sports skills and use cognitive processes to improve performance.

## COA 208 - Conditioning and Training for Sports

3 cr.

(Formerly PHED 210, PHED 208)
Students will learn how to design effective, individualized training programs by incorporating training basics such as overload, specificity, adaptation and progression. Will include individual differences among athletes, muscular fitness, energy fitness and performance factors.

## COMM 100 - (FYOC) Public Speaking

3 cr.

This is a performance class which emphasizes the theory, composition, delivery, and criticism of speeches. Successful completion of COMM 100 or INTD 117 with a grade of C or better fulfills the public speaking requirement in the University's General Education curriculum. (INTD 117 also fulfills the basic writing requirement.)

## COMM 101 - Communication and Society

3 cr.

This course has been designed to help students understand the communication discipline. It provides an overview of communication theory/effects and explores the fields of journalism, radio, television, public relations and advertising, including the history and practice of these professions and their impact on contemporary society.

## COMM 108 - (FYW) Essential Writing Skills

3 cr.

This course enhances foundational writing abilities and reviews grammar/style using the Associated Press Stylebook standards. In addition, students will explore both well-written and appropriate essays/articles and careless or unethical written expression in the media. Earning a grade of C or better fulfills EP Level I: First-Year Writing GE requirement.

## COMM 109 - G/S/P Skill Set

1 cr.

This self-directed course contains multiple tutorials on American English rules of grammar, spelling and punctuation that are the necessary foundations of written and oral communication. These components will be emphasized in advanced courses within the major. Students must pass a G/S/P exam with a grade of 70 or higher to enroll in core communication courses. It is recommended that students complete this course prior to the second semester of their Junior year.

## COMM 110 - (S) Interpersonal Communication

3 cr.

An investigation and analysis of the process and nature of human communication and its intrapersonal and interpersonal attributes.

## COMM 115 - (EPW) Writing for Communication

3 cr.

(Prerequisite: WRTG 107 or fulfillment of Writing Skills requirement)
An introduction to the major forms of writing for communication professions: corporate, print, radio/television production, public relations and advertising. Students will focus on the development and improvement of writing, research and critical thinking skills. Students must take and pass a grammar exam as part of the course.

## COMM 117 - Foundations of Business Writing and Social Media Communication

3 cr.

(Prerequisite: WRTG 107 or fulfillment of Writing Skills requirement.)
An introduction to the major forms of writing for the business professions, from both a new media as well as legacy media perspective. Students will focus on the development and improvement of writing, research and critical thinking skills.

## COMM 130 - History of Electronic Media

3 cr.

The content of the course will address many humanities-based topics as they are related to mass media. Such topics include media history, media technologies and their effects on cultural practices, economic structures of mass communication, media programming, and the role of media in society.

## COMM 170 - Introduction to Sport Communication

3 cr.

This course explores the multibillion-dollar sport communication industry, including the many ways that individuals, sports organizations and the media interact to inform, persuade and entertain. Special emphasis will be placed on careers in sport communication and the state of the field in the age of video and computer-mediated communication.

## COMM 210 - (EPW) Logical and Rhetorical Analysis

3 cr.

(Prerequisite: COMM 115 or COMM 117 with a minimum grade of "C"; writing requirement course; and COMM 109 or test score.)
A study of the principles of logic and persuasion, analysis of fallacies, and critical examination of the principles of structure in written and oral communication. Practice in briefs and abstracts with an emphasis on precision and clarity.

## COMM 211 - Argumentation and Debate

3 cr.

This course concentrates on the techniques of argumentation, persuasion, debate, and forensics. Focuses heavily on research, case construction and formal analysis.

## COMM 214 - Small Group Communication

3 cr.

An examination of research, techniques, and principles of small-group communication. Topics include problem solving, decision making, conflict resolution, leadership theories, interaction strategies and participant roles.

## COMM 215 - Introduction to Communication Theory

3 cr.

(Prerequisite: A grade of C or higher in COMM 109, COMM 115)
Introduces the rich body of theory and research in human communication. Students will examine theories from the traditional contexts of the field: interpersonal, small group, public, organizational, mass media, intercultural and gender. An emphasis is on applying the various theories to students' communicative lives.

## COMM 221 - Radio Production

3 cr.

An examination of the dynamic industry roles of the radio producer/director. Areas to be studied include production theory and techniques that apply to station and program promotions, advertising, news, and music formats.

## COMM 222 - Television Production

3 cr.

Designed to provide both theoretical background and practical application of television production in and outside the studio. Various format types, production techniques and artistic styles are studied. Opportunity for producing and directing television programs.

## COMM 223 - Radio Journalism

3 cr.

(Prerequisite: COMM 221 or COMM 224 or COMM 328)
With a focus on gathering and preparing news for broadcast (concentrating especially on interviewing techniques), this class will investigate various news formats and styles. At the mid-semester point, the class will begin operating as a news team.

## COMM 224 - (EPW) Media Writing

3 cr.

(Prerequisites: COMM 109, COMM 115)
This course introduces the fundamentals of news judgment, news gathering and writing for print, online, and mobile environments, as well as journalism's role in a democratic society. Students will focus on American English grammar, structure and style to produce digital content for multiple platforms. Associated Press Style, Search Engine Optimization, and apps will be used to create quality content.

## COMM 225 - Advertising

3 cr.

This course explores advertising as an institution in society, utilizing research, media planning, and creative strategies. Students will participate in the formulation of an advertising campaign.

## COMM 227 - Contemporary Public Relations

3 cr.

Principles of the professional practice of modern public relations. Concepts of planning and executing effective communication strategies including message design and distribution for any organization.

## COMM 228 - (D) Intercultural Communication

3 cr.

Designed to provide a framework for understanding diversity in communication patterns among cultures and co-cultures. Topics include high- and low-context patterns, verbal and non-verbal communication across cultures and co-cultures, persuasion, dialects, organization of verbal codes and the structure of conversations.

## COMM 229 - (D) Gender and Communication

3 cr.

This course focuses on interactive relationships between gender and communication in contemporary American society by examining the multiple ways communication in families, schools, media and society in general creates and perpetuates gender roles. The course considers not only what is in terms of gender roles, but also what might be and how students, as change agents, may act to improve their individual and collective lives.

## COMM 230 - Principles of Business Communication

3 cr.

This course introduces students to a range of essential business communication methods and strategies that will foster the development of enhances interpersonal and persuasive skills necessary to successfully communicate to clients and to provide effective leadership within an organization. Topics include gender, intercultural and non-verbal communication, social media, and technology.

## COMM 235 - Introduction to Social Media Strategies

3 cr.

(Prerequisites: Sophomore standing or greater. Students must complete EPI, FYW, FYDT, and FYOC)
This course focuses on social media and how tools associated with it can best be used in the practice of public relations. The course considers how social media fits within the larger new media context, while also providing an overview of tools associated with social media (e.g., Facebook, Twitter, YouTube etc.)

## COMM 236 - Advertising Campaigns

3 cr.

(Prerequisite: COMM 225)
This intermediate course will focus on teaching students to research and develop an advertising campaign. Students will learn about how digital, social and other media are influencing the advertising process. Students will also learn basic research skills needed for the advertising field, such as survey, interview, focus group.

## COMM 237 - Public Relations Writing

3 cr.

(Formerly COMM 226) (Prerequisite: EPW I Course)
This intermediate course will focus on teaching students to think and write strategically for effective PR campaigns. Students will also learn about how digital and social media are influencing public relations production and media relations.

## COMM 238 - Radio Drama

3 cr.

This course is an overview of radio dramas - TV on the radio. We will hear and analyze dramas, comedies, and variety shows from the 1800s to today, discuss theories of radio dramas and their effects on audiences (such as War of the Worlds from 1938), and produce a radio drama.

## COMM 240 - (Q) Communications Research Methods

3 cr.

This course provides a comprehensive introduction to communication research methodologies/applications, including measurement, sampling, focus groups, interviews, survey and experiment, in addition to data collection and analysis. Students will gain an understanding of basic statistical procedures and research methods in the various fields of mass communication through lectures and hands-on assignments.

## COMM 245 - (D) Race & Gender Stereotypes in TV & Film

3 cr.

This course will examine the evolution of race and gender stereotypes depicted in TV and film from the 1960's to the current day. We will examine the impact of the civil rights and feminist movements by viewing films and TV shows and analyze the significance of these changes on American society.

## COMM 250 - Principle Communication Competencies

3 cr.

(Prerequisites: COMM 100 or completion of an EP Foundation course & completion of COMM 115 or instructor/department chair permission)
This course provides a practical blend of writing, speaking, interpersonal, small group and organizational communication concepts to foster an understanding of relating, collaborating and presenting in the professional arena. Necessary competencies for formal and informal leadership provide the framework for examining communication skills in the workplace.

## COMM 260 - Media Criticism

3 cr.

This course introduces students to media criticism - the ability to access, analyze and evaluate media messages with the goal of helping them become more informed, engaged and critical consumers of mass media. Students will utilize a variety of mass communication theories to examine the influence of media in our lives.

## COMM 261 - Videogame Culture & Women

3 cr.

(Prerequisite COMM 108 or equivalent, such as WRTG 105/WRTG 106 or WRTG 107)
Students will study the history of videogames and analyze women's place in that history. We will review the creation of the earliest videogames, the rise of home consoles, and the controversies surrounding videogame violence - with an emphasis on women's roles and gender portrayal.

## COMM 265 - Social Media Communication

3 cr.

(Prerequisites: All non-majors must complete courses in EPII W and COMM 235)
This intermediate course will focus on teaching students to think and write strategically for effective social media campaigns. Students will learn about how digital and Social media are influencing writing and thinking, and how they are creating a new genres of content consumption and participation.

## COMM 279 - Communication Data

3 cr.

(Prerequisites: MATH 005 or DAT score of 10 or higher or chairperson's permission)
Designed to help prepare non-mathematicians to work, reason and communicate in an increasingly data-driven world. Explains standard terminology, simplifies numerical understanding and explores how to use quantitative data to communicate ideas. Emphasizes the common uses of data in business, political and journalistic settings.

## COMM 295 - Intercultural Communication: Ireland

3 cr.

This course explores intercultural communication utilizing culture-specific approaches that focus on Ireland and its people. Students examine the influence of history, geography, politics, language, economics and other factors upon communication within Irish culture. American culture will be discussed to assess communication norms within and between the two cultures. Travel expenses and material fees apply.

## COMM 296 - Travel Writing

3 cr.

(Prerequisite: Sophomore Level Status)
Travel Writing will teach students the introductory multimedia skills needed to write successful travel communication that could be sold to various media outlets. Students will learn to take photos, shoot and edit video, and write various types of posts for various social media and platforms. Students will complete a two-week online course that will help prepare them for travel in their respective countries.

## COMM 310 - Mass Communication Law

3 cr.

(Prerequisite: junior or senior standing)
Analysis and examination of statutory laws, congressional legislation and federal rules and regulations governing the mass media in the United States. Focus on the First Amendment, libel and slander, privacy, copyright, free press/fair trial, obscenity, advertising, antitrust and monopoly, taxation and licensing.

## COMM 311 - Political Communication

3 cr.

The study of rhetorical strategies used by the modern politician. Examination of the evolution of American political rhetoric, focusing upon language, message development, audience analysis, and the influence of modern mass media in shaping political discourse.

## COMM 312 - Organizational Communication

3 cr.

The study of communication behaviors, patterns, and strategies in organizations. Topics include power and politics, organizational cultures, conflict management, decision-making, diversity, and leadership. Historical and contemporary theories of organizing are examined and critiqued from a communication perspective.

## COMM 313 - Nonverbal Communication

3 cr.

A study of the nonverbal aspects of human interaction. Topics include impression management, social influence, form and function in design, proxemics, kinesics, and the symbolic environment.

## COMM 314 - Legal Communication

3 cr.

An examination of specific skills needed to promote effective and meaningful communication by the legal professional and the interface with clients, juries, judges and the non-legal public.

## COMM 315 - The Art of the Pitch

3 cr.

This course teaches students the theory and application of persuasive communication. Students will learn the art of crafting persuasive messages using various techniques and technologies associated with verbal, non-verbal and visual communication. Students will engage in a series of increasingly sophisticated presentations reflecting industry methodology and standards.

## COMM 316 - Communication Ethics

3 cr.

(Prerequisite: COMM 115 or COMM 117 with a minimum grade of "C"; and COMM 109 or test score.)

This course will consider the need for and applications of proper standards by those in today's media. It will also focus on the media's responsibility to be aware of the public they serve. Different faculty may approach this course from various ethical/humanistic perspectives.

## COMM 317 - Digital Audio and Video Production

3 cr.

This course will provide an introduction to producing audio and video content for new technologies such as the Web and digital publication formats. Students will use digital recording and editing equipment to produce projects suitable for new technologies.

## COMM 318 - Multi-Media Presentations

3 cr.

(Prerequisite: COMM 317)
The principles and practices of speaker delivery style when using multimedia to present a message. Message construction and audience analysis will also be emphasized.

## COMM 319 - Sports Writing

3 cr.

An overview of sport journalism including the history of sports journalism, how to conduct sports interviews, sports reporting techniques and how to write game stories, features and columns.

## COMM 320 - Reporting

3 cr.

(Prerequisites: COMM 109, COMM 115, and COMM 224)

Capstone course focusing on reporting for digital and broadcast purposes. Students will focus on in-depth investigative work that includes public records requests, database journalism, and visual storytelling.

## COMM 322 - Advanced Television Production

3 cr.

(Prerequisite: COMM 222)
Building upon the foundation acquired in COMM 222, students pursue specialized projects in producing and directing programs for broadcast, cable and new technologies.

## COMM 323 - Television Journalism

3 cr.

(Prerequisite: COMM 224 or COMM 328)
Broadcast- journalism skills are refined through classroom and outside assignments. Production techniques, including tape editing, are explored. Television news formats are produced.

## COMM 324 - Advanced Newswriting

3 cr.

(Prerequisite: COMM 224)

Intensive training and practice in techniques of reporting and writing news stories and in covering public affairs. Familiarity with journalistic basics and style required.

## COMM 325 - Advertising Copywriting

3 cr.

Students develop two separate creative campaign strategies for hypothetical clients of their own choosing. For these large-budget accounts, students must create copy with a consistent campaign theme.

## COMM 326 - Political Advertising

3 cr.

Critical examination of rhetorical strategies used in 20th- century political campaigning. Case studies and student projects focus on the special uses of broadcast and print media in political advertising.

## COMM 327 - Cases in Strategic Public Relations

3 cr.

(Prerequisite: COMM 227)

Case studies focus on the problems and challenges faced by a variety of organizations. Practical application of creative problem-solving, theory and research in actual organizations.

## COMM 328 - Editing

3 cr.

This course examines the process of preparing copy for print and online publication. Students learn traditional methods of correcting and improving writing, as well as technological skills such as search engine optimization and editing for online media. Headline writing and basic graphic design are also covered.

## COMM 329 - Graphics

3 cr.

This course covers the elements of design in print and online media, including visual communication theory, layout, typography and graphical file formats. Students learn to utilize desktop publishing and graphical editing software in the newspaper/magazine pages, logos and more.

## COMM 330 - Advertising Decision Making

3 cr.

(Prerequisite: COMM 225)
This course will cover the managerial and decision-making processes of advertising and related marketing communications functions. Students will learn the various problems and opportunities faced by advertising decision makers, and the alternative solutions available to handle these situations.

## COMM 331 - Mass Media Management

3 cr.

The multi-faceted roles of managers in the various communication industries are examined. Special attention is given to technical, conceptual and humanistic concerns. Specific areas of study include management of self and personal relations, unions and contracts, community relations, audience analysis and measurement.

## COMM 333 - Methods of Business Communication

3 cr.

(Prerequisites: Completion of an EPII (W) course and COMM 230)
Focuses on oral and written communication in a business environment. Students learn to analyze communication situations, identify stakeholders, develop strategy, and craft professional reports and transactional documents to achieve organizational goals. Students use multimedia software to create industry-standard graphics for professional written communication and deliver successful presentations to diverse audiences.

## COMM 334 - Broadcast Programming

3 cr.

Study of programming strategies, practices, and operations of commercial radio and television stations. Topics include audience research, program acquisitions, scheduling, formats, syndication, promotion, and network-affiliate relationships.

## COMM 337 - Magazine Feature Writing

3 cr.

(Prerequisites: EP2-W or Junior Status)
Students learn the basics of magazine feature writing, including developing their own voices, analyzing magazine demographic markets, writing articles targeted to those demographic markets, and learning techniques to survive as a freelance magazine writer.

## COMM 339 - Social Media & Sports

3 cr.

Students will learn how to use social media platforms to cover sporting events from a journalism perspective. They will also analyze how social media is used to promote athletes and teams, and how historic sporting events might have been covered if social media had existed as it does today.

## COMM 355 - Advertising Leadership Practicum

1.5 cr.

(Prerequisites: COMM 225 or MKT 351 or Permission of instructor)
This upper level advertising course will provide a hands-on opportunity for students to lead the research and development of a real life advertising campaign and/or project for various audiences both on and off campus.

## COMM 365 - Social Media Production

3 cr.

(Prerequisite: COMM 222)
This course teaches students the skills and techniques required for producing and editing digital content for social media. The class will utilize short lectures about the production skills employed to produce video, TV and web content in tandem with hands-on production workshops for various end mediums of social media. (Twitter, YouTube, Facebook, etc.) The end result will be that students acquire the abilities and skills to take on social media production roles in a variety of industries such as Advertising, Public Relations, Film and Television, etc.

## COMM 380 - Advertising Practicum

3 cr.

(Prerequisite: COMM 225 or COMM 325)
Students function as a full-service advertising agency that provides clients with a complete array of services ranging from campaign creation to implementation and evaluation.

## COMM 411 - Persuasion and Propaganda

3 cr.

An in-depth examination of the theoretical foundations and practical applications of those factors which influence the persuasibility of target audiences. Topics include attitudes, beliefs, values, behaviors, appeals and reference groups.

## COMM 415 - Senior Seminar

3 cr.

(Prerequisite: COMM 115 or COMM 117 with a minimum grade of "C"; and COMM 109 or test score; and Senior standing.)
This capstone course will synthesize course work to prepare students for entry into the profession of communication. Emphasis will be placed on the application of Jesuit ideals to the identification and approaches that concerns today's communication industry.

## COMM 422 - Educational Television

3 cr.

Instructional uses of the television medium by public television stations, schools, closed-circuit and cable systems. Types of educational programs are evaluated. Students work on preparing projects that may reflect their own pedagogical interests.

## COMM 425 - Cable Television

3 cr.

A study of cable television and its development and current place in the telecommunications industry. Topics include programming strategies, formats, multiple-system operators, independents, syndication, sales, satellite services, pay-per-view, audience ratings, management and the franchising process. Students develop their own research proposals for establishing new cable channels, networks and services.

## COMM 426 - International Broadcasting

3 cr.

Comparative analysis of national and international media systems throughout the world. Emphasis on their origin, development and operation.

## COMM 427 - PR Agency

3 cr.

(Prerequisites: COMM 115 or COMM 117; and COMM 227, COMM 237 and COMM 327)
COMM 427 is where students apply all you have learned about PR. Students will apply knowledge garnered in other PR classes to develop, complete and present a comprehensive distribution-ready PR plan and materials for an actual client selected by the instructor.

## COMM 428 - Public Relations Campaigns and Competitions

1.5 – 6 cr.

This advanced course gives students the opportunity to develop communication projects for various audiences both on and off campus. These projects will then be entered into competitions.

## COMM 430 - Advanced Business Communication Strategies

3 cr.

(Prerequisites: COMM 117, COMM 230, COMM 315, COMM 333)
This course explores the communication challenges of the modern business environment and instructs students how to develop complex unified communication strategies aimed at a broad range of internal and external stakeholders to advance the objectives of their organizations. A major team based communication planning project is central to this course.

## COMM 433 - Television Criticism

3 cr.

This course will use students' critical skills to comment on television programming through reviews and critical analyses of individual shows. By studying the techniques used to produce television programs, students will develop the skills needed to analyze the content and structure of programs. Another factor to be discussed is the changing environment of program delivery through new technology and what impact this may have on content.

## COMM 435 - Social Media Campaigns

3 cr.

(Prerequisites: COMM 117 or COMM 115, COMM 235, COMM 265 and COMM 365)

COMM 435 is where students will apply the knowledge they have garnered in other social media classes to develop, complete and present a communication plan for an actual client selected by the instructor. The course emphasizes the methods and techniques of social media communication and problem solving.

## COMM 460 - Advertising Competition

3 cr.

(Prerequisites: COMM 225 and COMM 330)
Students function as part of an advertising agency and create an advertising campaign for presentation to the client and the judges at the National Student Advertising Competition sponsored by the American Advertising Federation. This is a two semester course, which serves as a capstone for the Advertising track.

## COMM 480 - Television Practicum

3 cr.

(Prerequisites: COMM 222, COMM 322)
Communication seniors undertake significant projects resulting in broadcast-quality projects suitable for airing by commercial or non-commercial television stations, radio stations or cable systems.

## COMM 481 - Internship

3-6 cr.

(Prerequisites: junior or senior standing, appropriate course work, faculty approval)
Highly recommended for every major, this on-the-job experience is guided by practitioners in the communication field and supervised individually by a faculty member in consultation with the student's advisor and the department chair.

## COMM 482 - Directed Independent Study

3 cr.

(Prerequisite: senior standing)
In consultation with the student’s advisor and department chair, Communication Seniors undertake a significant area of study resulting in a major research paper. Students select a Communication professor whom they wish to direct the study. Provided to augment an area of the student’s interest not substantially covered in available departmental courses.

## COMM 484 - Special Topics

3 cr.

In-depth departmental seminars on selected communication topics meeting the needs and interests of students. Topics vary from semester to semester.

## COMM 499 - Senior Thesis

3 cr.

(Prerequisites: COMM 215 and COMM 316)
An optional research-based written project in which Communication seniors (in consultation with their advisor and department chair) select an issue or problem for scholarly study, undertake significant and meaningful research, and produce a major paper of publishable quality. Students select a Communication professor whom they wish to direct their thesis. Strongly recommended for students planning for graduate school.

## CYBR 110 - Foundations of Cybersecurity

3 cr.

This course is a foundation course that emphasizes a broad array of knowledge, skills, and abilities in cybersecurity. The course material will cover cyberspace and cybersecurity concepts from secure architecture, hardware, software, and protocols to security operations by developing hands-on skills, critical-thinking abilities, and team-building strategies.

## CYBR 250 - Cyber Intelligence

3 cr.

(Prerequisite: CJ 240)
This course will introduce the student to the cyber intelligence operations and Open-source Intelligence (OSINT). The course material will review the history of intelligence activities and techniques, hunting, features/behavior extraction, clustering and correlation, threat actor attribution, tracking, the use of utility trees/matrixes, intelligence and predictions and cyber intelligence analysis, social media intelligence analysis, and mastery over the darknet.

## CYBR 260 - Introduction to Network Security

3 cr.

(Prerequisite: CYBR 110)
The course covers basic security topics, including symmetric and public key cryptography, digital signatures, cryptography hash functions, authentication pitfalls, and network security protocols.

## CYBR 310 - Ethical Hacking

3 cr.

(Prerequisite: CYBR 110)
This course provides students with the knowledge and practice needed to secure information systems against attacks such as virus, worms, and other system weaknesses that pose significant danger to organizational data. Ethical hacking is applied to uncover common techniques used by cybercriminals to exploit system vulnerabilities.

## CYBR 320 - Digital Forensic Investigation

3 cr.

(Prerequisite: CJ 240)
This course will introduce the student to the digital forensic investigation procedures. The course material will review the digital forensics activities and techniques, and how to create formal reports as legal documents for cybercrime on trials.

## DEPT 385H-389H - Honors Tutorial

3 cr. each

An exploration of a topic on an individually directed basis.

## DEPT 487H-489H - Honors Project

Total of 6 cr. across two semesters

An independent project of academic or professional nature culminating in an oral defense before a board of three faculty members.

## DEPT 487S - Magis Honors Project I

3 cr.

The first of a two-semester sequence of an independent project culminating in a written thesis based on the student's original research in a STEM area presented to a committee of three faculty members, one of whom is the student's research mentor.

## DEPT 489S - Magis Honors Project II

3 cr.

The second of a two-semester sequence of an independent project culminating in a written thesis based on the student's original research in a STEM area presented to a committee of three faculty members, one of whom is the student's research mentor.

## DS 201 - (Q) Introduction to Data Science

3 cr.

(Prerequisites: Math placement PT score 14 or higher, MATH 114, or permission of instructor)
An introduction to basic data science workflow following current best practices. This course will introduce students to computational or algorithmic ways to think about and learn from data. Emphasis will be placed on data visualization, exploratory data analysis, and foundational modeling principles and techniques implemented using an appropriate programming language.

## DS 210 - Mathematical Methods for Data Science

3 cr.

(Prerequisites: MATH 221)

This course provides a concise overview of certain mathematical methods that are essential in data science. The primary methods to be covered should come from probability and statistics, networks and graph theory, and optimization. Additional data science relevant topics may be covered at the discretion of the instructor.

## DS 362 - Data-Driven Knowledge Discovery

3 cr.

(Prerequisites: CMPS 240 and DS 201 and DS 210)
This course covers the process of knowledge discovery including data selection, pre-processing, transformation, data mining, evaluation, and validation, with an emphasis on data mining concepts, algorithms, and techniques for common tasks such as association rule learning, classification, regression, clustering, and outlier detection.

## E/CE 240 - Introduction to Computer Engineering

3 cr.

Introduction to combinational and sequential digital-logic circuits. Analysis and design techniques including Boolean algebra and Karnaugh mapping. Use of the computer to simulate digital circuits. Three hours lecture.

## E/CE 340 - Digital Systems

3 cr.

(Prerequisites: E/CE 240)
Analysis and design of advanced digital circuits, implementation of combinational and sequential digital logic, interdependence of hardware and software on computer design, memory and I/O concepts. Three hours lecture.

## EC 261 - Introduction to Business Programming

3 cr.

The focus of this course is to introduce students to business programming using tools such as Visual Basic for Applications (VBA). More specifically, it will train students how to write programs that automate various tasks in Excel, and develop applications that support business decision making. The ultimate goal will be on the creation of applications that will allow managers to make effective data-driven decisions. Advanced Excel skills such as Power Pivot and Pivot tables will also be covered. Students will gain insights into how to continue developing their skills in their careers. (Credits my not be earned for both EC 261 and BUAN 261.)

## EC 362 - Database Management Systems

3 cr.

This course deals with the use of database management systems to support electronic business. Topics include: data modeling; database design and normalization; structured query language (SQL); database application development; integration of web server and database server; distributed data-bases; data warehousing; and data mining. (Credit cannot be earned for EC 362, BUAN 362, and ACC 374)

## EC 372 - Accounting for Electronic Business

3 cr.

(Prerequisites: ACC 252 or ACC 254, junior standing)
Introduces students to the role accounting is playing in today's business environment and how technology has impacted the techniques of accounting and reporting. Computerized models of accounting are used to explore the software tools available for decisions and reporting. Internet business and traditional business transactions will be evaluated. Students will see the effects of control features built into software systems.

## EC 461 - Internet Applications Development

3 cr.

(Prerequisite: EC 362 or permission of instructor)
An introduction to existing and evolving Internet technologies needed for web site development and management. Client and server-side scripts will be utilized to explore their role in interacting with customers, customizing web pages, processing forms, maintaining state, and connecting to data-bases. Course delivery will be primarily conducted through hands-on assignments and projects. (Credits may not be earned for both EC 461 and BUAN 461.)

## EC 463 - Data Mining

3 cr.

(Prerequisite: STAT 252)
Data mining refers to an analytic process designed to explore data (usually large amounts of data - typically business or market related - also known as "big data") in search of consistent patterns and/or systematic relationships between variables, and then to validate the findings by applying the detected patterns to new subsets of data. Hands-on applications of various data mining techniques (e.g. classification, association analysis, clustering, text mining, anomaly detection, feature selections) using data mining software tools will be used. (Credits may not be earned for EC 463, BUAN 463 and OIM 463.)

## ECO 101 - (S) Current Economic Issues

3 cr.

Intended to provide a foundation in economics for non-business students. This course provides analysis of contemporary economic issues relevant to the U.S. economy and the world. Issues such as economic policy, the federal government, budget, recession, inflation, health care, air and water pollution, and regulation of business are studied.

Not a substitute for ECO 153-ECO 154 or other upper-level economics courses. Not open to students with prior credit for ECO 153 or ECO 154. Health Administration and Human Resources majors may substitute ECO 153 and ECO 154 for ECO 101.

## ECO 153 - (S) Principles of Microeconomics

3 cr.

This course centers on the salient characteristics of the modern free-enterprise economy. Topics include the operations of the price system as it regulates production, distribution, and consumption, and as it is in turn modified and influenced by private groups and government.

## ECO 153K - (S) Principles of Microeconomics

3 cr.

This course centers on the salient characteristics of the modern free-enterprise economy. Topics include the operations of the price system as it regulates production, distribution, and consumption, and as it is in turn modified and influenced by private groups and government.

## ECO 154 - (S) Principles of Macroeconomics

3 cr.

This course analyzes the determinants of aggregate economic activity. The main areas studied are the monetary and banking system, the com- position and fluctuations of national income, inflation, and monetary and fiscal policy.

## ECO 154K - (S) Principles of Macroeconomics

3 cr.

This course analyzes the determinants of aggregate economic activity. The main areas studied are the monetary and banking system, the com- position and fluctuations of national income, inflation, and monetary and fiscal policy at an honors-level.

## ECO 303 - (S) The Economics of Environmental Issues

3 cr.

(Formerly ECO 103) (Prerequisite: ECO 153 or permission of the instructor.)
This course provides students with a framework for viewing environmental issues as economic issues. Alternative methods for addressing environmental problems are examined, including "command and control" regulatory policies and "market-based" policies. The evolution of public policies toward the environment is discussed.

## ECO 361 - Intermediate Microeconomics

3 cr.

(Prerequisite: ECO 153)
This course centers on the analysis of production and cost theories. The topics studied are pure competition, monopoly, oligopoly, monopolistic competition and factor pricing. Economics majors take the course in their sophomore year; Finance majors in their junior year.

## ECO 362 - Intermediate Macroeconomics

3 cr.

(Prerequisite: ECO 154)

This course centers on the study of national income accounting, price level fluctuations, issues of unemployment, inflation, full employment, and the impact of monetary and fiscal policy on income level and distribution. Economics majors take the course in their sophomore year; Finance majors in their junior year.

## ECO 363 - (EPW) Applied Econometrics

3 cr.

(Prerequisites: ECO 361, ECO 362, STAT 253 (or STAT 251 and STAT 252); or by permission of the instructor)
This course covers the modeling, estimation, and testing of relationships derived from economic theorizing. Topics include single-equation estimation methods and inference procedures in the context of the classical least-squares model and its extensions, and their applications using economic data. Conducted as a workshop/seminar, the course also covers the various aspects of researching and writing empirical papers as practiced in economics.

## ECO 364 - Labor Economics and Labor Regulations

3 cr.

(Prerequisites: ECO 153-ECO 154)
Analysis of labor supply and demand; measurement and theory of unemployment; occupational choice; wage differentials; labor-market issues and policies; labor legislation.

## ECO 365 - Mathematical Economics

3 cr.

(Prerequisites: ECO 361, ECO 362, STAT 253, MATH 107, MATH 108 or permission of the instructor)
This course studies the methodology of modern economic analysis. Emphasis is placed on developing the rigorous theoretical foundations of micro and macroeconomics using tools of calculus and linear algebra. Topics such as comparative static analysis, general -equilibrium analysis, consumer and firm behavior, intertemporal decision making, decision-making under uncertainty, theory of growth and rational-expectation hypothesis are covered.

## ECO 366 - Economic Geography

3 cr.

(Prerequisites: ECO 153—ECO 154)
Examines the broad areas of the spatial organization of economic systems and the location of economic activity. The discussion encompasses spatial decision-making for manufacturing, service sector, and agricultural enterprises. The role of transportation in determining optimal locations and optimal flow of goods, information, and people will be emphasized. The spatial organization of the growth & development of cities and regions will also be discussed, as will the related topic of the development of nations within the global economy.

## ECO 405 - Introduction to Behavioral Economics

3 cr.

(Prerequisites: ECO 361 and STAT 253)
This course compares the novel insights offered by the discipline of Behavioral Economics with some salient results of classical economic theory. It considers whether the new behavioral models improved our ability to predict and understand choice under certainty and uncertainty, probabilistic judgment, and intertemporal choice. Topics include various behavioral paradoxes, heuristics and biases, loss aversion, and prospect theory.

## ECO 410 - Economic Concepts and Applications

3 cr.

This course provides an introduction to fundamental economic concepts as well as a review of techniques and materials (print, audiovisual, etc.) that can be used to teach economics at the K-12 grade levels. Emphasis is placed on strategies designed to integrate economics into such courses as language arts, mathematics and social studies. This course may not be substituted for ECO 101, ECO 153 or ECO 154.

## ECO 460 - Monetary and Financial Economics

3 cr.

(Prerequisite: ECO 154, FIN 251)
This course emphasizes the interrelations between financial markets, financial institutions and aggregate economic activity. Topics include: an overview of financial institutions, introduction to money and capital markets, fundamentals of interest rates, the money supply process, the conduct of monetary policy, and other topics that occupy the subject matter of money and financial markets.

## ECO 461 - Managerial Economics

Please contact the department chair for course schedules and detailed descriptions. This course is offered infrequently.

## ECO 462 - Urban and Regional Economics

Please contact the department chair for course schedules and detailed descriptions. This course is offered infrequently.

## ECO 463 - Public Finance and Taxation

Please contact the department chair for course schedules and detailed descriptions. This course is offered infrequently.

## ECO 464 - Environmental Economics and Policy

Please contact the department chair for course schedules and detailed descriptions. This course is offered infrequently.

## ECO 465 - Development Economics

3 cr.

(Prerequisites: ECO 153-ECO 154)
This course introduces students to contemporary development economics. Topics include: the concept and measurement of economic development, the problems and prospects of the less developed countries, and the alternative theories and processes of economic development.

## ECO 470 - Law and Economics

3 cr.

(Prerequisite: ECO 361 or permission of the instructor)
This course focuses on the public-policy implications of law and economics. It is based on the notion that legal rules establish implicit prices for different types of behavior and that consequences of these rules can be analyzed using microeconomics. In particular, microeconomic theory is used to analyze economic aspects of property, contracts, torts, and crime.

## ECO 471 - Advanced Macroeconomics

3 cr.

(Prerequisites: ECO 362, ECO 460, ECO 363 or permission of the instructor)

This course centers on the study of recent advances in macroeconomic analysis. Topics include empirical macroeconomic analysis, open-economy macroeconomics, the role of expectations, economic policy and economic growth.

## ECO 490 - Economics Seminar

3 cr.

Advanced study of a special area in economics. Topics and prerequisites vary.

## ECO/IB 351 - (D) Environment of International Business

3 cr.

(Prerequisites: ECO 153-ECO 154 or ECO 101, junior standing)
This course introduces the student to the growing field of international business, touching on the economic, social and political environments of international trade and multinational corporations. International institutions and agencies that impact on international business are discussed and practical aspects of these topics are emphasized.

## ECO/IB 351K - (D) Environment of the International Business

3 cr.

(Prerequisites: ECO 153-ECO 154 or ECO 101, junior standing)
This course introduces the student to the growing field of international business, touching on the economic, social and political environments of international trade and multinational corporations at an honors-level. International institutions and agencies that impact on international business are discussed and practical aspects of these topics are emphasized.

## ECO/IB 375 - International Economics

3 cr.

(Prerequisites: ECO 153-ECO 154 or ECO/IB 351 or permission of the instructor)
This course explains the rationale for international trade and gains from trade and discusses various trade policies. Topics covered in the course include: comparative advantage, free trade and trade restrictions (tariffs, quotas, etc.), the trade policy of the United States, exchange rates and their determinants, balance-of-payments analysis and the significance of multinational corporations.

## EDUC 102 - (FYOC, FYDT) Educational Skills in a Global Society

3 cr.

Within this course students will develop the abilities to gather, evaluate and disseminate information using digital technology and effective oral communication skills.

## EDUC 113 - Reading-Research

3 cr.

A course designed to increase a student's proficiency in reading and research. The following skill areas will be covered: comprehension, vocabulary, expression, critical analysis, library and study skills. Students will be required to develop minimum computer competencies. Lecture and laboratory approaches are utilized with the emphasis on individualized instruction.

## EDUC 120 - (Q) Applied Statistics

3 cr.

(Prerequisite: WRTG 107)

This course is designed to enable students to use statistics to solve problems and to communicate clearly the procedures employed and the results obtained. Students will be required to perform statistical computations and to write as a means of learning the course material. Topics covered include hypothesis testing, correlation, t-test and Chi-square test.

## EDUC 142 - (D,S) Exceptional Lives

3 cr.

A general overview of the field of special education, including historical background, philosophy, history, and legislation. A survey of mental, physical and emotional disabilities and giftedness. An overview of remedial and preventative educational practices with an emphasis on future directions.

## EDUC 144 - Foundations of American Education

3 cr.

This course provides students with an understanding of the teaching profession through an interdisciplinary examination of the historical, political, social, legal, economic, philosophical, and curricular dimensions of education in the United States.

## EDUC 220 - Middle School Concept and Curriculum

3 cr.

This course introduces students to the concept of middle level education. It enables students to make connections with middle level content areas, curriculum, and instructional planning. This course stresses reflective inquiry regarding a philosophy of and planning for middle level education.

## EDUC 222 - (S,EPW) Educational Psychology, PreK-4

3 cr.

This course examines the psychological basis of teaching strategies, classroom environment, learning, motivation, behavior, reinforcement, developmental theory and assessment for students, PreK-4. This course includes an overview of the diagnostic categories of special needs students as well as cognitive skill development to ensure achievement of students with disabilities.

## EDUC 223 - (EPW) Educational Psychology, GR 4-12

3 cr.

(Prerequisite: Clearances required)
This course examines the psychological basis of teaching strategies, classroom environment, learning, motivation, behavior, reinforcement, developmental theory and assessment for students, grades 4-12. It includes an overview of the diagnostic categories of special needs students as well as cognitive skill development to ensure achievement of students with disabilities. *A field component is part of the course requirements.*

## EDUC 240 - Early Language and Literacy - Birth to Age 5

3 cr.

(Co-requisite: EDUC 144 - Clearances required.)
This introductory course to language and literacy development in children, birth through age five is based on theory and research. The course not only explores the characteristics of early language and literacy development within different social and cultural environments but also explores early childhood language arts instructional strategies. *A field component is part of the course requirements.*

## EDUC 241 - Foundations of Literacy Development I

3 cr.

(Prerequisite: EDUC 240 - Clearances required.)
This course will provide students with the knowledge necessary to teach reading and writing to typically developing students as well as students with reading disabilities in grades K-4. The content focus is on Language, Phonology, Phonics, Spelling, and Handwriting. Students will also develop proficiency in the application of research-based methods. *A field component is part of the course requirements.*

## EDUC 242 - Math for PreK-1

3 cr.

(Pre- or Co-requisite: EDUC 144)
This course will help teachers analyze and become knowledgeable of the range and sequence of mathematical concepts, content and skills related to PreK-1 school mathematical topics and learning outcomes. Teaching techniques will emphasize problem solving, discovery learning, hands-on math manipulatives, and real life experiences for young learners.

## EDUC 246 - Interdisciplinary Assessment, Grades 4-12

3 cr.

(Co-requisite: Clearances required)
This course focuses on strategies, methods, and instruments for assessing all students in grades 4-12. Theory to best practice linkages will be stressed for all student populations. *A field component is part of the course requirements.*

## EDUC 250 - Early Development and Intervention

3 cr.

(Co-requisites: EDUC 144)
This course focuses on typical and atypical development (ages birth to 9): cognitive, motor, social-emotional, self-help, and language. A twenty hour field experience in the PreK-4 special education environment will allow students the opportunity to design interventions for children who are demonstrating a developmental delay. *A field component is part of the course requirements.*

## EDUC 252 - Assessment & Evaluation in Early & Primary Education

3 cr.

(Prerequisites: EDUC 144, Required Clearances)
This course will focus on observational and informal strategies, methods, and instruments for assessing the early learner's development in the cognitive, psychomotor, and affective domains. *A field component is part of the course requirements.*

## EDUC 256 - (D) Family, School & Community Relations in a Diverse Society

3 cr.

(Pre- or Co-requisite: EDUC 144)
This course informs the PreK-4 teacher about family systems and the role of families in children's development, and about strategies for becoming cross-culturally competent in work with young children and their families.

## EDUC 280 - Field Experience II

1 cr.

(Prerequisite: EDUC 223)
Students are introduced to types of planning and instruction. Projects are carried out in local schools and agencies through observation, assisted instruction, and oral/written reports. Required clearances: PA criminal record, PA child abuse, FBI fingerprint, and TB test results. *A field component is part of the course requirements.*

## EDUC 310 - Special Topics in Education

1-3 cr.

A series of courses dealing with specific educational issues, theories, ideologies, skills, methods, or other designated topics for individual or group study. Course is offered in accord with student need.

## EDUC 311 - Planning and Instruction, Grades 7-12

3 cr.

(Co-requisite: Clearances required)
This course introduces students to unit planning, lesson planning, and methods of instruction applied in middle level and secondary education classrooms. It addresses the integration of technology to support learning, as well as theories and practices of classroom management. *A field component is part of the course requirements.*

## EDUC 312 - The Secondary School Mathematics Curriculum

3 cr.

This course examines the strategies and content of mathematics curricula in the secondary school and attempts to compare them to major contemporary reform efforts. The course includes a review of secondary-school (junior and senior high school) mathematics.

## EDUC 313 - General Methods and Planning

3 cr.

(Prerequisite: EDUC 222; pre- or co-requisite for EDUC 380)
Methodology for setting direction in the classroom, creating a learning situation, developing the content, reinforcing and evaluating will be covered. Students will be involved with developing plans for teaching.

## EDUC 314 - Specific Subject Methods: World Languages

3 cr.

This course is designed to help students develop an understanding of current theories of foreign language learning through exploration of relevant research and field observations. Students will use their observation experience and theoretical base to design and teach classes of elementary and secondary school students. Special attention is given to implementing Understanding by Design in designing Integrated Performance Assessment Units and to adapting instruction to address needs of K-12 students with disabilities. *This course include a field component. Clearances are required.*

## EDUC 315 - Subject Methods: Citizenship/Communication/English

1 cr.

(Co-requisite: Clearances required)
Utilizing knowledge of planning and teaching, students are guided in the analysis of instruction and assessment in specific content areas of English, communication, and social studies. *A field component is part of the course requirements.*

## EDUC 316 - Subject Methods: Mathematics/Science

1 cr.

(Co-requisite: Clearances required)
Utilizing knowledge of planning and teaching, students are guided in the analysis of instruction and assessment in specific content areas of mathematics and science. *A field component is part of the course requirements.*

## EDUC 339 - Math for Grades 2-4

3 cr.

(Prerequisite: EDUC 242; Co-requisite: Clearances required)
This course helps teachers analyze and become knowledgeable of the range and sequence of mathematical concepts, content and skills related to Grades 2-4. A variety of teaching techniques explored includes problem solving, an integration of hands-on math manipulatives, interdisciplinary planning, cooperative grouping, and the inductive teaching model. This course requires 35 hours in the field.

## EDUC 344 - Integrated Science and Technology, Pre K-4

3 cr.

This course provides opportunities for students to design instructional plans using technology and other techniques based on research regarding how children learn science. The emphasis is on helping candidates plan, deliver and assess for effective Science and Health teaching at the Pre K-4 level following National Science and STEM Standards.

## EDUC 346 - (D) Social Studies for PreK-4

3 cr.

This course is designed to help teachers become knowledgeable of the state and national standards and thematic strands of social studies in the five overarching principles of citizenship, geography, history, economics, and civics/government. This course focuses on developmentally appropriate practice for young learners in the PreK-4 student population.

## EDUC 351 - Methods Across the Integrated Curriculum I

3 cr.

(Pre- or Co-requisites: EDUC 344 or EDUC 346, Required Clearances)
Best practices in pedagogy for PreK-2 classrooms, including developmentally appropriate practices, play, authentic performance, and technology, informs part of this course. Another part of the course allows students to engage in a classroom-teacher-mentored and university-supervised practical experience in a PreK-2 classroom.

## EDUC 357 - Integrated Methods Across Curriculum

3 cr.

(Pre-or Co-requisites: EDUC 344 or EDUC 346, Required Clearances
Students will learn best practices in pedagogy, including developmentally-appropriate instructional practices, classroom management, technology, and professionalism. Part of the course requirements is a field experience that allows students to engage in a classroom-teacher-mentored and university-supervised practical experience in classrooms. *A field component is part of the course requirements.*

## EDUC 358 - Reading to Learn with Trade Books & Texts

3 cr.

(Prerequisite: EDUC 241)
This course will assist students in becoming proficient at integrating literacy-related strategies and practices into instructional routines in content area classrooms. Students will be introduced to a multitude of evidence-based instructional strategies that address the conceptual and textual demands inherent in disciplinary learning.

## EDUC 359 - (D) Introduction to English Language Learning

3 cr.

This course introduces pre-service teachers to the challenges they will face when English language learners are members of their classes. The class will address how to successfully accommodate and integrate these students into class activities and how to assist them in their academic and linguistic development. Students will develop a clearer understanding of the challenges these students face in and out of the school setting.

## EDUC 362 - Psycholinguistics

3 cr.

This course is designed to examine the language development in children as well as correlation between language and cognition. Particular attention will be given to designing educational environments and interactions that facilitate language development in children.

## EDUC 363 - (EPW) Foundations of Literacy Development II

3 cr.

(Prerequisites: Early & Primary Program: EDUC 240, EDUC 241; Middle Level Program: None; Co-requisite: Clearances required)
This course aims to provide students with the content knowledge necessary to teach reading and writing to typically developing students as well as students with reading disabilities. The content focus is on Text Fluency, Vocabulary, Comprehension, and Written Expression. Students will also have an opportunity to develop proficiency in the application of research-based methods that integrate the literacy strands. *A field component is part of the course requirements.*

## EDUC 370 - Inclusionary Classroom Practices, Grades 4-12

3 cr.

(Prerequisites: EDUC 142, EDUC 223; Teacher Candidate Status; Co-requisite: Clearances required)
Emphasis on the middle level and secondary teacher as a member of educational and co-teaching teams. Students will utilize different learning strategies to support students with disabilities in the general education classroom. *A field component is part of the course requirements.*

## EDUC 371 - (EPW) Literacy Strategies in Secondary School

3 cr.

This course is the study of the literacy strategies for speaking, listening, reading, writing, and viewing with emphasis placed on understanding and skills needed by all secondary school students in content areas.

## EDUC 380 - Field Experience III

1 cr.

(Prerequisites: EDUC 280)
This course is closely associated with the methods courses in Secondary Education programs of study. An emphasis is placed on studying teaching techniques and involvement in teacher activities in basic-education schools. As a field experience course, appropriate clearances are required.

## EDUC 445 - Professional Practice Seminar, PreK-4

3 cr.

(Prerequisites: EDUC 351, EDUC 357)
In-depth study of the rationale, theories, and techniques for creating appropriate learning situations in PreK-4 environments and for handling individual and group behavioral problems in productive ways to meet the needs of all students. *Scheduled with EDUC 445, EDUC 456, EDUC 457, EDUC 458 and EDUC 459 during the same student teaching semester.*

## EDUC 450 - Professional Practice Seminar, 4-8

3 cr.

In-depth study of the rationale, theories, and techniques for creating learning situations in Middle Level environments and for handling specific behavioral problems in productive ways to meet the needs of all students. *Scheduled during the same semester with EDUC 452, EDUC 453, EDUC 454 and EDUC 455 as a semester of student teaching.*

## EDUC 452 - Planning in Middle Level Student Teaching (Gr. 4-8)

2 cr.

(Prerequisites: (1) All Education courses in the major; (2) Student Teaching application; (3) Teacher Education Committee approval; (4) Required Clearances: PA Child Abuse, PA Criminal Record; FBI Fingerprint, TB test result, and ACT 24 statement.)

Preparation of actual teaching plans during Middle Level (Gr. 4-8) student teaching requires an application to the Field Director, due March 1 or October 1 for Fall and Spring placements, respectively. Current/valid clearances required: PA criminal record check; PA child abuse, FBI fingerprint, TB result and ACT 24 statement.

## EDUC 453 - Instruction in Middle Level Student Teaching (Gr. 4-8)

3 cr.

(Prerequisites: (1) All Education courses in the major; (2) Student Teaching application; (3) Teacher Education Committee approval; (4) Required Clearances: PA Child Abuse, PA Criminal Record; FBI Fingerprint, TB test result, and ACT 24 statement)
Involvement in implementing methods and techniques. Middle Level (Gr. 4-8) teaching on a full-time basis under the supervision of classroom teachers and University supervisors.

## EDUC 454 - Managing Classrooms in Middle Level Student Teaching (Gr. 4-8)

2 cr.

(Prerequisites: (1) All Education courses in the major; (2) Student Teaching application; (3) Teacher Education Committee approval; (4) Required Clearances: PA Child Abuse, PA Criminal Record; FBI Fingerprint, TB test result, and ACT 24 statement.)
Involvement in the management of learning situations during Middle Level (Gr. 4-8) student teaching.

## EDUC 455 - Professional Growth in Middle Level Student Teaching (Gr. 4-8)

3 cr.

(Prerequisite(s: (1) All Education courses in the major; (2) Student Teaching application; (3) Teacher Education Committee approval; (4) Required Clearances: PA Child Abuse, PA Criminal Record; FBI Fingerprint, TB test result, and ACT 24 statement)
The demonstration of professional growth during student teaching as evidenced by professional behavior and skills, a commitment to improvement, and ability to relate to others. This will include attendance and participation in a weekly seminar to analyze and discuss professional considerations and student teaching problems. *Includes community-based learning component.*

## EDUC 456 - Planning in Early/Primary (PreK-4) Student Teaching

2 cr.

Preparation of actual teaching plans during *early/primary grades (PreK4) student teaching. Student teaching requires an application to the Field Director, due March 1 or October 1 for Fall and Spring placements, respectively. Current state police clearance, child abuse clearance, FBI fingerprint clearance, TB result, and ACT 24 statement are required.*

## EDUC 457 - Instruction in Early/Primary (PreK-4) Student Teaching

3 cr.

Involvement in implementing methods and techniques. Early/primary (PreK-4) student teaching on a full-time basis under the supervision of classroom teachers and University supervisors.

## EDUC 458 - Managing Classrooms in Early/Primary (PreK-4) Student Teaching

2 cr.

Involvement in the management of learning situations during early/primary (PreK-4) student teaching.

## EDUC 459 - Professional Growth in Early/Primary (PreK-4) Student Teaching

3 cr.

The demonstration of professional growth during student teaching as evidenced by professional behavior and skills, a commitment to improvement, and ability to relate to others. This will include attendance and participation in a weekly seminar to analyze and discuss professional considerations and student-teaching problems. *Includes community-based learning component.*

## EDUC 465 - Seminar in Educational Studies

3 cr.

(Prerequisites: Students must have completed 15 credits in Education according to the Educational Studies Minor sequence.) This seminar is a capstone experience for students enrolled in the Minor in Educational Studies. Students will demonstrate their knowledge in Educational Studies through an original research projects of their choice and under the mentorship and supervision of an Education Department faculty member.

## EDUC 475 - Professional Seminar

3 cr.

In-depth study of the rationale, theories, and techniques for creating a situation where learning can take place and for handling specific individual and group behavior problems in productive ways. EDUC 475, EDUC 476, EDUC 477, EDUC 478 and EDUC 479 *must be scheduled during the same semester. Collectively, they comprise a semester of student teaching.*

## EDUC 476 - Planning in Secondary Student Teaching

2 cr.

Preparation of actual teaching plans during secondary student teaching. Application to field director required. EDUC 475, EDUC 476, EDUC 477, EDUC 478 and EDUC 479 *must be scheduled during the same semester. Collectively, they comprise a semester of student teaching. Appropriate clearances are required.*

## EDUC 477 - Instruction in Secondary Student Teaching

3 cr.

Involvement in implementing methods and techniques. Secondary student teaching on a full-time basis under the supervision of classroom teachers and University supervisors. EDUC 475, EDUC 476, EDUC 477, EDUC 478 and EDUC 479 *must be scheduled during the same semester. Collectively, they comprise a semester of student teaching.*

## EDUC 478 - Managing Classrooms in Secondary Student Teaching

2 cr.

Involvement in the management of learning situations during secondary student teaching. EDUC 475, EDUC 476, EDUC 477, EDUC 478 and EDUC 479 *must be scheduled during the same semester. Collectively, they comprise a semester of student teaching.*

## EDUC 479 - Professional Growth in Secondary Student Teaching

3 cr.

The demonstration of professional growth during student teaching as evidenced by professional behavior and skills, a commitment to improvement, and ability to relate to others. This will include attendance and participation in a weekly seminar to analyze and discuss professional considerations and student-teaching problems. *Includes community-based learning component.* EDUC 475, EDUC 476, EDUC 477, EDUC 478 and EDUC 479 *must be scheduled during the same semester. Collectively, they comprise a semester of student teaching.*

## EE 240L - Introduction to Computer Engineering Lab

1 cr.

(Formerly EE 243L- Digital Systems Lab)
Introduction to the design, construction and testing of digital systems including microprocessors and /or microcontrollers, motor drive, sensing and timing circuits. (Credits may not be earned for EE 240L and EM 243L.) Two hours Laboratory.

## EE 241/EE 241L - (EPW) Circuit Analysis

4 cr.

(Prerequisites: MATH 221)
Analysis of resistive networks, sources, op-amps, capacitors and inductors. Kirchhoff's Laws, Mesh and Nodal Analysis, Superposition, and Thevenin-Norton equivalent circuits. Transient responses of RC, RL, and RLC circuits. AC steady state. Computer assisted solutions using Multisim and Maple. Three hours lecture and two hours laboratory.

## EE 250/EE250L - Computational Tools for Physics and Engineering

4 cr.

(Prerequisites: ENGR 150, PHYS 140/PHYS 140L)
This course covers the basic computational tools needed by scientists and engineers. Included are tools for drafting (AutoCAD), data collection (Labview, C) and Data analysis (Mathematica, Matlab, Maple, Excel and MathCAD). 2.5 credits lecture and 1.5 credits lab.

## EE 343/EE 343L - Electronic Circuits I

4 cr.

(Prerequisite: EE 241/EE 241L)

Modeling, analysis, and applications of semiconductor diodes, bipolar junction and field-effect transistors in analog circuits. Analysis of non-ideal op-amps. Amplifier biasing, small-signal analysis, design and frequency response. Elementary bipolar and MOSFET logic circuits. Circuit simulation using Multisim. Introduction to LabView software. Three hours lecture and two hours lab. (Credit may not be earned for EE 343/EE343L and EM 343/EM 343L.)

## EE 344/EE 344L - Electronic Circuits II

4 cr.

(Prerequisite: EE 343/EE 343L or EM 343/EM 343L)
Advanced transistor amplifier analysis and design, feedback effects. Introduction to transistor level design of CMOS op-amp and digital circuits. Design and analysis of power amplifiers, analog filters, oscillators, A/D and D/A converters, and electronic sensors. Extensive use of Multisim for circuit simulation. Design project using LabView. Three hours lecture and two hours lab. (Credit may not be earned for EE 344/EE 344L and EM 344/EM 344L.)

## EE 346 - Digital Signal Processing

3 cr.

(Prerequisites: EE 241/EE 241L, E/CE 240)
A study of discrete-time signals and systems, convolution, z-transform, discrete Fourier transform, and FFT algorithms. Analysis and design techniques for digital filters and their realizations. Emphasis will be on the use of computer-aided interactive digital-signal processing programs for several projects on signal analysis and filter design. Three hours lecture.

## EE 447 - Electromagnetics I

3 cr.

(Prerequisite: PHYS 270/PHYS 270L; pre- or co-requisite: ENGR 350)
Vector calculus, electrostatics (Coulomb's law, E-fields), Gauss's law, Maxwell equations, Gauss's law, potentials, electric dipoles, Energy density in electrostatic fields, Electric fields in material space, dielectrics; Boundary conditions, Poisson's, Laplace's equations; Uniqueness theorem, resistance and capacitance, method of images, Magnetostatics, Biot-Savart's Law, magnetic forces, vector potentials, magnetic flux density. (Credit cannot be earned for EE 447 and PHYS 447)

## EE 448 - Electromagnetics II

3 cr.

(Prerequisite: EE 447 or PHYS 447)
Magnetic materials, Ampere's law, Faraday's law, vector potentials, Magnetic forces, Magnetic dipoles, Magnetization, Inductors, Magnetic energy, Magnetic circuits; Maxwell's equations, electromagnetic wave propagation, plane waves, power propagation; Reflection/Transmission/Polarization; Transmission lines; Waveguides, resonators; Radiation, Hertzian dipoles, antennas; Relativistic electromagnetics, Maxwell's equations unified. (Credit cannot be earned for EE 448 and PHYS 448.)

## EE 448L - Electromagnetics Design Laboratory

1 cr.

(Co-requisite: EE 448)
Laboratory designed to emphasize and reinforce the experimental basis of electromagnetism. Multi-week projects require the student to perform experiments that measure fundamental electrical constants, the electrical and magnetic properties of matter, and the properties of electromagnetic waves. Two hours laboratory. (Credit cannot be earned for EE 448L and PHYS 448L.)

## EE 449/EE 449L - (EPW lab only) Embedded Systems

3 cr.

(Prerequisites: EE 344/EE 344L or EM 344/EM 344L)

Microprocessor programming and interfacing; data acquisition, manipulation and transmission; microprocessor support devices and common computer interfaces. Periodic written and oral presentations are required. (Credit may not be earned for EM 449/EM 449 and EM 449/449L.) One hour lecture and three hours laboratory.

## EE 450 - Control Systems

3 cr.

(Prerequisite: EE 241/EE 241L)
Models of physical systems using Laplace transforms and state variable methods. Structure of control systems, block diagram reduction, transfer functions. System transient characteristics and steady-state error, disturbance rejection, and sensitivity. Control system analysis; stability, root locus, Bode and Nyquist methods. Simulation and design using MATLAB. Three hours lecture.

## EE 450L - Control Systems Laboratory

1 cr.

(Prerequisites: EE 241/EE 241L. Co-requisite EE 450)
Control system experiments relevant to the engineer will be conducted with topics to include actuators and sensors, model-based design, PID controller design, state feedback control, linearization, stability, and root locus analysis.

## EE 451 - Communication Systems

3 cr.

(Prerequisites: ENGR 350; pre-or co-requisite: EE 344/EE 344L)
An understanding of the basic concepts and principles of analog and digital communication systems and performance of these systems in the presence of noise. Qualitative and quantitative analysis as well as computer tools (MATLAB) will be employed in solving selected communication theory and systems problems. Three hours lecture.

## EE 454 - Robotics Design Project and Professional Practice

3 cr.

(Prerequisites: EE 449/EE 449L, EE 450)
Students design a self-contained intelligent robot required to carry out a complex task. Each project involves creative conception, design, development, evaluation, economic constraints, reliability and safety. Written and oral presentations. Three hours lecture.

## EE 475 - Digital Image Processing

3 cr.

(Prerequisites: PHYS 141 or PHYS 121 and CMPS 134)
Digital image processing is a modern scientific and engineering technique employed to enhance and extract details of images in diverse fields such as medicine, military, industry, and artistic photography. This course will make use of the Matlab programming package for algorithmic development. The student will develop algorithms and implement code for automated image analysis. (Credits may not be earned for both PHYS 475 and EE 475.)

## EE 484 - Superconductivity Devices and Circuits

3 cr.

(Prerequisites: EE 447, ENGR 252)
A course designed for students with interest in super-conductivity. Strong background in calculus, electromagnetics and solid-state devices is necessary. Topics to be discussed: perfect conductivity, the classical model of superconductivity, and direct applications; the quantum model of super-conductivity, Josephson junctions and super-conducting devices (SQUIDs). Group projects (literature search and brief presentations at the end of the term) are assigned.

## EM 243L - Digital System Design Laboratory

1 cr.

Introduction to the design, construction and testing of digital systems including microprocessors and /or microcontrollers, motor drive, sensing and timing circuits. Two hours Laboratory. (Credit may not be earned for EM 243L and EE 240L.)

## EM 343/EM 343L - Electronic Circuits I

4 cr.

(Prerequisite: EE 241/EE 241L)
Modeling, analysis, and applications of semiconductor diodes, bipolar junction and field-effect transistors in analog circuits. Analysis of non-ideal op-amps. Amplifier biasing, small-signal analysis, design and frequency response. Elementary bipolar and MOSFET logic circuits. Circuit simulation using Multisim. Introduction to LabView software. Three hours lecture and two hours lab. (Credit may not be earned for EM 343/EM 343L and EE 343/EE 343L.)

## EM 344/EM 344L - Electronic Circuits II

4 cr.

(Prerequisite: EE 343/EE 343L or EM 343/EM 343L)
Advanced transistor amplifier analysis and design, feedback effects. Introduction to transistor level design of CMOS op-amp and digital circuits. Design and analysis of power amplifiers, analog filters, oscillators, A/D and D/A converters, and electronic sensors. Extensive use of Multisim for circuit simulation. Design project using LabView. Three hours lecture and two hours lab. (Credit may not be earned for EM 344/EM 344L and EE 344/EE 344L.)

## EM 351 - Principles of Management

3 cr.

(Prerequisite: junior standing)
Survey course examines key aspects of organizations and their management – dynamic environments, organization design and structure, roles/functions of managers, managing technology and change, global management, and alternative types of organizations. This course examines the expanding role of the manager from planning, organizing, controlling and directing, to the knowledge and skills involved in managing and working with a diverse workforce. (Credit may not be earned for EM 351 and MGT 351.)

## EM 449/449L - Computer Interfacing

3 cr.

(Prerequisites: EE 344/EE 344L or EM 344/EM 344L)
Microprocessor programming and interfacing; data acquisition, manipulation and transmission; microprocessor support devices and common computer interfaces. Periodic written and oral presentations are required. One hour lecture and three hours laboratory. (Credit may not be earned for EM 449/EM 449L and EE 449/EE 449L.)

## EM 455 - Business Policy & Strategy

3 cr.

(Prerequisites: senior standing, FIN 251, OIM 352, MGT 352, MKT 351)
This is the capstone course for all Business majors. Concepts and skills developed in the prerequisite courses are integrated and applied to the overall management of an organization. Topics will include setting objectives, designing strategic plans, allocating resources, organizational structuring and controlling performance. (Credit may not be earned for MGT 455 and EM 455.)

## EM 462 - Project Management in Organizations

3 cr.

(Prerequisite: MGT 351 or EM 351)
This course will examine advanced project-management concepts from all phases of the project lifecycle (from requirements-specification through post-project assessment). Special emphasis will be placed on understanding projects within the context of complex organizational settings by utilizing an open-systems perspective. Linkages with more permanent administration structures within the organization will be reviewed. (Credit cannot be earned for MGT 462 and OIM 462.)

## ENGR 150 - (FYOC, FYDT) Foundations of Physics and Engineering

3 cr.

This physics and engineering cornerstone course will cover foundational topics including science literacy, effective laboratory investigations, basic programming skills, data analyses, micro-processing, and professional ethical standards. After completing the course, the student will be proficient in oral communication skills and the use of digital technology through assignments and projects relevant to the physicist and engineer. (Students may not receive credits for PHYS 150 and ENGR 150.)

## ENGR 250 - Engineering Mechanics - Statics

3 cr.

(Prerequisites: MATH 221)
In this introductory ME course, students mainly learn the statics of particles and that of the rigid bodies. The main focus is to train students in making free-body diagrams, writing equilibrium equations and apply that knowledge in solving equilibrium problems that are ubiquitous in ME systems.

## ENGR 251 - Engineering Mechanics-Dynamics

3 cr.

(Prerequisite: ENGR 250 ; pre- or co-requisite: MATH 222)
Kinematics of particles and rigid bodies which include linear, curvilinear, angular and relative motions; inertia forces, impulse, momentum, work, energy and power; mechanical vibrations. Three hours lecture.

## ENGR 252 - Solid State Devices & Power Electronics

3 cr.

(Prerequisites: ENGR 250, MATH 222)
Semiconductor basics, Carrier Transport, Excess carriers in semiconductors, P-N junctions and diodes; Field Effect and Bipolar Junction Transistors (FETs & BJTs). Power Schottky diodes, Power MOSFETs, Power BJTs, and Concepts of power distribution.  Three hours lecture Three hours lecture.

## ENGR 253L - Computer Aided Design (CAD) I

1 cr.

An introduction to the methods of drafting and design using computer-aided techniques. Topics include plane geometry construction, projection theory, sectional views, dimensioning, tolerancing, wireframe, solid modeling, rendering and Boolean operations. Extensive use will be made of commercially available CAD software packages. Two hours laboratory.

## ENGR 254L - Computer Aided Design (CAD) II

1 cr.

(Prerequisite: ENGR 253L)
An introduction to the theory and practice of computer aided design, modeling, and analysis, as well as the theory and practice of the Finite Element Method of multiphysics analysis of components and structures. Extensive use will be made of commercially available CAD and FEM software packages. Two hours laboratory.

## ENGR 350 - Applied and Engineering Mathematics

3 cr.

(Prerequisite: MATH 222, PHYS 140/PHYS 140L)
This course derives and solves first and second-order ordinary and partial differential equations as applied to physical systems. Fourier series, Fourier transforms, and Laplace Transforms are included; as well as, special functions, such as Bessel and Legendre. MAPLE and MATHEMATICA software are utilized. (Credit cannot be earned for ENGR 350 and PHYS 350) Three hours lecture.

## ENGR 352 - Statistical and Engineering Thermodynamics

3 cr.

(Prerequisite: PHYS 270/PHYS 270L or PHYS 142)
Derivation of Thermodynamics from probability theory and atomic physics; Laws of Thermodynamics; Maxwell relations; chemical potential and phase changes; refrigerators and heat pumps; theory of gasses and theory of solids. Special topics dependent upon interests of majors represented. (Credit cannot be earned for ENGR 352 and PHYS 352.) Three hours lecture.

## ENGR 365 - Introduction to Solid State Physics

3 cr.

(Prerequisites: PHYS 120 or ENGR 252 (EE majors), ENGR 350)
A physics course designed for senior Physics and Electrical Engineering majors and focusing on the Quantum Theory of solids including: fundamentals of crystals, wave diffraction in crystals, reciprocal lattices, crystal binding, phonons and phonon scattering, free-electron Fermi gases, energy bands, periodic potentials, semiconductor theory, superconductors, quantum theory of diamagnetism, optical processes in semiconductors and optoelectronic devices, quantum mechanics and electronic structure of graphene, graphene-based nanostructures, quantum electronic devices. (Credits may not be earned for both PHYS 365 and ENGR 365.)

## ENLT 103 - Children’s Literature

3 cr.

A broad study of literature for children since 1800, with the emphasis on American works since 1950, including aesthetic consideration of the art and design of picture books. Works for children up to the age of 12 are considered.

## ENLT 120 - (CL) Introduction to Fiction

3 cr.

An exploration of the nature of prose fiction, its elements and techniques. The emphasis is critical rather than historical. The range of works and the specific selections may vary with the individual instructor.

## ENLT 121 - (CL) Introduction to Poetry

3 cr.

An exploration of the nature of poetry, its value, aims, and techniques. The emphasis will be critical rather than historical. The range of poems and the specific selections may vary with the individual instructor.

## ENLT 122 - (CL) Introduction to Drama

3 cr.

An exploration of the nature of drama, its types, techniques, and conventions. The emphasis will be critical rather than historical. The range of plays and the specific selections may vary with the individual instructor. This course may be counted toward the Theatre major, minor or track.

## ENLT 123 - (CL) Masterworks of Western Civilization

3 cr.

Study of masterpieces of literature from the Hebrew Old Testament and classic Greek to the modern European, illuminating the development of Western civilization.

## ENLT 124 - (CL, W) The Art of Fiction

3 cr.

(Prerequisite: Satisfaction of the Written Communication requirement WRTG 107 or equivalent)
This class aims to provide students with an understanding of the structure of the short story, novella, and novel, and to foster an appreciation of fiction as art. Significant class time will be devoted to the process of writing analytical papers about fiction.

## ENLT 125 - (CL) Classic American Stories

3 cr.

This course will examine representative examples of the American short story from the 19th century to the present. Emphasis will be placed on the significance of individual works, but some consideration will be given to the evolving American milieu. Readings will include Hawthorne, Poe, Crane, Malamud, and Oates.

## ENLT 126 - (CL,D) Introduction to Irish Culture

3 cr.

An exploration of Irish culture by means of the island's major works of mythology, history, religion, folk story, fairy tale, song, verse, drama and fiction. All readings in English.

## ENLT 127 - (CL) Myth of the Hero

3 cr.

Mythic materials are examined to discover the underlying heroic archetypal patterns. Then modern literature is examined in the light of the same mythic patterns.

## ENLT 129 - (CL, D) Literature and Social Justice

3 cr.

An introductory study of drama and fiction analyzing issues of social justice and the social, political, and/or structural dimensions of these issues which have been used to impede the establishment of social justice. Topics studied may include race, gender, class, sexual orientation, ability issues, age-ism, and war/violence.

## ENLT 140 - (CL) English Inquiry

3 cr.

An exploration of fiction, poetry, and drama. The approach is inductive; the aims are a greater understanding of literature, and an introduction to techniques of literary scholarship, theory, and research.

## ENLT 210 - (CL) Modern Poetry

3 cr.

Some previous study of poetry expected. Modern poets ranging from Frost and Stevens to Bishop and Larkin are examined. Major emphasis is placed on close readings of representative works and historical and cultural contextualization.

## ENLT 212 - (CL) Masters of Darkness

3 cr.

This course will survey a significant sampling of the short works of three of America's most famous "dark Romantic" writers: Melville, Hawthorne, and Poe. Consideration will be given to the historical milieu and the authors' responses to the problems and promises of the American experience.

## ENLT 214 - Macabre Masterpieces

3 cr.

A survey of English and American horror fiction which focuses on this mode of writing as a serious artistic exploration of the human mind, particularly abnormal psychology. Readings will include works by Mary Shelley, Edgar Allan Poe, Robert Louis Stevenson, Joseph Conrad, and Bram Stoker.

## ENLT 215 - (CL) Literature of the Absurd

3 cr.

Focusing on literature from 1850 to the present, this course will examine fiction, drama, and poetry that reflect a general sense of disintegrating values and lost religious beliefs. Readings will include works by Poe, Byron, Hardy, Stevenson, Conrad, Williams, Hemingway, and Beckett.

## ENLT 220 - (CL) Shakespeare

3 cr.

An introduction to the works of William Shakespeare, including forays into each of the major dramatic genres (comedy, tragedy, history, and romance). Consideration will be given to the biographical and cultural contexts of individual works. This course may be counted toward the Theatre major, minor or track.

## ENLT 221 - Woody Allen

3 cr.

This course examines the films, the published screenplays, the volumes of short prose, and assorted interviews and articles. We will examine some of Woody Allen's sources, such as Plato, Shakespeare, Joyce, and Bergman. Our approach will be historical and analytical.

## ENLT 222 - (CL,D) Graham Greene's Travelers

3 cr.

Detailed study of several privileged characters who exchange the familiar comforts of home for the disorienting complexities of the post-colonial world. Encountering social unrest in Africa, Latin America, Haiti, and French Indo-China, Greene's protagonists abandon their aloof positions and confront the personal and ethical dilemmas raised by their situations.

## ENLT 224 - (CL,D,EPW) Perspectives in Literature About Illness

3 cr.

This course will explore the narrative conventions of both the (literary) life story and the (scientific) case history as a means of analyzing both the characters involved in literary depictions of illness and the ways in which they perceive and understand others involved in the same healthcare event.

## ENLT 225 - (CL,D) Writing Women

3 cr.

(Theory Intensive)
Organized around issues raised in Virginia Woolf's *A Room of One's Own* and Carolyn Heilbrun's Writing a *Woman's Life*, and informed by the ideas of British Marxist, French Psychoanalytic, and American traditional feminism, this course examines poetry and fiction from Sappho and Mary Shelley to Jean Rhys and Adrienne Rich.

## ENLT 226 - (CL,D) Novels by Women

3 cr.

A study of novels by and about women. The aim is to expand students' understanding of women's experiences as expressed by women writers.

## ENLT 227 - (CL,D) Frankenstein's Forebears

3 cr.

(Theory Intensive)
An interdisciplinary exploration of the influential lives and works of Mary Wollstonecraft (feminist, memoirist, and novelist); William Godwin (anarchist philosopher and novelist); their daughter, Mary Shelley (author of *Frankenstein*); and her husband, Percy Bysshe Shelley (Romantic poet and erstwhile political activist).

## ENLT 229 - (CL) The Cross-Cultural Novella

3 cr.

(Prerequisites: Satisfaction of the Written Communication requirements WRTG 107 or equivalent. One ENLT course with a number between 120 & 179 or equivalent)
This course is designed, first, to foster an understanding and appreciation of the novella as a distinct literary form; second, to introduce the student to the literature of a variety of countries and cultures; and third, to enable the student to write literary analyses of this form of comparative literature.

## ENLT 230 - (CL) American Romanticism

3 cr.

(Area A-1)
This course will deal with representative short works of America’s six major Romantic authors: Emerson, Thoreau, Whitman, Hawthorne, Melville, and Poe.

## ENLT 231 - (CL) Shakespeare's Comedies

3 cr.

(Prerequisite: One 100 – level ENLT Course)

A consideration of Shakespeare's dramatic work in the comic sub-genres of romantic comedy, farce, and pastoral. Students will read seven plays, usually *Two Gentlemen of Verona, Comedy of Errors, Love's Labor's Lost, The Taming of the Shrew, The Merchant of Venice, Much Ado About Nothing,* and *As You Like It.*

## ENLT 232 - (CL) Shakespeare's Tragedies

3 cr.

(Prerequisite: One 100 – Level ENLT Course)
A consideration of Shakespeare's dramatic work in the tragic sub-genres of revenge tragedy, romantic tragedy, de casibus tragedy, and political tragedy. Students will read seven plays, usually *Titus Andronicus, Romeo and Juliet, Julius Caesar, Hamlet, Macbeth, Antony and Cleopatra, and Coriolanus.*

## ENLT 233 - (EPW, CL) Imagining Native Americans

3 cr.

(Prerequisites: ENLT with a # between 120 & 179)
The first half of the course begins with the Pocahontas stories of the colonial era and moves on to captivity narratives, autobiographies, and relevant prose fiction; the second half considers Hollywood portrayals of 'cowboys and Indians' & contemporary films by Native American filmmakers.

## ENLT 234 - (CL) Camelot Legend

3 cr.

(Area B-1)
This course will examine the development of Arthurian legend-tales of knights and ladies associated with the court of King Arthur from its early origins in Celtic and Latin medieval literature, through medieval romances and histories, culminating in Malory's *Morte D'Arthur*.

## ENLT 235 - (CL) Literature in the Age of Chaucer

3 cr.

(Area B-1)
This course will explore 14th-century non-dramatic vernacular literature. In addition to Chaucer, authors studied may include Langland, Kempe, and the Pearl Poet.

## ENLT 236 - (CL) The Romantic Protest

3 cr.

(Area B-2)
A survey of the first half of the British Romantic period. Readings will include Blake, Wordsworth, Coleridge and at least three "minor" writers of this era. Discussions will focus on the Romantic imagination, the role of nature in Romantic mysticism, and Romantic notions concerning heightened sensations and altered realities.

## ENLT 237 - (CL) The Darker Romantics

3 cr.

(Area B-2)
A survey of the second half of the British Romantic period. Readings will include Byron, Percy Shelley, Keats, and at least three "minor" writers of this era. Discussions will focus on the waning of the "Romantic religion" of Blake, Coleridge, and Wordsworth in an increasingly prosperous, skeptical, and secularized era.

## ENLT 239 - (CL,D) The Irish Short Story

3 cr.

(Area B-3)
For two centuries, Irish short story writers have represented the comedy and tragedy of Irish experience and simultaneously have fashioned the medium into one of our most flexible and innovative art forms. In historical and critical contexts, we examine the work of forth authors, emphasizing Joyce, O'Connor, O'Faolain, and O'Flaherty.

## ENLT 240 - British Literature: Medieval and Renaissance

3 cr.

(Area B-1)
A detailed study of representative works and authors from the Anglo-Saxons to the 17th century. Though the emphasis will be on an intensive study of major works in their literary and cultural context, consideration will be given to minor writers as well.

## ENLT 241 - British Literature: Restoration and 18th Century

3 cr.

(Area B-2)
Study of a select group of English and Anglo-Irish authors whose works were first published between 1660 and 1776. Discussions and assignments will emphasize literary history, critical analysis, and sociopolitical contexts.

## ENLT 242 - British Literature: Romantic and Victorian

3 cr.

(Area B-2)
A study of the major literary works in 19th-century England: poetry, novels and non-fictional prose. The emphasis is threefold: critical analysis; literary history; social, intellectual and political background.

## ENLT 243 - American Literature to 1865

3 cr.

(Area A-1)
An in-depth study of a select group of major American authors from the Colonial Period to the Civil War. Included are Bradford, Franklin, Irving, and Poe. Consideration given to the historical and cultural milieu and development of major American themes and attitudes. (Offered Fall Semester Only)

## ENLT 244 - Modern British Literature

3 cr.

(Area B-3) (Theory Intensive)
Selected modern and postmodern English poets, playwrights, and fiction writers: Hopkins, Eliot, Hughes, Auden, Larkin, Spender, Osborne, Stoppard, Pinter, Greene, Waugh, Read, Lodge, Amis, Spark, McEwan and Chatwin. (Offered Fall Semester Only)

## ENLT 245 - American Literature, 1865 to the Present

3 cr.

(Area A-2)

Study of a select group of major American authors from the Civil War to the present. Included are Twain, Crane, Fitzgerald and Vonnegut. The historical and cultural milieu and the development of major American themes and attitudes are reviewed. (Offered Spring Semester Only)

## ENLT 250 - (EPW,CL,D) Multi-Ethnic American Literature

3 cr.

(Area G)
Readings will be drawn primarily from Native American, Asian American, African American and Latina/o writings. The class will trace common themes and questions such as what it means to be "American," gender identity, the conflict of cultural identities, alienation and assimilation.

## ENLT 251 - (CL,D) Borderlands Writing

3 cr.

(Area G) (Theory Intensive)
An introduction to Latino/a literature of the U.S. southwest and southeast. Each location represents a type of border culture, U.S./Mexican in the southwest and U.S./Cuban in the southeast. Discussions and assignments will explore the cultural role of women, nation-states and nationalism, violence, healing practices, spirituality and sexual identity.

## ENLT 254 - (CL,D) "Bodybuilding": Narratives of Health and Ability

3 cr.

(Prerequisites: ENLT 100-level course between ENLT 120 and ENLT 129)
This course critically explores the cultural stories we tell about illness, injury, and disability, examining how these narrative models impact the material realities of people's lives and bodies, and how they both reflect and (re)produce ideological assumptions underlying social institutions and power structures, including those pertaining to gender.

## ENLT 255 - (EPW,CL,D) African-American Literature

3 cr.

(Prerequisite: ENLT 140)
(Area G, A-2, or A-3 dependent on course syllabus and approval of chair). This course is an in-depth study of African-American literature. A variety of genres and authors can be explored. This examination will entail discussion of critical topics such as slavery and its legacy, racial identity, and the meaning of freedom.

## ENLT 258 - (CL) Contemporary American Fiction

3 cr.

(Area A-3)

(Prerequisites: ENLT 140 or the equivalent; any ENLT course between 120 & 179, inclusive)
A survey of American fiction from 1950 to the present. Requirements include participation in class discussion, oral presentations, and sustained consultation with the instructor on the writing and revision of several critical essays.

## ENLT 259 - (CL) Contemporary American Poetry

3 cr.

(Prerequisites: ENLT 121 or ENLT 140 or permission of instructor. Familiarity with poetic conventions, terminology, forms, etc.)

This course invites students to a sampling of significant poems by a half dozen or more contemporary American poets who have published within the past half century. All poets selected have enjoyed major recognition. Poets may include Sylvia Plath, Philip Levine, Rita Dove, Frank O'Hara, Gary Soto, Li-Young Lee, and others. (Offered alternate years)

## ENLT 260 - (CL,D, EPW,W) Women of Color: Literature & Theory

3 cr.

(Area G) (Theory Intensive)
This course introduces the intermediate student to the critical and creative writings by women of color. These texts convey women of color's unique subjectivities. Discussion topics include themes of the body and storytelling, the ideas of self and communal preservation, and the political and cultural negotiation of multiple communal memberships.

## ENLT 265J - The American Literary Experience

3 cr.

(Prerequisites: ENLT 140 or the equivalent; any ENLT course between 120 & 179, inclusive)
A survey of prose landmarks in the evolution of a unique American literary consciousness from the eighteenth century to the present. Discussions will focus on the American Enlightenment, Romanticism, Transcendentalism, Realism, Naturalism, Modernism, and Postmodernism. Each literary movement will be considered in relation to its social, historical, & cultural contexts.

## ENLT 270 - (EPW, CL) Science Fiction and Utopian/Dystopian Literature

3 cr.

(Prerequisites: Grade of "C" in their appropriate EP, Level I courses, and an ENLT 100-level course which may overlap with a FYS.)
A study of science fiction and utopian/dystopian literature that focuses on the literary devices and concepts highlighted in these texts. Both written and oral skills are to be focused on and enhanced in this course through the analyses of selected primary texts and secondary critical work.

## ENLT 295 - (CL) Shakespeare in Stratford

3 cr.

This course combines a traditional study of six Shakespearean plays on the University campus with a week-long residency at the Shakespeare Centre in Stratford-upon-Avon, England. Students will read and discuss the plays produced during the current Royal Shakespeare Company season and attend performances of those plays.

## ENLT 323J - (CL) Classics of Western Literature I

3 cr.

This SJLA course surveys a tradition concerned with the individual, family, and society from classical Greece (Homer, Aeschylus, Plato) to Shakespeare and thence to the Post-Colonial (Joyce, Woolf, Morrison). Readings explore the culmination of epic and dramatic modes in modern fiction. The emphasis is inductive, within cultural and theoretical contexts.

## ENLT 340 - Late Medieval Drama

3 cr.

(Area B-1)
A survey of 14th- and 15th-century drama, including the Corpus Christi cycle, morality plays such as *Everyman, Mankind* and *Castle of Perseverance*, and the saint's play. This course may be counted toward the Theatre major, minor or track.

## ENLT 341 - (CL) Shakespeare: Special Topics

3 cr.

(Theory Intensive)
A detailed study of Shakespeare's treatment of either a particular genre (comedy, tragedy, history, romance) or a particular subject that occurs across genres. Special attention will be paid to the meaning of plays in performance. This course may be counted toward the Theatre track or minor.

## ENLT 342 - Renaissance Poetry and Prose

3 cr.

(Area B-1)
A survey of lyric and narrative poetry, fictional and non-fictional prose, and drama written in England between the time of Sir Thomas More and John Milton. Readings will include More, Surrey, Lyly, Spenser, Sir Philip and Mary Sidney, Donne, Webster, Jonson, Marvell, and Milton.

## ENLT 343J - (CL) Shakespeare Performed

3 cr.

(Prerequisite: PHIL 217J)
This course examines five Shakespeare plays (*Much Ado about Nothing*, *Othello*, *Macbeth*, *Hamlet*, and *The Merchant of Venice)* from four different perspectives: as written texts, as scripts for staging, as screenplays for films, and as material for adaptation into modernized television shows or movies.

## ENLT 345 - (CL) Restoration and 18th-Century Drama

3 cr.

(Area B-2) (Theory Intensive)
A survey of the major formal and thematic developments on the London stage between 1660 and 1776. Discussions will focus on the social, political and institutional changes that re-shaped theatrical productions during this period. This course may be counted toward the Theatre major, minor or track.

## ENLT 348 - (CL,D) Colonial and Postcolonial Fiction

3 cr.

(Area G) (Theory Intensive)
Through detailed study of such authors as Achebe, Conrad, Forster, Kincaid, Kipling, Naipaul, Orwell, and Rushdie, this course explores the myths and meanings of 19th- and 20th- century European colonialism in Asia, Africa, and the Americas.

## ENLT 349 - (CL) Restoration and 18th-Century Poetry

3 cr.

(Area B-2)
A study of the major developments in English poetry between 1660 and 1780 in relation to the cultural and literary history of the period. The reading list will focus on the major '"Augustan" poets (Dryden, Pope, Swift, and Johnson). It will also include works by Rochester, Behn, Gay, and Goldsmith.

## ENLT 350 - Major Works: American Romantics

3 cr.

(Area A-1)
Cooper's The *Prairie*, Emerson's *Nature*, Thoreau's *Walden*, Melville's *Moby Dick*, and others. Evaluation of the works in their historical context and the development of the American Romantic movement, 1820-1865.

## ENLT 351 - Transcendentalists

3 cr.

(Area A-1)
This course transcends the typical limits of this literary period to Emerson and Thoreau's major works. Thus, Orestes Brownson, Margaret Fuller, Ellery Channing, Theodore Parker are covered.

## ENLT 352 - (CL) The Development of the American Novel

3 cr.

This course will focus on the ways in which the American novel has reflected our changing literary and cultural values from the late 18th to the 20th century. The reading list will include works by Charles Brockden Brown, Nathaniel Hawthorne, Mark Twain, Kate Chopin, John Steinbeck, and Kurt Vonnegut Jr.

## ENLT 353 - Major Works: American Realists

3 cr.

(Area A-2)
Twain's *Huckleberry Finn*, Howell's *The Rise of Silas Lapham*, James's *The American*, Crane's *The Red Badge of Courage*, Dreiser's *Sister Carrie* and others. Works are evaluated in their historical milieu and the development of American Realism, 1865-1900.

## ENLT 360 - (D,CL) Jewish Literature

3 cr.

The course provides a broad literary overview of Jewish life from medieval times to the present, examining the poetry, fiction, memoirs, and drama of Jewish writers from a variety of cultures.

## ENLT 362 - Literature and Philosophy

3 cr.

(Theory Intensive)
This course explores the Platonic insight that on the highest level literature and philosophy converge. We begin with a few of Plato's dialogues which develop this idea. Then we examine several "literary" works in English which embody it. Our approach is analytical, inductive and historical.

## ENLT 363 - Magazine Editing

3 cr.

The process of editing is surveyed. Macro-editing (publishing for a defined audience and delighting, surprising, informing, and challenging it) is emphasized over micro-editing (grammar, punctuation, and so forth). Both are fitted into the larger picture of promotion, fulfillment, circulation, advertising, production, and distribution.

## ENLT 366 - Dante's Divine Comedy

3 cr.

A canto-by-canto study, in translation, of Dante's dream vision of hell, purgatory, and heaven. Consideration will be given to the cultural milieu and to medieval art and thought as these affect the allegorical meaning and structure of the poem.

## ENLT 367 - Gerard Manley Hopkins, S.J.

3 cr.

Study of the life and works of Gerard Manley Hopkins, S.J., the only priest-poet ever to be honored with a place in Westminster Abbey's Poet's Corner.

## ENLT 369 - (CL) Playing God: Theatrical Presentations of Divinity

3 cr.

Theatrical Presentations of Divinity Playwrights from Aeschylus to Tony Kushner have attempted to stage the divine in various ways. This course will explore the cultural contexts for these plays and the always complicated relationship between organized religion and the stage. The reading list will include representative works from antiquity to the present day.

## ENLT 375 - The Works of Toni Morrison

3 cr.

(Prerequisite: any ENLT 200-level course or permission of the instructor)
This course will examine the works of Toni Morrison, a major figure in both African-American and Contemporary American Literature. In reading her novels, primarily, and her essays, students will discover Morrison's unique elaboration of critical concepts and themes within the discipline of literature. Reading list can vary with each course offering.

## ENLT 382 - Guided Independent Study

Variable credit

A tutorial program open to third-year students. Content determined by mentor.

## ENLT 383 - Guided Independent Study

Variable credit

A tutorial program open to third-year students. Content determined by mentor.

## ENLT 395 - (CL,D) Travel Seminar: Sacred Ireland

3 cr.

This Dublin-based course surveys Ireland's pagan and Christian past. Our materials include: archeology, architecture, art, myth, literature, history, and film. Students will view films and read before traveling to Ireland. Students will be evaluated on discussion and on three original four-page critical essays and five two-page reflection essays. (Summer)

## ENLT 423J - (CL) Classics of Western Literature

3 cr.

This SJLA course examines epic and lyric poetry from classical Roman poetry through medieval, early modern and modern literature. The approach is both literary (i.e., studying plot, character, style, genre) and thematic (i.e., addressing traditions concerning the individual, family and society). The emphasis is inductive, within cultural and theoretical contexts.

## ENLT 443 - Chaucer

3 cr.

(Theory Intensive)
A study of Chaucer's poetry in the context of medieval culture. Readings and assignments will concentrate on *The Canterbury Tales*, but will also cover the other major poems, such as the *Book of the Duchess* and the *Parliament of Birds*.

## ENLT 458 - Joyce

3 cr.

This course explores the prose works of James Joyce, a major figure in 20th-century literature. We will read *Dubliners*, *A Portrait of the Artist as a Young Man*, and, with the help of various guides, *Ulysses*. We will work to apprehend in Joyce both the universal and the peculiarly Irish.

## ENLT 462 - Literary Criticism and Theory

3 cr.

(Theory Intensive)
This course explores both the derivation and the defining characteristics of a range of contemporary interpretive practices, including those of psychoanalytic, Marxist, feminist, formalist, reader response, structuralist, poststructuralist, and cultural materialist critics.

## ENLT 480 - Internship

Variable Credit

English majors can receive internship credit for a variety of on-the-job experiences. Approval must be obtained beforehand from chair and dean.

## ENLT 482 - Guided Independent Study

Variable Credit

A tutorial program open to fourth-year students. Content determined by mentor.

## ENLT 483 - Guided Independent Study

Variable Credit

A tutorial program open to fourth-year students. Content determined by mentor.

## ENLT 490-491 - Senior Seminar

3 cr.

The topics of these writing-intensive seminars vary from semester to semester. Based largely on student writing, presentations, and discussion, this capstone course is required in the major and culminates in the student's development of a seminar paper. May be repeated for credit. Enrollment limited to 15 students per section.

## ENLT/CINE 151 - Introduction to Cinema Studies

3 cr.

An introduction to narrative film considered as an art form. The viewing list will be evenly divided between American films and films produced in other countries (frequently in languages other than English).

## ENLT/CINE 153 - (CL,FYO) History of American Film

3 cr.

A historical overview of the American film industry. The viewing list will begin with early short films produced by Thomas Edison and run through the end of the 20th century. Each student will be expected to make at least two oral presentations to the class. Offered once every two years.

## ENLT/CINE 256 - (CL,EPW) Cinema Studies: Watching the Detectives

3 cr.

(Prerequisite: Completion of at least one ENLT 100-level course between ENLT 120 and ENLT 129 or permission of the instructor)
This advanced course in cinema studies can be counted toward either the English Major, or the English Minor, or the Cinema Studies Minor. It examines the detective film starting with its Gothic roots in the 1920s and concluding with recent efforts to re-make and re-consider the form.

## ENLT/CINE 257 - (CL,EPW) Cinema Studies: The Western

3 cr.

(Prerequisites: Completion of at least one ENLT 100-level course between ENLT 120 and ENLT 129 or permission of the instructor)
This advanced course in cinema studies can be counted toward either the English Major, or the English Minor, or the Cinema Studies Minor. It examines the Hollywood Western starting with its modest roots in the 1920s and concluding with recent efforts to re-make and re-consider the form.

## ENTR 362 - Business Foundations for Entrepreneurs

3 cr.

(This course is for Non-Business Majors only)
The non-business major will learn and apply basic business concepts needed by the entrepreneur. This will include concepts in financial accounting, managerial accounting, finance, management, operations management, marketing, and business law. Entrepreneurship majors and minors will take this course during the spring semester of the junior year.

## ENTR 363 - Applied Business Foundations for Entrepreneurs

1 cr.

(Prerequisite: ACC 253 or equivalent for accounting/finance majors; ACC 254 or equivalent for accounting/finance majors; MGT 251, MGT 351, and FIN 251 concurrent)
The business major will apply basic business concepts needed by the entrepreneur. This will include concepts previously learned in financial accounting, managerial accounting, finance, management, operations management, marketing, and business law. Entrepreneurship majors and minors will take this course during the spring semester of the junior year.

## ENTR 372 - The Entrepreneurial Mindset

3 cr.

This course introduces students to the foundational skills abilities, behaviors, attitudes, and mindsets of successful entrepreneurs (those who start a business) and intrapreneurs (those who are innovative within an existing organization). This course is action-oriented and experiential in nature. A variety of guest speakers will share their entrepreneurial experiences. The student will be exposed to entrepreneurial theories and applicable project management tools. Upon completion of this course, students will have

not only discovered their entrepreneurial skill sets but also increased them. This course will be taken during the fall semester of the junior year.

## ENTR 373 - Business Creativity and Innovation

3 cr.

This course will provide the student with opportunities to further develop personal creativity within the context of entrepreneurial efforts. Tools for analyzing the feasibility of entrepreneurial ideas and their transition into innovative efforts will be demonstrated. The student will devise an idea that can be transformed into a business plan. Entrepreneurship majors and minors will generally take this course during the spring semester of the junior year.

## ENTR 374 - Entrepreneurial Resource Acquisition and Management

3 cr.

This course will provide the student with opportunities to understand, analyze, and evaluate ways to acquire and manage several types of resources needed to manage a successful entrepreneurial endeavor. Particular emphasis is placed upon financial and human resources. Timing of resource acquisition is considered. Related legal implications are also addressed.

## ENTR 375 - Family Run Business

3 cr.

This course will provide students with opportunities to understand, analyze, and evaluate the unique issues that emerge in managing family businesses. The importance of effective family member business relationships, succession, and estate issues will be examined. Strategies for deciding how quickly to grow the business will also be addressed.

## ENTR 477 - (EPW) The Entrepreneurial Business Plan

3 cr.

(Prerequisites: ENTR 372; ENTR 362 or ENTR 363) (For Entrepreneurship majors and minors only)
This course will provide the student with the opportunity to create and present a complete business plan for a proposed entrepreneurial effort. The plan can be for a non-profit, family-business, or other for-profit endeavor. Selected business plans will be entered in external entrepreneurial competitions. This course will be taken during the fall semester of the senior year.

## ENTR 478 - Social Entrepreneurship

3 cr.

This course exposes the student to social and environmental entrepreneurial opportunities. This includes both the examination of non-profit entrepreneurial efforts and the creation of hybrid organizations, which are self-sustaining for-profit businesses that have a primary social and stewardship mission. Social and environmental responsibilities of traditional entrepreneurial activities will also be examined. Entrepreneurship majors and minors will generally take this course during the fall semester of the senior year.

## ENTR 479 - Hooking the Shark

3 cr.

This course emphasizes the behavioral skills needed to build high performance teams and engage potential customers. Students will also refine and demonstrate their technical skills, including estimating costs, attracting and structuring venture capital investment, and managing risks. Additionally, students learn how investors evaluate teams and business opportunities

## ENTR 480 - The Entrepreneurial Capstone Business Experience or Internship

1 to 3 cr. (3 cr. in total needed to complete the Entrepreneurship Minor)

(Formerly MGT 480) (Pre-requisites: Entrepreneurship Minors Only; Entrepreneurship Program Director Approval)
This course is designed to provide for the use of concepts, techniques, and theories learned in the classroom through completion of a 150-hour internship or a project. Students pursuing either the internship or the project are assigned tasks that will enable them to develop competencies and increase their entrepreneurial skills.

## ENTR 481 - Global Practicum

3 cr.

Following the required global trip during intersession, students will deconstruct their experience. This course emphasizes the experimentation required to scale-up companies. Skills developed include managing global and technical teams, balancing ethical considerations, and management activities associated with mergers and acquisitions with a focus on the strategic aspect of these transactions.

## ESCI 440 - Topics in Environmental Science

1 cr.

(Prerequisite: senior standing in ESCI major or permission of instructor)

One credit/semester. Discussions of current and significant environmental science issues.

## ESCI 441 - Topics in Environmental Science

1 cr.

(Prerequisite: senior standing in ESCI major or permission of instructor)
One credit/semester. Discussions of current and significant environmental science issues.

## ESCI 480 - Internship in Environmental Science

1.5 cr.

(Prerequisite: senior standing in ESCI major or permission of instructor)
Student to work with private firm, advocacy group, or governmental agency on an environmental issue or technique that involves application of scientific principles to monitor, test, or develop/implement solutions to environmental problems. Project and institutional sponsor subject to approval of the Environmental Science Committee; final project report required.

## ESCI 481 - Internship in Environmental Science

1.5 cr.

(Prerequisite: senior standing in ESCI major or permission of instructor)
Student to work with private firm, advocacy group, or governmental agency on an environmental issue or technique that involves application of scientific principles to monitor, test, or develop/implement solutions to environmental problems. Project and institutional sponsor subject to approval of the Environmental Science Committee; final project report required.

## ESCI 493 - Research in Environmental Science

1.5 cr.

(Prerequisite: senior standing in ESCI major or permission of instructor)
Individual study and research of a specific environmental problem. Mentored by a Biology or Chemistry faculty member.

## ESCI 494 - Research in Environmental Science

1.5 cr.

(Prerequisite: senior standing in ESCI major or permission of instructor)
Individual study and research of a specific environmental problem. Mentored by a Biology or Chemistry faculty member.

## ESL 101 - (D) Academic ESL

3 cr.

(Prerequisites: for ESL 101: Paper TOEFL score of 500 or equivalent; for ESL 102, ESL 101 or consent of instructor)
Designed for students for whom English is a second/additional language to develop skills in academic English discourse. Focuses on reading and writing needed for university course work as well as dominant mores and characteristics of U.S. culture such as the political, economic, historical, and social environment of the United States

## ESL 102 - (D) Academic ESL

3 cr.

(Prerequisites: for ESL 101: Paper TOEFL score of 500 or equivalent; for ESL 102, ESL 101 or consent of instructor)
Designed for students for whom English is a second/additional language to develop skills in academic English discourse. Focuses on reading and writing needed for university course work as well as dominant mores and characteristics of U.S. culture such as the political, economic, historical, and social environment of the United States

## FIN 251 - Introduction to Finance

3 cr.

(Formerly FIN 351) (Prerequisites: MATH 106 or permission from the instructor, ECO 153, ECO 154, Co-requisites: ACC 251 or ACC 253). For non-business majors, substitution of ECO 101 in place of ECO 153, ECO 154 is permissible.
This course introduces the business student to the field of finance. It serves as the foundation course for financial principles used in both financial management and investment courses. Topics include time value of money, risk analysis, basic operation of the capital markets, current asset and liability analysis, and introduction to the topics of capital budgeting and cost of capital calculation.

## FIN 251K - Introduction to Finance

3 cr.

(Prerequisites: MATH 106 or permission from the instructor, ECO 153, ECO 154, Co-requisites: ACC 251 or ACC 253).
This honor course introduces the business student to the field of finance. It serves as the foundation course for financial principles used in both financial management and investment courses. Topics include time value of money, risk analysis, basic operation of the capital markets, current asset and liability analysis, and introduction to the topics of capital budgeting and cost of capital calculation.

## FIN 362 - Investments

3 cr.

(Prerequisite: FIN 251)
An introduction to the theory and process of managing investments. Topics include practical operation of the equity markets, debt options and futures markets. Stock-valuation models using fundamental technical and random-walk approaches.

## FIN 363 - Intermediate Finance

3 cr.

Prerequisites: STAT 252 or STAT 253, ACC 251 and ACC 252, and FIN 251.
Intermediate Finance builds on the introductory course in finance (FIN 251). The topics covered will include, Financial Planning and Short-Term Financing, Risk and Capital Budgeting, Capital Structure and Dividend Policy, Long-Term Financing, Derivatives and Corporate Finance, and Mergers and Acquisitions.

## FIN 365 - Fixed Income Securities and Markets

3 cr.

(Prerequisites: FIN 251 and FIN 362)
This course will cover fixed income products, analytical techniques for valuing bonds, and the quantification of bond exposure to various types of risk. Topics discussed will include: the structure of the U.S. bond market, valuation, securitization, price and yield calculations, the measurement and management of risks associated with investing in fixed income securities and bond portfolio management.

## FIN 471 - Derivative Securities

3 cr.

(Prerequisite: FIN 362)
This course looks at the nature of derivative securities, focusing on options. It develops pricing models for options, emphasizing the Black-Scholes model. The use of options in various investment strategies is discussed in terms of risk and return. Students use real-time data to implement these strategies.

## FIN 472 - Portfolio Management

3 cr.

(Prerequisite: FIN 362)

Advanced study of professional management of various portfolios including those of banks, insurance companies, pension funds, and non-profit institutions. Markowitz and Sharpe models, data availability, and computerized-data services are covered.

## FIN 473 - (EPW) Financial Institutions

3 cr.

(Prerequisite: ECO 362)
The study of financial markets and financial institutions, including depository and nondepository institutions. Topics include regulation, operation, and management of financial institutions, financial instruments, interest-rate principles, risk-management strategies, loan analysis, and asset/liability management. Insurance and pension principles and investment banking are covered.

## FIN 476 - Case Course in Corporate Finance

3 cr. (Prerequisites FIN 363, ACC 361, and ACC 362)
The goal of this course is to familiarize you with fundamental aspects of corporate financial policy and practice through case analysis. Both financing and investment decision making will be examined through in-depth case discussions of representative finance cases including data analysis as appropriate. Tentative topics include capital budgeting under uncertainty, estimation of cost of equity/debt and weighted average cost of capital, implications of the capital asset pricing model and arbitrage pricing theory, dividend policy, optimal capital structure, initial public offerings and merger & acquisitions.

## FIN/IB 475 - International Finance

3 cr.

(Prerequisites: ECO/IB 351, FIN 251)
This course deals with the environment of international financial management, exchange-rate determination, foreign-exchange risk-management, multinational working-capital management, international financial markets and instruments, foreign-investment analysis, and management of ongoing operations. It also exposes students to a wide range of issues, concepts, and techniques pertaining to international finance.

## FREN 101 - (CF) Beginning French

3 cr.

Designed to impart a good basic foundation in comprehending, speaking, reading, and writing the French language. Designed primarily for students with little or no background in the French language. Taught in French. *Includes activities inside and/or outside the classroom that involve Language Learning Center (language lab) resources.*

## FREN 102 - (CF) Beginning French

3 cr.

(Prerequisite: FREN 101 is normally the prerequisite to 102)
Designed to impart a good basic foundation in comprehending, speaking, reading, and writing the French language. Designed primarily for students with little or no background in the French language. Taught in French. *Includes activities inside and/or outside the classroom that involve Language Learning Center (language lab) resources.*

## FREN 203 - French Cultural Heritage

3 cr.

This course aims to develop understanding of the culture, literature and civilization of France. Representative readings from different periods. Lectures, discussions and readings in English.

## FREN 211 - (CF) Intermediate French

3 cr.

(Prerequisites: FREN 101-FREN 102 or equivalent, as determined by placement exam)
Designed to give greater scope and depth to the student's knowledge of the French language and Francophone culture. Taught in French. *Includes activities inside and/or outside the classroom that involve Language Learning Center (language lab) resources.*

## FREN 212 - (CF,D) Intermediate French

3 cr.

(Prerequisites: FREN 101-FREN 102 or equivalent, as determined by placement exam; FREN 211 or its equivalent is normally the prerequisite to 212)
Designed to give greater scope and depth to the student’s knowledge of the French language and Francophone culture. Taught in French. *Includes activities inside and/or outside the classroom that involve Language Learning Center (language lab) resources. Completion of FREN 212 satisfies one semester of the cultural diversity requirements.*

## FREN 311 - (CF,D) French Conversation

3 cr.

(Prerequisites: FREN 211-FREN 212 or equivalent, as determined by placement exam or consent of instructor)
Intensive French conversation, emphasizing cross-cultural comparisons and development of self-expression in French. Taught in French. *Includes activities inside and/or outside the classroom that involve Language Learning Center (language lab) resources.*

## FREN 312 - (CF) French Composition

3 cr.

(Prerequisites: FREN 211-FREN 212 or equivalent, as determined by placement exam or consent of instructor)

An intensive course in writing in French, stressing grammar, writing analysis and composition. Taught in French. *Includes activities inside and/or outside the classroom that involve Language Learning Center (language lab) resources.*

## FREN 315 - (D) Survey of French Culture and Civilization

3 cr.

(Prerequisites: FREN 311-FREN 312 or equivalent)
A review of the geography, history, art and other components of the heritage of continental France, from antiquity to the present. Taught in French.

## FREN 316 - (D) Survey of Francophone Culture and Civilization

3 cr.

(Prerequisites: FREN 311-FREN 312 or equivalent)
A historical view of the cultural contribution and heritage of French-speaking peoples living outside continental France. Taught in French.

## FREN 319 - Business French

3 cr.

(Prerequisites: FREN 311-FREN 312 or equivalent)
Overview of the spoken and written language of the French business world. Formalities and conventions of letter writing, banking, import/export, and other commercial transactions. Analysis of terminology from business-related areas such as finance, insurance and international commerce within a contemporary cultural setting. Taught in French. *Includes activities inside and/or outside the classroom that involve Language Learning Center (language lab) resources.*

## FREN 320 - (EPW,CL) Introduction to French Literature

3 cr.

(Prerequisites: FREN 311-FREN 312 or equivalent)
An introduction to the principal literary genres of poetry, novel, short story, essay and drama, through analysis of representative works in the French tradition. Strongly recommended as a prerequisite for all upper-division literature courses in French. Taught in French.

## FREN 325F - (D) French-Francophone Politics and Society

3 cr.

The course addresses the historical, social and cultural aspect of France's imperialistic expansion, with particular emphasis on French relations, past and present, with the African colonies. FREN 325F can count towards the major or minor by arrangement with the professor. Taught in conjunction with FREN 333.

## FREN 333 - French Practicum

1 cr.

(Prerequisite: Enrollment in a FLaC course, that is, a course listed as E and F, English language or Foreign language credit bearing.)
A one-credit course in the target language to supplement FLaC courses (Foreign Language across the Curriculum) taught in English. In addition to doing their reading and writing in the target language, students receiving credit in the target language will meet an additional hour per week for discussion in that language. This course may be repeated for credit.

## FREN 430 - Women Writers of the Francophone World

3 cr.

(Prerequisites: FREN 311-FREN 312 or equivalent)
Women's view of themselves and the world as reflected in their literary creations. Cross-listed with Women's Studies Concentration. (See *Women's and Gender Studies Concentration* section.) Taught in French.

## FREN 431 - (D) Literature of the Twentieth and Twenty-First Centuries

3 cr.

(Prerequisites: FREN 311-FREN 312 or equivalent)
This course provides an overview of different literary genres and literary currents through in depth reading and analysis of exemplary texts written in French in the twentieth and twenty-first centuries. Taught in French.

## FREN 432 - French Short Story

3 cr.

(Prerequisites: FREN 311-FREN 312 or equivalent)
Principal practitioners of the short story in French, including contemporary authors. Taught in French.

## FREN 433 - Twentieth-Century French Drama

3 cr.

(Prerequisites: FREN 311-FREN 312 or equivalent)
The development of dramatic forms from the *Théâtre Libre* to the present. Taught in French.

## FREN 435 - The French Theater

3 cr.

(Prerequisites: FREN 311-FREN 312 or equivalent)
An inquiry into the various forms of the French theater through a study of significant representative works from different periods. Taught in French.

## FREN 437 - (D) Francophone Literature

3 cr.

(Prerequisites: FREN 311-FREN 312 or equivalent)
This course provides an overview of different forms of literary expression throughout the Francophone world, from Africa to Haiti to Quebec. Emphasis will be on main literary currents, ideology, political climates, and linguistic traditions in each country. Taught in French.

## FREN 439 - The Craft of Translation

3 cr.

(Prerequisites: FREN 311-FREN 312 or equivalent)
A study of the techniques of translation with emphasis on accurate terminology and proper syntax when translating newspaper articles, legal documents, medical records, business records and correspondence, essays, poems, songs, and short fiction.

## FREN 482 - Guided Independent Study

1.5 cr.

(Prerequisites: FREN 311-FREN 312 or equivalent; junior or senior standing)
Tutorial content determined by mentor. Taught in French.

## FREN 483 - Guided Independent Study

1.5 cr.

(Prerequisites: FREN 311-FREN 312 or equivalent; junior or senior standing)
Tutorial content determined by mentor. Taught in French.

## GEOG 134 - (S) World Regional Geography

3 cr.

Introduces the major concepts and skills of geography. A regional approach stresses the five themes of geography including location, place, human environment interaction, movement and region.

## GEOG 217 - (D,S) Cultural Geography

3 cr.

Study of the influence of geography on the origin, structure, and spread of culture. Focuses on describing and analyzing the ways language, religion, economy, government and other cultural phenomena vary or remain consistent from place to place.

## GERM 101 - (CF) Beginning German

3 cr.

(GERM 101 is normally the prerequisite to GERM 102.)
A complete course in the fundamentals of the German language. Emphasis on reading of graded texts, with written, oral and aural exercises. Designed for students with little or no background in the German language. Taught in German. *Includes activities inside and/or outside the classroom that involve Language Learning Center (language lab) resources.*

## GERM 102 - (CF) Beginning German

3 cr.

(Prerequisite: GERM 101 is normally the prerequisite to 102)
A complete course in the fundamentals of the German language. Emphasis on reading of graded texts, with written, oral and aural exercises. Designed for students with little or no background in the German language. Taught in German. *Includes activities inside and/or outside the classroom that involve Language Learning Center (language lab) resources.*

## GERM 211 - (CF) Continuing German I

3 cr.

(Prerequisites: GERM 101-GERM 102 or equivalent or by placement exam and consent of instructor.)
Reading from modern authors of moderate difficulty. Oral and written exercise. Systematic review of German grammar. Taught in German. *Includes activities inside and/or outside the classroom that involve Language Learning Center (language lab) resources. Completion of GERM 212 satisfies one semester of the cultural diversity requirements.*

## GERM 212 - (CF,D) Continuing German II

3 cr.

(Prerequisites: GERM 101-GERM 102 or equivalent; GERM 211 or its equivalent is normally the prerequisite to 212)
Reading from modern authors of moderate difficulty. Oral and written exercise. Systematic review of German grammar. Taught in German. *Includes activities inside and/or outside the classroom that involve Language Learning Center (language lab) resources. Completion of GERM 212 satisfies one semester of the cultural diversity requirements.*

## GERM 295 - (D) German Culture and Language

3 cr.

Intersession course to German, Austria and Switzerland. Credits may be used in Free Area and Cultural Diversity but not for German major or minor. Comparison of German and American cultures. Study of history, music, political science, language and modern attitudes.

## GERM 311 - (CF) Advanced German Composition and Conversation

3 cr.

(Prerequisites: GERM 211-GERM 212 or equivalent)

Selected texts in prose and poetry. Advanced practice in conversation and composition. Survey of German grammar. Taught in German. *Includes activities inside and/or outside the classroom that involve Language Learning Center (language lab) resources.*

## GERM 312 - (CF) Advanced German Composition and Conversation

3 cr.

(Prerequisites: GERM 311 or its equivalent is normally the prerequisite to GERM 312)
Selected texts in prose and poetry. Advanced practice in conversation and composition. Survey of German grammar. Taught in German. *Includes activities inside and/or outside the classroom that involve Language Learning Center (language lab) resources.*

## GERM 313 - (CL,D) Survey of German Literature and Culture

3 cr.

(Prerequisites: GERM 311-GERM 312 or equivalent)
A survey of German literature from the 11th century to the contemporary period, with special emphasis on the main intellectual currents as well as the social and political developments. Taught in German.

## GERM 314 - (CL,D) Survey of German Literature and Culture

3 cr.

(Prerequisites: GERM 311-GERM 312 or equivalent)
A survey of German literature from the 11th century to the contemporary period, with special emphasis on the main intellectual currents as well as the social and political developments. Taught in German.

## GERM 315 - (D,CF) Violence in Twentieth Century Germany

3 cr.

(Prerequisites: Four completed semesters of college-level German or instructor permission)
Violence is a central problem in twentieth-century German culture and society. Our most common associations with "German" violences, including the two world wars and the Holocaust, are specific articulations of violence and brutality that together generate cultural and historical questions. Taught in German.

## GERM 317 - (D,CL) German Travel Writing

3 cr.

(Prerequisites: Four completed semesters of college-level German or instructor permission)
A survey of travel writing in German, ranging from Romantic ideas about travel and *Bildung*, to colonial explorations, 19th century emigration to the Americas, 20th century German and Jewish German exile, mass-tourism in Weimar and the Third Reich, and post-World War II immigration.

## GERM 318 - (D,CL) Introduction to German Cinema

3 cr.

(Prerequisites: Completion of 4 semesters of college-level German or permission of instructor)

This masterpiece survey of German film offers students the opportunity to develop advanced skills and strategies for written and oral communication in German. Students will consider key thematic, aesthetic, and political issues in films from the Weimar Republic; the Third Reich; post-war film; DEFA; New German Cinema; and re-unification.

## GERM 319 - Business German

3 cr.

(Prerequisites: GERM 311-GERM 312 or equivalent)
Overview of the spoken and written language of the German business world. Formalities and conventions of letter writing, banking, import/export, and other commercial transactions. Analysis of terminology from business-related areas such as finance, insurance and international commerce within a contemporary cultural setting. Taught in German. *Includes activities inside and/or outside the classroom that involve Language Learning Center (language lab) resources.*

## GERM 320E/320F - (D) Sex in the City: Gender and Modernity in Weimar Germany

3 cr.

The Weimar Republic (1919-1933) was formed in the wake of military and political conflicts and failed revolution. This course explores relationships among the aestheticization of violence against women, their increased visibility in the labor force, and public expressions of women's sexuality. (May be taken in combination with a one-credit language practicum, GERM 333, for German credit.)

## GERM 333 - German Practicum

1 cr.

(Prerequisite: Enrollment in a FLaC course, that is, a course listed as E and F, English language or Foreign language credit bearing.)
A one-credit course in the target language to supplement FLaC courses (Foreign Language across the Curriculum) taught in English. In addition to doing their reading and writing in the target language, students receiving credit in the target language will meet an additional hour per week for discussion in that language. This course may be repeated for credit.

## GERM 482 - Independent Study

Variable Credit

(Prerequisites: GERM 311-GERM 312 or equivalent; junior or senior standing)

Tutorial content determined by mentor. Taught in German.

## GERM 483 - Independent Study

Variable Credit

(Prerequisites: GERM 311-GERM 312 or equivalent; junior or senior standing)
Tutorial content determined by mentor.

## GERO 110 - (S) Introduction to Gerontology

3 cr.

A multidisciplinary examination of the cognitive and affective aspects of aging. The course covers social, physiological, psychological, economic, and health aspects of aging, as well as service-delivery systems. It explores planning and action strategies aimed at enhancing the quality of life and providing adequate benefits and services for the elderly. (Credit cannot be earned for GERO 110 and *HADM 110.)*

## GERO 216 - Aging and the Community

3 cr.

Consideration of selected community strategies effecting desired changes in the development and implementation of social services and programs for the elderly: legislative action, interagency relationships, the citizen role. *Students who have taken HADM 216 are not eligible to take GERO 216.*

## GERO 218 - Health and Aging

3 cr.

An explorative study of the mental and physical health problems prevalent in the older adult population, with emphasis upon the preventive aspect of health care as applied by themselves and healthcare providers. Health-care approaches appropriate to the various problems, and relevant resources within the home and community are considered. *(Credit cannot be earned for HADM 218 and GERO 218.)*

## GERO 220 - Crime and Aging

3 cr.

A consideration of crime as it affects aging: examining the older adult as victim, offender, practitioner, and perpetrator, in light of current thought, policy, and law.

## GERO 232 - Aging and Death

3 cr.

This course offers the student an opportunity to explore the mystery and meaning of death. Focus is on a number of aspects of dying and the death process, such as the dying individual and the family; cross-cultural perspectives; terminal illness; professions and death; rites and rituals. *(Credit cannot be earned for HADM 232 and GERO 232.)*

## GERO 284 - Special Topics in Gerontology

3 cr.

(Prerequisite: Permission of the chair and the instructor)
Courses designed to meet specific needs of individual students or courses offered on a trial basis to determine the value of placing them into the regular curriculum.

## GRK 111 - (CF) Beginning Greek

3 cr.

An intensive course in the fundamentals of Classical Greek grammar, with readings from both Attic and Koine (New Testament). Offered in rotation with Hebrew.

## GRK 112 - (CF) Beginning Greek

3 cr.

An intensive course in the fundamentals of Classical Greek grammar, with readings from both Attic and Koine (New Testament) Greek texts in GRK 112. Offered in rotation with Hebrew.

## GRK 205 - (D) Legacy of Greece and Rome

3 cr.

Survey of the artistic and cultural treasures of classical Greece and Rome, with a focus on their enduring legacy in our own civilization.

## GRK 211 - Intermediate Greek

6 cr.

(Prerequisites: GRK 111-GRK 112 or equivalent)

Review of fundamentals. Readings from Zenophon, Euripides, and the New Testament.

## GRK 212 - Intermediate Greek

6 cr.

(Prerequisites: GRK 111-GRK 112 or equivalent)
Review of fundamentals. Readings from Zenophon, Euripides, and the New Testament.

## GRK 213 - (CL,D) Classical Greek Literature and Mythology

3 cr.

This course examines the role that mythology played in Greek literature, and examines the changing attitudes of the Greeks towards the Olympian gods from Homer to the fourth century B.C. All readings and lectures in English.

## GRK 220 - Ancient Civilization: Greece

3 cr.

The political, constitutional, and cultural history of Greece from the earliest times to the death of Alexander the Great. All readings and lectures in English.

## GRK 311 - Readings in Greek Literature

1.5-3 cr.

(Prerequisites: GRK 211-GRK 212 or equivalent)

Selections from Greek writers to suit students' special interests.

## GRK 312 - Readings in Greek Literature

1.5-3 cr.

(Prerequisites: GRK 211-GRK 212 or equivalent)
Selections from Greek writers to suit students' special interests.

## GRK 482 - Guided Independent Study

Variable Credit

(Prerequisites: GRK 211-GRK 212 or equivalent; junior or senior standing)
Tutorial content determined by mentor.

## GRK 483 - Guided Independent Study

Variable Credit

(Prerequisites: GRK 211-GRK 212 or equivalent; junior or senior standing)
Tutorial content determined by mentor.

## HADM 110 - Introduction to Gerontology

3 cr.

A multi-disciplinary examination of the cognitive and affective aspects of aging. The course covers social, physiological, psychological, economic, and health aspects of aging, as well as service-delivery systems. It explores planning and action strategies aimed at enhancing the quality of life and providing adequate benefits and services for the elderly. *(Credit cannot be earned for GERO 110 and HADM 110.*)

## HADM 111 - Introduction to Health Administration

3 cr.

An introduction to health care and public health in the United States. Guest speakers and two site visits to local health care organizations are included.

## HADM 112 - Health Systems

3 cr.

The nature and organization of health systems in the United States and select countries. Knowledge of health services for diverse populations is emphasized. Guest speakers and two site visits to local health care organizations are included.

## HADM 211 - (EPW) Health Administration

3 cr.

(Prerequisite: HADM 111 or HADM 112)
This writing-intensive course studies organization theory, behavior and management applied to health-care organizations. Topics include leadership, conflict, organization structure, work groups, coordination, work design, communication, power, politics, change, strategy and performance effectiveness.

## HADM 212 - Health Administration Law

3 cr.

The legal and regulatory environment of health care and the administration of health care services. *Includes community based learning component.*

## HADM 215 - Medical Terminology and Disease Management

3 cr.

This course introduces participants to medical terminology used in various fields of healthcare. Basic techniques used in building medical terms is covered, using a systems approach to foster understanding of usage of such terms related to body structures and medical conditions. Medical terminology will be reinforced within the concept of disease management, during which participants will become informed as to various ways used to improve the quality of life for patients.

## HADM 216 - Aging and the Community

3 cr.

Consideration of selected community strategies effecting desired changes in the development and implementation of social services and programs for the elderly: legislative action, inter-agency relationships, the citizen role. *(Credit cannot be earned for GERO 216 and HADM 216.*)

## HADM 218 - Health and Aging

3 cr.

An explorative study of the mental and physical health problems prevalent in the older adult population, with emphasis upon the preventive aspect of health care as applied by themselves and healthcare providers. Health-care approaches appropriate to the various problems, and relevant resources within the home and community are considered. (Credit cannot be earned for GERO 218 *and HADM 218.*)

## HADM 230 - Complementary and Alternative Medicine

3 cr.

This course examines complementary and alternative medicine in the United States. Identify the processes, interventions, and funding agencies available for providing alternative care. The course reviews the various professions within alternative and complementary medicine field. The course addresses the holistic approach to health and well-being.

## HADM 232 - Aging and Death

3 cr.

This course offers the student an opportunity to explore the mystery and meaning of death. Focus is on a number of aspects of dying and the death process, such as the dying individual and the family; cross-cultural perspectives; terminal illness; professions and death; rites and rituals. *(Credit cannot be earned for GERO 232 and HADM 232.*)

## HADM 284 - Special Topics

3 cr.

Selected topics of current interest in health administration offered on a variable basis such as health information technology, managerial epidemiology, international health systems, etc.

## HADM 293 - Research in Health Administration

3 cr.

(Prerequisites: HADM major; PSYC 210)
An introduction to research methodology as applied to health administration issues and problems with an emphasis on experimental and quasi-experimental designs.

## HADM 312 - Health Finance

3 cr.

(Prerequisite: ACC 253 or ACC 254)
An introduction to financial and accounting concepts for health care providers. Emphasis is placed on knowledge of third-party reimbursement and budgeting concepts.

## HADM 314 - Health Policy

3 cr.

Public policy in the health-care sector is studied, including the process of policy making. Implications of governmental policies for health-care organizations and administrators are discussed.

## HADM 315 - (D) Cultural Diversity and Health Administration

3 cr.

(Prerequisites: HADM major or minor; HADM 211 or permission of instructor)
The principles of management of culturally diverse society as applied to the health care field. Emphasis is placed on the importance of assessing and addressing the health care needs of various cultural groups within a given health care service area. *Includes service-learning component.*

## HADM 316 - Health Care Marketing

3 cr.

Marketing theories, concepts and strategies as applied to the health-care field. Define the marketing process. Students learn the development of a marketing plan.

## HADM 318 - Long-Term Care Administration

3 cr.

An introduction to the management of long-term care facilities. Emphasis is placed on the differences between acute and long-term care, institutional and community-based long-term care services, and special concerns of the long-term care resident. Site visits to long-term care facilities are included.

## HADM 330 - Managed Care

3 cr.

The course provides an overview of managed care, current market trends and market performance issues. Closed and open panels, managed care contracting, disease management, behavioral health services and managed Medicare/Medicaid programs are also covered. Case studies of successful managed care programs are included throughout the course.

## HADM 331 - International Health Care

3 cr.

This course examines international health-care services and systems, global integration, public health, expatriation, global competition, transnational enterprises, conceptual models, comparative management, international strategies, health-care issues and problems, health-care processes and functions in international businesses, cross-cultural management, intercultural communication, and leadership across cultures.

## HADM 332 - Health Information Technology

3 cr.

This introductory course is designed to provide an overview of the present and future use of health information technology. It is intended for undergraduate students in health care and information technology with an interest in health-related applications.

## HADM 333 - Managerial Epidemiology

3 cr.

(Prerequisite: HADM 111 and/or HADM 112 or equivalent; a course in health statistics is recommended but not required)
This course focuses on epidemiological themes, including study design and data analysis, and introduces causal thinking and causal reference leading to measures of occurrence and measures of effect. The student learns how to analyze epidemiological research studies.

## HADM 334 - Physician Practice Management

3 cr.

(Prerequisites: HADM 111, HADM 112, HADM 211, HADM 212)
A course designed to examine the essential components of medical practice administration including the organizational structure and operations of medical group practice. Topics include operating and administrative issues, information management, health informatics, patient care systems, corporate compliance, physician credentialing, finance, risk management, physician compensation and quality of care.

## HADM 380 - Internship in Health Administration

3 cr.

(Prerequisites: HADM 390, 18 HADM credits or approval of program director)
A supervised Health Administration work experience within an approved organizational setting. Requires *120 hours in the field* and a minimum of 18 hours of on-campus, faculty-led seminar. Graded Satisfactory or Unsatisfactory. Students must provide their own transportation.

## HADM 390 - Career Seminar

1 cr.

A survey of current trends and occupations in health administration, with an emphasis on advanced planning and preparation for the required internship experience.

## HADM 395 - Global Health Care Systems

3 cr.

(Prerequisites: HADM 111, HADM 112, and HADM 211. HADM 517 {Specialization only})

Global health care services and systems in selected countries are emphasized. A foundation for understanding, comparing, and analyzing global health care systems is provided. Focus on public health, determinants of health and illness, health status indicators, health policy, how health care services and systems are organized, structured, financed, and delivered. International travel is required.

## HADM 441 - (EPW) Issues in Health Care Administration

3 cr.

(Prerequisite: HADM senior)
A capstone course in which students demonstrate knowledge attained throughout the HADM curriculum as well as the ability to apply that knowledge in a practical manner through completion of a "mega case study" utilizing a small administrative group/team approach. *Includes community based learning component.*

## HADM 480 - Internship in Long-Term Care Administration

12 cr.

(Prerequisite: approval of HADM director)
A practical internship in a licensed long-term care facility under the supervision of a licensed nursing home administrator. Students spend *520 hours per semester in the field placement* and 15 hours in on-campus seminars. Students must accumulate 1,000 hours of internship experience by taking HADM 480 in both the fall and spring semesters of their senior year. Students must provide their own transportation.

## HADM 481 - Internship in Health Administration

3 cr.

(Prerequisite: HADM 380)
A supervised Health Administration work experience of *150 hours within an approved organizational setting*. Graded satisfactory or unsatisfactory. Students must provide their own transportation.

## HD 224 - Family Development

3 cr.

(Prerequisite: PSYC 110)
This course will explore the reciprocal interactions among children and parents as related to the development of all individuals in the family. Topics covered include the roles of family members, parenthood and marriage, parenting at specific developmental stages, families with single parents, families with exceptional children, and child abuse. Not regularly scheduled.

## HD 325 - Abnormal Child Psychology

3 cr.

(Prerequisites: PSYC 110, PSYC 225)
This course considers atypical social, emotional, and mental development during childhood and adolescence. Topics include intellectual disability, giftedness, learning disorders, psychopathology of childhood and adolescence, and conduct disorders. Offered alternating years.

## HD 334 - Couple and Family Therapy

3 cr.

(Prerequisites: PSYC 110, PSYC 225)
An introduction to the theory, research, and practice of couple-counseling and family therapy. Topics include family dysfunctions, assessment methods, treatment approaches, innovative techniques, and research findings. Not regularly scheduled. (Credit cannot be earned for both PSYC 334 and HD 334.)

## HEBR 101-102 - (CF) Biblical Hebrew

3 cr.

(HEBR 101 is a prerequisite for HEBR 102)
A systematic introduction to the fundamentals of Biblical Hebrew grammar and to certain aspects of ancient Semitic language and culture. Offered in rotation with Greek.

## HIST 110 - (CH) History of the United States to 1877

3 cr.

The political, constitutional, social, and economic development of the United States from the colonial period through the era of Reconstruction.

## HIST 111 - (CH) History of the United States from Reconstruction to the Present

3 cr.

The political, constitutional, social and economic development of the United States from Reconstruction to the present.

## HIST 120 - (CH) Europe: 1500 to the Present

3 cr.

European history with concentration upon the political aspects of European development. The rise of national monarchies; political, social, economic and intellectual developments; industrialism, the new nationalism and liberalism.

## HIST 121 - (CH) Europe: 1815 to Present

3 cr.

European history with concentration upon the political aspects of European development. The rise of national monarchies; political, social, economic and intellectual developments; industrialism, the new nationalism and liberalism

## HIST 125 - (CH,D) Colonial Latin America

3 cr.

An introduction to colonial Latin American history: Amerindian civilizations; the Spanish and Portuguese colonial period, with emphasis on the themes of conquest, colonialism, race, class and gender.

## HIST 126 - (CH,D) Modern Latin America

3 cr.

An introduction to modern Latin American history: the Latin American republics, with emphasis on the themes of nation building, dictatorship, cultural identity, revolutionary movements, and inter-American relations.

## HIST 130 - (CH,D) World History I

3 cr.

The course examines the history of human experience from a global perspective with particular attention to political, economic, and social change. World History I begins with human origins and proceeds through ancient civilizations to about 1500 A.D.

## HIST 131 - (CH,D) World History II

3 cr.

The course examines the history of human experience from a global perspective with particular attention to political, economic, and social change. World History II begins about 1500 A. D. and comes to the present.

## HIST 132 - (CH,D) Africa to 1870

3 cr.

The course surveys the history of Africa south of the Sahara Desert from the earliest time to the late 19th century. Focus is on the technological, ecological, economic, and cultural history of early Africa.

## HIST 133 - (CH,D) Africa Since 1870

3 cr.

The history of Africa south of the Sahara Desert from 1870 to the present, focusing on colonization, independence, and the struggles and frustrations of contemporary African states.

## HIST 190 - (FYOC,FYDT) Digital History

3 cr.

Digital History teaches students how to research, evaluate, and collaborate on historically-based digital projects. Students will learn the underlying values of the digital humanities, debate the function of open access research in a democracy, and present their findings in digital and traditional formats.

## HIST 211 - The Third World: Empire to Independence

3 cr.

A study of the developing nations with the developed nations in the contemporary world.

## HIST 212 - (D) Rebels, Rogues, and Reformers

3 cr.

A sociological cross-cultural, and psychohistorical approach to those folk heroes, political “expropriators” and bandits whose spectacular exploits have been romanticized and preserved through the centuries. Figures such as Robin Hood, Cartouche, Pancho Villa, Jesse James, Che Guevara and others will be considered.

## HIST 213 - (CH,D) Gender and Family in Latin America

3 cr.

(Prerequisite: One of the following – HIST 125, HIST 126, PS 219, SPAN 314, PHIL 242)
Examines the role of gender and family in Latin America from 1521 to present. Themes of gender roles, marriage, family and licit and illicit sexuality will be highlighted. Individual units will examine machismo, marianismo, relations of power and women in the workplace. Distinctions will be made according to race and class.

## HIST 214 - (CH,D) History of Contemporary World Politics

3 cr.

Deals directly with the history of the political, economic, and social issues that are current in international affairs including the future possibilities of world order and the crises of foreign policy making.

## HIST 215 - (CH,D) Church and Society in Latin America

3 cr.

(Prerequisite: One of the following – HIST 125, HIST 126, PS 219, SPAN 314, PHIL 242)
Examines the historic role of the Catholic Church in Latin America. Major themes include the conversion of New World peoples to Catholicism, syncretism, church and state, and liberation theology. Other units include indigenous religions and beliefs, Protestantism and Judaism in Latin America.

## HIST 216 - (CH,D) Race in American History

3 cr.

The course studies the role of race in American history from the colonial era to the present, focusing on the experience of African-Americans with consideration given to other racial and ethnic groups. Topics include: slavery; "Jim Crow" laws; the Ku Klux Klan; black migration of the 20th century; African-American community life; and the civil rights struggle.

## HIST 217 - (CH) History of American Catholicism

3 cr.

A survey of the significant events, trends, and individuals reflecting the Catholic experience in America from the earliest colonial settlements to the post-Vatican II era.

## HIST 218 - The World at War, 1939-45

3 cr.

Examination of the tactics, strategy, and global significance of World War II. The logistics and scope of the conflict. Importance of propaganda, patriotism and the people. Film-seminar approach. Film fee.

## HIST 219 - (CH,D) Modern World History

3 cr.

A study of change and development in the world during the 20th century. Emphasis on cultural, economic, and political differences between Western and non-Western states.

## HIST 220 - (CH) War and Modern Society

3 cr.

(Formerly H/PS 215)
Role of military force in international relations; historical background focusing on wars, American and European, of 19th and 20th century; theories of function of war; arms control and deterrence of war.

## HIST 221 - (CH,D) The American West

3 cr.

A study of acquisition, settlement, and development of the Trans-Mississippi West, including the mining, cattleman's and farmer's frontiers; Indian removal, and Manifest Destiny in Texas and Oregon.

## HIST 222 - (CH) The Civil War on Film

3 cr.

Since the first movies appeared, Americans have been trying to capture the drama and humanity inspired by the Civil War. This course examines the changing depictions of the conflict as a means of analyzing American collective memory and the way that the war was politicized long after it had been fought.

## HIST 223 - (CH) Irish History

3 cr.

A survey of key political, social, and economic changes in Irish life since the coming of Christianity. Topics include: society and the Church; the English connection; famine and emigration; Irish nationalism; independence and "The Troubles."

## HIST 224 - (CH,D) Ethnic and Racial Minorities in Northeastern Pennsylvania

3 cr.

Film-seminar approach to the study of various ethnic groupings in Northeastern Pennsylvania. Seeks to achieve better understanding of the immigrant's problems and accomplishments through use of documentary and feature films.

## HIST 225 - Imperial Russia

3 cr.

From the crystallization of political forms in the ninth century through the Kievan State, Mongolian Invasion, rise of Muscovy to the Eurasian Empire from the 17th to the end of the 19th century.

## HIST 226 - Russia from Revolution to Revolution

3 cr.

An examination of 20th-century Russia and the Soviet Union, beginning with the reign of Tsar Nicholas II and culminating with the breakup of the USSR and its aftermath. Analysis of the prerevolutionary Russia, the Bolshevik Revolution, Lenin and Stalin, World War II, the Cold War, the fall of communism and Russia's place in world affairs.

## HIST 227 - (D) The Civilization of Islam

3 cr.

An introduction to the history of Islamic civilization from the career of the Prophet Muhammad (c. 632 AD) to the eve of European colonization and imperialism.

## HIST 228 - Ancient History

3 cr.

A survey of ancient civilizations of the Near East and Mediterranean worlds. The culture, society and science of Mesopotamia and Persia; Egypt – the Gift of the Nile; the ancient Israelites; heroic, archaic, classical and Hellenistic Greece; republican and imperial Rome; the origins of Christianity.

## HIST 229 - Ancient History

3 cr.

A survey of ancient civilizations of the Near East and Mediterranean worlds. The culture, society and science of Mesopotamia and Persia; Egypt – the Gift of the Nile; the ancient Israelites; heroic, archaic, classical and Hellenistic Greece; republican and imperial Rome; the origins of Christianity.

## HIST 230-231 - Medieval History

6 cr.

The civilization of medieval Christendom from the fall of the Roman Empire to the beginning of the 14th century; its religious, social, economic, cultural and political aspects; the relationship between church and society, belief and life style, ideal and reality; the interaction between Western Christendom, Byzantium and Islam.

## HIST 232 - (CH) England, 1485 to 1714

3 cr.

The end of the Wars of the Roses; Tudor Absolutism, Henry VIII and Reformation; Elizabeth I; Renaissance and Elizabethan music and literature; the Stuarts; Colonialism; Commonwealth; Restoration; the Revolution of 1688; reign of Anne.

## HIST 233 - (CH) England, 1714 to Present

3 cr.

Parliamentary rule; Cabinet government; political parties; Industrial Revolution; 19th-century reforms; building of a British Empire; World War I; problems of readjustment; World War II; Britain and the world today.

## HIST 236 - Modern Germany: Unification and Empire

3 cr.

The 1815 Confederation; 1848 and the failure of liberalism; the Age of Bismarck; Wilhelm II and the “New Course”; World War I and the Collapse of the Empire.

## HIST 237 - Modern Germany: The Twentieth Century

3 cr.

The troubled birth of the Weimar Republic: the Ruhr Crisis; the Stresemann Era; economic collapse and the rise of Nazism; the Third Reich, and World War II; the two Germany's and the "economic miracle."

## HIST 238 - (CH,D) History of American Women: From Colonization to Mid-Nineteenth Century

3 cr.

A study of American women from the colonial era to the mid-19th century. Changes in the family, the workforce, women’s participation in politics and reform movements, and Native-American and African-American women.

## HIST 239 - (CH,D) History of American Women: From Mid-Nineteenth Century to the Present

3 cr.

A study of American women since the mid-19th century. The effects of industrialization on the family, women's participation in the workforce, the Depression and the family, women and war, the feminist movement, and the conservative response.

## HIST 240 - (D) Modern Italy

3 cr.

This course will examine major developments in Italian history from the Napoleonic invasion until current crises of the Republic. Important themes for discussion will be the unification movement, the liberal state, Fascism and anti-Fascist resistance, the postwar Republic, cultural and social change, and economic development.

## HIST 241 - Law in the Western Tradition

3 cr.

A survey of ideas about law in Western civilization from antiquity until the Civil War. Emphasis on the legal systems, such as the Hebrew, the Athenian, the Roman, the German, and the Catholic, that influenced the modern ideas about the law.

## HIST 242 - (CH,D) Modern East Asia

3 cr.

A survey of the history of East Asia from the 17th century to the present with a focus on China and Japan. Examines the transformation of political, economic, social, cultural and intellectual institutions in East Asia, and interactions with the outside world.

## HIST 243 - Modern Central Asia

3 cr.

This course will examine the history of Central Asia in the 19th and 20th Centuries. Located between the Russian, Chinese, and British Empires, and later as a part of the Soviet Union or one of its neighbors, this part of the world was at the center of global superpower competition. We will examine in detail the histories of Afghanistan, Kazakhstan, Mongolia, and Siberia.

## HIST 244 - (CH,D) History of Modern Japan

3 cr.

A survey of modern Japanese history from the early 17$^{th}$ century to the present. The course explores Japan's extraordinary transformations from a feudal/shogunate society to the first industrial power outside the West, and then to a global power, the driving forces and personalities that shaped these transformations, and the consequences.

## HIST 245 - (EPW,CH,D) History of Modern China

3 cr.

(Prerequisites: None, but any previous course related to any aspect of China would be helpful.)
A writing intensive course to explore China's path to modernization from the 17th century to the present. It examines the political, economic, social, cultural, and intellectual transformations in China, and the internal and external driving forces and personalities that have shaped these transformations.

## HIST 246 - China in the 20th Century & Beyond

3 cr.

(Formerly HIST 279)
A survey of the history, economy, culture, gender/ethnicity, and foreign relations of contemporary China from **the early twentieth century to the present.** The course explores China's extraordinary transformations in these various aspects during the twentieth and early twenty-first centuries, the driving forces (both internal and external) and individuals that shaped the changes, and the consequences.

(Offered alternate years)

## HIST 260 - (D) Native American History

3 cr.

This course takes a Native-centered approach to human life in North America. It begins with Native creation stories, spirituality, and the peopling of the Americas. It continues with European invasion and the threats posed to Native sovereignty that culminated with the creation of the United States. It continues to the present day with an emphasis on the adaptability of Native life in the modern world.

## HIST 261 - (D) Indigenous Peoples of the Americas

3 cr.

(Prerequisites: Any of the following courses or instructor permission HIST 110, HIST 111, HIST 125, HIST 126, HIST 260, ENLT 233)
This course will explore the history and traditions of the Native Peoples of the Americas. The people and region under consideration will vary by the year, however, the course will include both a classroom and travel component. As part of the travel students will visit sites of historic, religious, and cultural significance. Students may retake this course for credit.

## HIST 290 - (EPW) The Craft of the Historian

3 cr.

(Formerly HIST 140)
Introduction to the craft of the historian including the techniques of historical study, research and writing as well as historiography. Students will be given various exercises dealing with both primary and secondary sources to enable them to think historically through writing exercises based on historical questions.

## HIST 295 - (CH) Britain: Past and Present

3 cr.

(Prerequisite: any 100 level History course)
Combines with travel experience in Great Britain to introduce the student to the major historical, cultural, political, economic and social events in Britain's past and present.

## HIST 296 - (D,CH) Italian History and Heritage

3 cr.

Combines with a travel experience to introduce the student to Italy's cultural heritage and the history of the current Italian Republic. Students will visit sites of historic, artistic and religious significance as well as important places of the contemporary Italian republic.

## HIST 310 - Colonial America, 1607-1763

3 cr.

(Prerequisite: HIST 110)
The European background of the Age of Discovery; the founding of the British-American colonies; their political, economic and cultural development; British colonial policy and administration; the development of an American civilization.

## HIST 311 - American Revolution, 1763-1789

3 cr.

(Prerequisite: HIST 110)
Background to the War for Independence; British imperial policy; the development of economic and ideological conflicts; the military contest; British ministerial policy and the parliamentary opposition; the Confederation; the formation of the Constitution.

## HIST 312 - The Early National Period of American History, 1789-1824

3 cr.

(Prerequisite: HIST 110)
Beginning of the New Government; politics and diplomacy in the Federalist Era; Jeffersonian Democracy; the War of 1812; nationalism and sectionalism, Marshall and the rise of the Supreme Court.

## HIST 313 - The Age of Andrew Jackson, 1824-1850

3 cr.

(Prerequisite: HIST 110)
Politics and society in the Jacksonian Era, slavery and the antislavery crusade, American expansion in the 1840s; the Mexican War; the emergence of the slavery issue.

## HIST 314 - Civil War and Reconstruction, 1850-1877

3 cr.

(Prerequisite: HIST 110)
Crisis Decade, disintegration of national bonds; The War: resources, leadership, strategy, politics, monetary policy, diplomacy; Reconstruction: realistic alternatives, presidential and congressional phases, effects in the North and South.

## HIST 315 - America and the World, 1877-1929

3 cr.

(Prerequisite: HIST 111)
A study of American society from the end of Reconstruction through the "Roaring Twenties." Topics include the emergence of the U.S. as a world power; Populism and Progressivism; women's rights, the Spanish-American War and the First World War; immigration and Prohibition; race riots and cultural conflict.

## HIST 316 - (CH) From Depression to Cold War: 1929-1960

3 cr.

A study of American society from the Great Depression to the election of 1960. The course will focus on the New Deal; American entry into World War II; the origins of the Cold War; and America in the age of "consensus."

## HIST 317 - History of United States Immigration

3 cr.

(Prerequisites: HIST 110 and HIST 111)
A study of immigration to the United States with emphasis on the period from the Revolution to the restrictive legislation of the 20th century. Motives and characteristics of immigration. Experiences of newcomers.

## HIST 319-320 - Byzantine Civilization

6 cr.

The Byzantine Empire from its origins in the fourth century to its collapse in the 15th; the political and economic growth of the Empire with emphasis on its art and religion.

## HIST 321 - (CH) American Ideas and Culture

3 cr.

(Prerequisites: HIST 110)
History of American art, architecture, literature and thought; Colonial developments; the American enlightenment; the emergence of a national culture; Romanticism, post-Civil War realism in American art and literature; the intellectual response to the industrial order; the American mind in the 1920s; the intellectual and cultural response to the Depression; post–World War II developments.

## HIST 322 - (CH) American Ideas and Culture

3 cr.

(Prerequisites: HIST 111)
History of American art, architecture, literature and thought; Colonial developments; the American enlightenment; the emergence of a national culture; Romanticism, post-Civil War realism in American art and literature; the intellectual response to the industrial order; the American mind in the 1920s; the intellectual and cultural response to the Depression; post–World War II developments.

## HIST 323 - The Renaissance

3 cr.

A study of culture in Italy from the 14th to the 16th centuries. Humanism, art, historiography and politics will be emphasized.

## HIST 324 - The Reformation

3 cr.

The history of Europe during the era of religious revivalism (16th century). The course will focus on the magisterial Protestant reformers, the Catholic Counter-Reformation and dynastic politics.

## HIST 325 - French Revolution to 1815

3 cr.

(Prerequisite: HIST 120)
Historical antecedents; the philosophies; republicanism and the fall of the monarchy; Reign of Terror; the Directory; Napoleon; internal achievements; significance of the Spanish and Russian campaigns; and War of Liberation.

## HIST 326 - Europe in the Age of Absolutism

3 cr.

(Recommended for Background: HIST 120)
A study of the major political, social, economic and intellectual movements in Europe from the rise of royal absolutism until the outbreak of the French Revolution.

## HIST 327 - (CH,D,EPW) Race in Latin America

3 cr.

(Prerequisite: One of the following – HIST 125, HIST 126, PS 219, SPAN 314, PHIL 242)

Examines the history of race in colonial and modern Latin America and the Caribbean, 1492-present. We will look at how ideas about race changed over time and how those ideas affected the lives of different Latin Americans.

## HIST 330 - Europe, 1815-1914

3 cr.

(Prerequisite: HIST 121)
A study of 19th-century Europe concentrating on The Congress of Vienna and its aftermath, the Age of Nationalism and Realism, European Dynamism and the non-European world, and the Age of Modernity and Anxiety.

## HIST 331 - (CH) Recent U.S. History: 1960 to the Present

3 cr.

A study of American society since 1960. The course will focus on the New Frontier and Great Society; the Vietnam War; protest movements; Watergate; and the conservative response to these developments.

## HIST 333 - Twentieth-Century Europe to 1945

3 cr.

World War I; Treaty of Versailles; Russia becomes the USSR; social and cultural developments; the European struggle for security; Italian Fascism; rise of Nazi Germany; World War II.

## HIST 334 - Twentieth-Century Europe After 1945

3 cr.

Loss of colonial empires in Africa and Asia; development of the Cold War; Marshall Plan and NATO; Post-war prosperity; cultural and social developments; the Fall of Communism.

## HIST 335 - World War II, Cold War and Détente

3 cr.

The diplomacy of World War II; the development of the Cold War between the U.S. and the U.S.S.R. and the adoption of the policy of detente.

## HIST 336 - History of American Law

3 cr.

(Prerequisites: HIST 110-HIST 111)
Traces the history of ideas and concepts utilized by the courts, legislature, organized bar and administrative agencies to solve legal problems: and shows how American legal thought and reasoning developed from Colonial days to the present.

## HIST 337 - English Constitutional and Legal History

3 cr.

Anglo-Saxon basis; Norman political institutions; Magna Carta; beginnings of common law; jury system; Tudor absolutism; struggle for sovereignty; rise of House of Commons; democratic reforms; extension of administrative law.

## HIST 338 - American Foreign Relations 1776 - 1900

3 cr.

(Prerequisites: HIST 110)
A study of American diplomatic history and principles, including an examination of the American Revolution, the Early American Republic, The War of 1812, The Monroe Doctrine, Manifest Destiny, The Civil War, and the Spanish-American War.

## HIST 339 - 20th Century American Foreign Relations

3 cr.

(Prerequisites: HIST 111)
A study of American diplomatic history and principles including an examination of the Spanish American War, Latin American diplomacy in the 20th century, World War I, World War II, and the Cold War.

## HIST 340 - History of Urban America

3 cr.

(Prerequisites: HIST 110-HIST 111)
The evolution of cities in the United States from the founding of colonial settlements to the end of the 20th century. The nature of cities and urban life, the process and impact of urban growth, and the problems facing contemporary cities will all be considered.

## HIST 341 - Central Europe 1848 - 1989

3 cr.

This course will examine the history of four nations of Central Europe: the Austrians, Hungarians, Czechs, and the Poles, between the revolutionary years of 1848 and 1989. We will examine the history of each nation during this period. (Offered alternate years)

## HIST 350 - (CH) American Environmental History

3 cr.

Assuming a basic knowledge of U.S. History, the goal of this course is to expose students to the dialogue between humanity and nature in which cultural and environmental systems powerfully interact, shaping and influencing each other, without either side wholly determining the outcome. Topics that will be examined include Native American Ecology, the impact of European Colonization, the rise of the Market Economy, Westward Expansion, the rise of Twentieth-Century Industry, and the emergence of Ecology, and Globalization.

## HIST 379 - (CH,D) The United States and China: From the Eighteenth Century to the Present

3 cr.

An upper-level course to examine US-China relations from their first encounter in the eighteenth century to the present, the underlying dynamics, patterns and trends, and perceptions and/or misconceptions in the relationship. In addition to traditional focus on diplomatic, political, military, and economic relations, the course will explore other equally important but neglected aspects such as cultural, social, and psychological interactions as well as individuals who shaped the contours of the bilateral relationship. (Offered alternate years)

## HIST 382 - Guided Independent Study

1.5 cr.

Designed for academically successful students. Working under the direction of a faculty member, the student will explore a topic in history through a planned program of reading, research and writing.

## HIST 383 - Guided Independent Study

1.5 cr.

Designed for academically successful students. Working under the direction of a faculty member, the student will explore a topic in history through a planned program of reading, research and writing.

## HIST 390 - History Internship

3-6 cr.

A practical work experience which exposes the student to the nature of historical investigation, analysis, and/or writing in a museum, historical site, or public agency. Supervision by faculty and agencies.

## HIST 395 - Modern Germany History and Culture

3 cr.

This international travel course to Germany will take place primarily in its capital of Berlin, although we will visit Munich. We will explore the history, culture and politics of a country and a city at the center of modern Europe. The course will last two weeks and will consist of a series of class lectures, cultural activities community engagements, and visits to historic sites.

## HIST 490 - (EPW) Seminar in History

3 cr.

(Restricted to senior History majors or students with a Latin-American Studies concentration.)
An analysis of selected topics in history. Extensive readings. Historical research and writing stressed.

## HONR 187H - Honors Sophomore Seminar

1 cr.

(Prerequisite: Admission to the Honors Program)
The class serves as an introduction to the Honors Program and also models the research process more broadly. The course begins in the final days of intersession, giving students a retreat-like experience, and continues in the early days of the spring semester. It traces the nature of research across academic disciplines.

## HONR 287H - (CL,D) Honors Keystone Course

3 cr.

(Prerequisite: Admission to the Honors Program)

This team taught course, a requirement of the Honors program, puts students into conversation across or between academic disciplines around a particular topic, subject to change each time the course is offered. The course should satisfy up to two varying G.E. area requirements every semester. May be repeated for credit.

## HONR 387H - Honors Junior Seminar

1 cr.

Student-led discussions of contemporary non-fictional works chosen for their variety and their importance.

## HONR 487H - Honors Senior Seminar

1 cr.

(Formerly 489H)
Student-led discussions of the content, rationale, and methodology of Senior Honors Projects.

## HPRO 210 - (S) Introduction to Health Promotion and Disease Prevention

3 cr.

(Prerequisite: 2nd Year Standing)
This course will introduce students to the field of health promotion and disease prevention. Students will become familiar with concepts and trends in health promotion, clinical preventative services, wellness and health behaviors associated with preventing disease, relative organizations and certifications, national and state initiatives and related work-settings.

## HPRO 230 - (D,S) Multicultural Health

3 cr.

(Prerequisites: 2nd Year Standing)
This course overviews health promotion/disease prevention in the United States, including health promotion statistics, strategies/resources and health disparities (social justice). Areas highlighted are cultural and behavioral influences on disease, equity in prevention strategies, culturally competent and gender-specific interventions (i.e., people of color, women, the aged, people with disabilities/mental illness).

## HPRO 300 - Career Seminar in Health Promotion

1 cr.

(Prerequisite: Third year standing in Health Promotion Major)
Health Promotion majors will discuss health promotion career trends, career paths, graduate programs, professional employment and credentialing, ethical practice, and internships. Students will develop a plan for professional growth and development within the health promotion field.

## HPRO 310 - (EPW, S) Behavior Theory in Health Promotion and Practice

3 cr.

(Prerequisite: HPRO 210, HPRO 210 may be taken concurrently; 3rd Year Standing)
This course will explore health behavior theories and models. Students will learn how to apply behavior change theories to promote health in individuals, communities and populations.

## HPRO 320 - (EPW) Planning, Implementing and Evaluating Health Promotion Programs

3 cr.

(Prerequisite: HPRO 310)
This course introduces the planning models used in health promotion. Students will learn how to connect health behavior theories to program planning models to plan, implement and evaluate health promotion programs.

## HPRO 330 - (EPW) Research Methods in Health Promotion

3 cr.

(Prerequisite: HPRO 310)
Student will apply the research process to study and gain experience in the design, implementation, analysis, and interpretation of research in the field of health promotion.

## HPRO 340 - Advocacy and Health Communication

3 cr.

(Prerequisites: HPRO 310 and HPRO 320)
This course will introduce students to health communication methods, strategies and tools to advocate for health, health literacy and influence health policy. Students will apply the health advocacy communication model to study and gain experience in health communication.

## HPRO 400 - (S) Health and Wellness Coaching

3 cr.

(Prerequisite: HPRO 310)
The course will introduce students to concepts related to the psychology of wellness, the communication methods and the behavioral strategies used in health and wellness coaching. Students will apply and practice the basic principles and tools of being a health resource person and a wellness coach.

## HPRO 410 - Health Education Communication Methods and Techniques

3 cr.

(Prerequisite: HPRO 320 and senior status)
This course will introduce students to health communication including communication strategies, models, and theories to enhance delivery of health education programs in different settings. A variety of communication methods will be presented. Students will demonstrate these methods in community settings and in the classroom.

## HPRO 413 - Worksite Health Promotion

3 cr.

(Prerequisite: HPRO 410)
This course provides an overview of health promotion in the worksite including supporting theories and critical issues such as management support, economic benefits, and worksite health promotion professional standards. Focus is on implementing worksite health promotion programs. Implementation phases include needs assessment/evaluation, effective interventions, program marketing and organizational development.

## HPRO 480 - Internship in Health Education

3 cr.

(Prerequisite: Senior HP majors, all core HPRO courses completed, **cumulative GPA of 2.50 in major, background clearances**, CPR/First Aid, and **immunizations as required for site placement**.)
The 120-hour supervised internship is designed to provide an opportunity for students to use the concepts, techniques and theories learned in the classroom in professional community health education settings. Students are assigned tasks that enable them to develop competencies and increase their skills as entry-level health educators.

## HRS 111 - (S) Macro Human Resources

3 cr.

An introduction to the changing nature of work including trends, theories, concepts, and practices for maintaining an effective workforce.

## HRS 112 - Micro Human Resources

3 cr.

An introduction to the major functional areas of the human resources field.

## HRS 251 - (EPW) Performance Appraisal

3 cr.

A review of the performance management process including the design and implementation of job descriptions and of accompanying performance appraisal systems. *Includes community based learning component.*

## HRS 252 - (EPW) Workforce Education and Training

3 cr.

A study of the various organizational approaches to developing the skills and competencies of employees including the assessment of need, design, development, implementation, and evaluation of training. *Includes community based learning component.*

## HRS 284 - Special Topics

3 cr.

Selected topics in human resources are offered on a variable basis.

## HRS 293 - Research Applications in Human Resources

3 cr.

An introduction to research methodology as applied to human resources issues and problems with an emphasis on experimental and quasi-experimental designs.

## HRS 315 - Diversity

3 cr.

This course offers the student an opportunity for increased awareness regarding diverse cultures, effects of cultural diversity, the special needs of diverse cultures, workforce issues and multiculturalism. International management culture, strategy and behaviors are examined as well as diversity leadership and globalization.

## HRS 331 - Globalization and Human Resource Management

3 cr.

This course examines international human resource management (HRM), global integration, expatriation, global competition, transnational enterprises, conceptual models, comparative management, international strategies, HRM issues and problems, HRM processes and functions in international businesses, cross-cultural management, communication and culture, leadership across cultures, and motivating across cultures.

## HRS 340 - Compensation and Benefits

3 cr.

A study of both direct and indirect forms of compensation including legal requirements with a focus on internal and external equity.

## HRS 351 - (D) Recruitment, Selection, and Staffing

3 cr.

Study of the techniques, methods, and requirements for identifying, screening, evaluating, and selecting prospective job candidates. *Includes community based learning component.*

## HRS 353 - Human Resources Information Systems

3 cr.

An introduction to the various computer software applications related to the human resources field.

## HRS 354 - Employee and Labor Relations

3 cr.

A study of the process of analyzing, developing, implementing and evaluating the workplace relationship between employer and employee (including labor unions) to maintain and retain an effective, productive workforce.

## HRS 382 - Directed Study

3 cr.

An independent study experience on a specific human resources–related topic or a research project.

## HRS 390 - Human Resources Career Seminar

1 cr.

(Prerequisite: HRS major or minor)
A survey of current trends and occupations in Human Resources with an emphasis on advanced planning and preparation for the required internship experience and post-graduation career planning.

## HRS 441 - People Skills and Strategies

3 cr.

An in-depth study of leadership skills and strategies needed to deal most effectively with human behavior in organizations.

## HRS 480 - Human Resources Internship

3 cr.

(Prerequisites: HRS major or minor; HRS 390)
A supervised human resources work experience within an approved organizational setting. Requires at least 120 hours of human resources employment with an additional 18 hours of on-campus, faculty-led seminars and individual meetings.

## HRS 490 - Human Resources Leadership Seminar

3 cr.

(Prerequisites: HRS major or minor; HRS 390 and HRS 480)
Students will assess and develop their leadership skills and participate in an in-depth case study that integrates previous learning. *Includes community based learning component.*

## HUM 286H - (C) Victorian Studies

3 cr.

This course uses literature to explore 19th-century British social and intellectual history. Focusing on the period from 1832 to 1901, it examines Victorian attitudes toward industrialization, religion, art and gender.

## HUM 296 - (CI) Dante's Inferno and the Florence of His Times

3 cr.

This course in English examines selections from Dante's *Inferno*, elements of medieval thought and imagery and Dante's representation of Florence and its politics. Includes visits to architectural and artistic sites significant to Dante's life and work. Fulfills requirements in the Italian Studies concentration but not the Italian minor or major.

## IB 476 - U.S.-East Asia Trade and Investment

3 cr.

(Prerequisite: ECO/IB 351)
This course describes and analyzes trade and investment flows between the U.S. and Japan, China, Korea and Taiwan. Topics covered in the course include: economic trends in these countries, U.S. trade and investment with them, U.S. trade deficit, trade policies of the U.S. and these countries, analysis of Japan's Keiretsu, Korea's Chaebol, China's MFN status and Taiwan's environmental problems.

## IB 477 - European Business

3 cr.

(Prerequisite: ECO/IB 351)
This course introduces the student to the European business environment, focusing on the implications for international business operations and competitiveness. This includes the study of rapidly changing business environments throughout Europe, especially the nations of the European Union (EU). The elimination of barriers to trade, and the response of companies inside and outside the EU to the threats and opportunities of both the Single Market and the Euro Zone are examined.

## IB 478 - Business in China

3 cr.

(Prerequisite: ECO/IB 351)
This course introduces the student to the dynamic business environment in the People's Republic of China, focusing on the implications for international business operations and competitiveness.

## IB 495 - European Business Experience

3 cr.

(Prerequisites: MGT 351, MKT 351, ECO/IB 351)

Students will have an opportunity to participate in lecture-discussion sessions with top-level executives from various multinational corporations, local business firms and government agencies in a number of different countries in Europe. Participants will gain a basic understanding of the issues prominent in international business today. Course involves travel to Europe. (Credits cannot be earned for IB 495 and MGT 495 and MKT 495.)

## INTD 103 - (D) The Vietnam Experience

3 cr.

The historical origins of the Vietnam War, including the period of French colonialism and the American intervention; the politics, economics, and military strategy in Vietnam during the war years and today; present relations with China and the USSR. Why were we there and why did we fail?

## INTD 104 - (D,E) Men's Health

3 cr.

The course will examine the historic, physiologic, social, cultural, emotional and economic issues affecting men's health. The course explores strategies to assist students to gain information regarding men's health issues, adopt healthier lifestyles, and use health care services appropriately. Health issues related to culture and diversity will also be addressed. Class members will be expected to actively participate in all discussions.

## INTD 105 - Great Lives: Images on Stage

3 cr.

An examination of the often contrasting impressions of historical personalities, as they are portrayed in plays and films and as they appear to historians. Historical figures to be considered include Caesar, Richard III, Thomas More, Lincoln and Churchill.

## INTD 108 - Health and Legal Implications of Chemical/Drug Abuse

3 cr.

A team-taught course that deals with the neurophysical, health, and legal implications of alcohol/drug abuse, via: its biochemical effects and aspects, its legal and social consequences, and its health and lifestyle implications.

## INTD 109 - (CA,Q) Mathematics and the Visual Arts

3 cr.

A study of mathematical topics related to art, architecture, and design through the ages. Topics include: musical ratios, golden ratio, polygons, tilings, symmetry, circles, spirals, Platonic solids, perspective, and fractals. Visual artists include: Vitruvius, Palladio, Le Corbusier, Villard de Honnecourt, Leonardo, Dürer, Escher, and Greek, Islamic, and Indian designers.

## INTD 110J - The Jesuit Magis

3 cr.

For nearly 500 years, the Society of Jesus has been committed to pursuing the *magis*, a restless desire for excellence grounded in gratitude. Among other things, this course will explore the foundation of this concept in the life of Ignatius of Loyola and his spirituality. We will consider what role the *magis* has played in the span of Jesuit history, with particular focus on its implications for Jesuit education. Finally, we will ask what it means to be women and men of the *magis* – the shared call of each member of this University community, especially students in SJLA.

## INTD 112 - (FYOC,FYDT) EP Foundation

3 cr.

This course is designed to foster knowledge and abilities needed for gathering, evaluating and disseminating information. Students will gain insight and understanding of digital technology and learn to make effective, responsible and prudent use of it. Students will make effective use of oral communication as a way to disseminate thoughts and information in conversation, discussion, and the public sphere.

## INTD 115 - Legal Studies Fundamentals

3 cr.

This course is designed as an introduction to the foundational theory of and skills essential to legal studies. As such, it functions as the cornerstone of the Legal Studies concentration, although any student may enroll.

## INTD 117 - Writing, Research and Speaking

6 cr.

Students will make the transition from high school to college-level writing, research & speaking through a series of workshops, conferences, writing assignments & oral presentations. This course satisfies both the Oral Communication & the Written Communication requirements in the University's General Education curriculum.

## INTD 209 - (D) The Holocaust

3 cr.

An exploration of the cataclysmic event in Jewish history known as the Holocaust. The course will examine the subject from the perspective of various academic disciplines – historical, sociological, philosophical, artistic, and literary, among others – and will include a field trip to the Holocaust Museum in Washington, D.C.

## INTD 210 - (P, E) Catholic Bioethics: Biotechnology and Human Dignity

3 cr.

The current scientific understanding of human fertilization and development, reproductive technologies, human cloning, stem cell research, gene and medically defined death will be reviewed. Pertinent ethical considerations will be discussed, presenting the Catholic perspective in dialogue with the major philosophical approaches.

## INTD 211 - (D,E) HIV/AIDS: Biological, Social and Cultural Issues

3 cr.

(Prerequisite: C/IL 102/102L or equivalent)
Study of the biology of HIV and AIDS, impact of the epidemic on various social groups and countries. The epidemiology of the disease and the response of health-care systems and governments. Opportunity for American Red Cross certification in basic HIV facts and eligibility for HIV Instructor certification will be included as part of the course. Open to all majors.

## INTD 212 - The Loyola Experience

3 cr.

This course is an interdisciplinary study of the life of St. Ignatius Loyola. The course is recommended as a companion to *The Loyola Experience: An Ignatian Pilgrimage.* The pilgrimage retraces the steps of the early Jesuits, visiting important Ignatian sites in Spain and Rome, from Loyola castle in the Basque region of Spain to the Gesu in Rome.

## INTD 239 - (E) Physics of Theatre

3 cr.

An introduction to the physics of lighting, sound and special effects in the context of theatrical production. Readings will explore both underlying physics and theatrical aesthetics. Assignments include applications in color, reflection and refraction of light, acoustics and aesthetics in sound, and an exploration of special effects such as stage fog.

## INTD 250 - Integrating Your Immersion Experience

1 cr.

(Pre-requisite: To be eligible, students must have completed either a service trip of at least one full week, or relevant study abroad course or program within one year before the course begins. The experience may have been domestic or international.) According to the Ignatian Pedagogical Paradigm, genuine education requires a process of reflection to follow experience before moving into action. Such a process is particularly important for students who have had an immersion experience among the economically disadvantaged. This course offers such students the opportunity to reflect on, process and analyze what they have experienced in a variety of ways.

## INTD 290 - Leadership and Civic Responsibility

3 cr.

This course, which follows the Presidential Colloquy and bridges students' first and second years, nurtures their leadership skills and sense of civic responsibility. The course is designed to foster students' sense of what they wish to accomplish during their undergraduate experience along with their understanding of the larger social implications of their studies, their community involvement and their lives. Students engage in interdisciplinary readings and discussions, real-time shared reflection on the meaning of their summer employment and civic engagement, and the mentoring of incoming freshmen.

## INTD 314 - (D) Women Making History in Pennsylvania

3 cr.

(Prerequisites: WRTG 105, WRTG 106, WRTG 107 or equivalent)
The seminar-style course focuses on women's history in northeastern Pennsylvania, 1880-1945. Students will identify, research and analyze primary documents to enrich the fund of knowledge on women's history in the state. Some travel is planned to historic sites in the region. Topics engage disciplines from science to law to art.

## INTD 333 - (CA,P) The Bible in Image and Text

3 cr.

This team-taught course is a study of the interpretation of major biblical stories and figures in the Christian theological tradition and in art history. The marriage of Christian text and image is a natural and long-lived one; it provides an exciting way to integrate knowledge of various major themes such as creation and last judgment, and of many great biblical figures, such as Moses and Christ.

## IS 390 - Seminar in International Studies

3 cr.

Required for International Studies majors. Other advanced undergraduates may take this course with permission of the professor. This course may be used for either History or Political Science credit.

## IT 112 - (FYDT,FYOC) Introduction to Computing and Information Technology

3 cr.

This course presents foundational concepts and surveys the past, present and future of computing and information technology with an emphasis on the seminal ideas, concepts, inventions and innovations that fuel the Digital Revolution. The sub-disciplines of computing are identified and discussed relative to each other. This course is designed to foster knowledge and abilities needed

for gathering, evaluating and disseminating information with an emphasis on digital technology and oral communication. (Credits may not be earned for both CMPS 112 and IT 112.)

## IT 120 - Human-Computer Interaction

3 cr.

(Formerly CMPS 202)A course that covers fundamental aspects of web design and development. Topics include design principles, coding HTML and cascading style sheets, JavaScript to create dynamic web pages, server-side vs. client-side technologies, and using a Content Management System that separates design from content while making it easy for non-technical users to update a web site.

## IT 210 - System Administration

3 cr.

(Prerequisites: CMPS 134 and MATH 142)
Introduces students to system administration and maintenance as well as platform technologies. Includes operating systems, applications, administrative activities and domains, computer architecture and organization, and computing infrastructure.

## IT 241 - Fundamentals of Information Management

3 cr.

(Prerequisites: CMPS 134 and MATH 142)
This course introduces students to databases and information management. Topics include query languages, database organization and architecture, data modeling, managing the database environment, and special-purpose databases.

## IT 244 - Integrative Programming

3 cr.

(Co-requisites: CMPS 144 and IT 210)
The application of information technologies presents many situations where systems and applications, that were not initially designed to work together, need to do so. This course introduces students to commonly used representations, languages, interfaces, models and practices pertinent to such integrative situations. Students will gain experience using and developing software to accomplish integration. The course also presents an overview of programming languages, presenting both a conceptual foundation and a survey of relevant scripting languages.

## IT 310 - (EPW) System Integration & Architecture

3 cr.

(Prerequisites: IT 210 and IT 244)
Introduces students to the techniques, principles, and issues related to system integration and architecture. Topics include requirements analysis, acquisition, sourcing, integration, project management, testing and quality assurance, organizational context, and architecture.

## IT 354 - Computer Networks

3 cr.

(Formerly CMPS 311) (Prerequisite: CMPS 144)
An introduction to intranets and wide-area networking including operating systems fundamentals, hardware considerations, deployment and administration of networks, security issues, intrusion detection/protection, firewalls, VPN's and encryption.

## IT 356 - Web Programming

3 cr.

(Prerequisites: IT 120 and IT 244)
This course covers all aspects of programming on the World Wide Web. This includes the presentation of HTML, Java, JavaScript and CGI. Topics include advanced HTML (maps, forms, etc.) client-server programming basics as they relate to the Web, Java machine concepts, Java/JavaScript similarities and differences, server-side programming, GIF animations, Web programming resources and environments. (Students may not earn credit for IT 356 and CMPS 356.)

## IT 358 - Information Assurance & Security

3 cr.

(Prerequisites: IT 241 and IT 356)
This course provides the foundation for understanding the key issues associated with protecting information assets, determining the levels of protection and response to security incidents, and designing a consistent, reasonable information security system, with appropriate intrusion detection and reporting features.

## IT 384 - Special Topics

3 cr.

Study of selected topics in Information Technology. A syllabus including prerequisites is published prior to the registration period for the course.

## IT 481 - Internship

3-6 cr.

(Formerly MIT 481)
This is an extensive job experience in information technology that carries academic credit. Prior approval is required. Course can be taken more than once.

## IT 490 - (EPW) Capstone Project

3 cr.

(Formerly MIT 490) (Prerequisite: IT 310 and permission of the department.)
In this course, students prepare and present Information Technology projects to be evaluated by the instructor and their fellow students.

## ITAL 101-102 - (CF) Beginning Italian

6 cr.

(Prerequisite: ITAL 101 or consent of instructor is normally the prerequisite to ITAL 102)
Introduction to the Italian language. Designed for beginners. Taught in Italian. *Includes activities inside and/or outside the classroom that involve Language Learning Center (language lab) resources.*

## ITAL 195 - (D) Italian Culture through the Image

3 cr.

This travel course explores aspects of Italian culture through the visual experience of photography. Students will familiarize themselves with the theories and techniques of famous Tuscan masters of photography and subsequently engage in photographic

assignments aimed at capturing the complexity of Italian culture past and present. Taught by University faculty from the Department of World Languages in conjunction with faculty at the Istituto Europeo in Florence.

## ITAL 211-212 - (CF,D) Intermediate Italian

6 cr.

(Prerequisites: ITAL 101-102 or equivalent and ITAL 211 or its equivalent is normally the prerequisite to ITAL 212)
*Completion of ITAL 212 satisfies one semester of the cultural diversity requirements*. Grammatical review, written and oral composition with selected cultural readings of intermediate difficulty. Taught in Italian. *Includes activities inside and/or outside the classroom that involve Language Learning Center (language lab) resources.*

## ITAL 295 - (CF,D) Intensive Italian Abroad

3 cr.

An intensive course of several hours daily at an institution in Italy. Taught in Italian.

## ITAL 311-312 - (CF,D) Advanced Italian Composition and Conversation

6 cr.

*(Prerequisite: ITAL 211-212 or equivalent)*
*Completion of ITAL 312 satisfies one semester of the writing-intensive requirements*. An intensive course in Italian composition and conversation with emphasis on detailed study of advanced grammatical and stylistic usage of the Italian language. Taught in Italian. *Includes activities inside and/or outside the classroom that involve Language Learning Center (language lab) resources.*

## ITAL 313 - (CL) Survey of Italian Literature I

3 cr.

(Prerequisite: ITAL 311-312 or equivalent)
This course, introduces students to 19th-and 20th-century Italian literature and to significant literary movements and figures from these periods. Taught in Italian.

## ITAL 314 - (CL) Survey of Italian Literature II

3 cr.

(Prerequisites: ITAL 311-312 or equivalent)
This course introduces students to Italian literature from the medieval period to the 18th century. It focuses on significant literary movements and figures from these periods. Taught in Italian.

## ITAL 315 - (D) Italian Culture and Society

3 cr.

An examination of Italian culture and society from the Renaissance to today. The course traces the development of Italian culture and society through primary texts, including essays, plays, short stories, films, opera and contemporary music, and sculpture and painting.

## ITAL 321 - (CL,D) Italian Short Story

3 cr.

(Prerequisites: ITAL 311-312)
This course will examine the Italian short story through a study of representative texts. Taught in Italian.

## ITAL 322 - Italian Theatre

3 cr.

(Prerequisites: ITAL 311-312 or equivalent)
This course will examine Italian theatre through a study of representative forms and texts. Taught in Italian.

## ITAL 333 - Italian Practicum

1 cr.

(Prerequisite: Enrollment in a FLaC course, that is, a course listed as E and F, English language or Foreign language credit bearing.)
A one-credit course in the target language to supplement FLaC courses (Foreign Language across the Curriculum) taught in English. In addition to doing their reading and writing in the target language, students receiving credit in the target language will meet an additional hour per week for discussion in that language. This course may be repeated for credit.

## ITAL 413 - (CL,D) Topics in Italian Studies

3 cr.

(Prerequisites: ITAL 311-312 or equivalent)
Studies of a specific author, period, movement, theme, and/or genre. Taught in Italian. Because topics may vary, the course may be repeated for credit with the consent of the Department chair.

## ITAL 439 - (CL,D) The Craft of Translation

3 cr.

(Prerequisites: ITAL 311-312 or equivalent)
In this course, students will undertake a series of translation and interpretation exercises and activities from Italian to English. Focus will be on the application of grammatical structures as well as on the interpretive qualities of transposing from one idiom to another. Taught in Italian.

## JPN 101 - (CF) Beginning Japanese

3 cr.

Development of the fundamental skills, listening, speaking, reading and writing, with emphasis on language performance. Emphasis on practical application of the basic skills for business-related activities. Relevant cultural aspects are introduced. Designed primarily for students with no background in the Japanese language. *Includes activities inside and/or outside the classroom that involve Language Learning Center (language lab) resources.*

## JPN 102 - (CF) Beginning Japanese

3 cr.

(Prerequisite: JPN 101 is normally the prerequisite to 102)
Development of the fundamental skills, listening, speaking, reading and writing, with emphasis on language performance. Emphasis on practical application of the basic skills for business-related activities. Relevant cultural aspects are introduced. Designed primarily for students with no background in the Japanese language. *Includes activities inside and/or outside the classroom that involve Language Learning Center (language lab) resources.*

## JPN 211 - (CF,D) Intermediate Japanese

1.5 cr.

(Prerequisites: JPN 101-JPN 102 or equivalent)
This course continues development of the four major skills: listening, speaking, reading and writing. Upon completion of the course students will understand all the basic concepts of the structure of the language. *Includes activities inside and/or outside the classroom that involve Language Learning Center (language lab) resources.*

## JPN 212 - (CF,D) Intermediate Japanese

1.5 cr.

(Prerequisites: JPN 101-JPN 102 or equivalent; JPN 211 or its equivalent is normally the prerequisite to 212)
This course continues development of the four major skills: listening, speaking, reading and writing. Upon completion of the course students will understand all the basic concepts of the structure of the language. *Includes activities inside and/or outside the classroom that involve Language Learning Center (language lab) resources.*

## JPN 311 – (CF) Japanese Conversation

3 cr.

(Prerequisites: JPN 211-JPN 212 or equivalent, as determined by placement exam)
Reading-based conversation stressing development of self-expression in Japanese. Taught in Japanese. Includes activities inside and/or outside the classroom that involve Language Learning Center (language lab) resources.

## JPN 312 - (CF) Advanced Japanese II

3 cr.

(Prerequisites: JPN 101 - JPN 102 or equivalent; JPN 211 or its equivalent is normally the equivalent to 212.)
This course continues development of the four major skills: speaking, reading and writing. Upon completion of the course students will understand all the basic concepts of the structure of language. Includes activities inside and/or outside the classroom that involve Language Learning Center (language lab) resources.

## KNES 101 - Weight Training

1 cr.

(Formerly EXSC 101)
Activity-based course providing a combination of skill development and instruction in weight training for physical fitness. Students will be educated in the core compound weight training exercises and the benefits of weight training. (Credits cannot be earned for both PHED 101 and KNES 101)

## KNES 110 - (FYDT,FYOC) Introduction to Kinesiology

3 cr.

(Formerly EXSC 110)
Kinesiology is the study of physical activity, within this are the subdisciplines of exercise physiology, motor behavior, biomechanics, and exercise psychology. This course will introduce these subdisciplines as well as explore what experts in Kinesiology engage in, from research to practice, and organizations and careers available for the health/fitness professional.

## KNES 112 - First Aid/CPR/AED

1 cr.

(Formerly PHED 112 and EXSC 112)
This course leads to American Red Cross certification in CPR, First Aid, and Automated External Defibrillation (AED). Prepares students to recognize and respond to respiratory, cardiac, and other emergency situations.

## KNES 113 - First Aid/CPR American Heart Association

1 cr.

(Formerly PHED 113 and EXSC 113))
This course leads to American Heart Association certification in CPR, First Aid, and Automated External Defibrillation (AED). Prepares students to recognize and respond to respiratory, cardiac, and other emergency situations.

## KNES 210 - Sport and Exercise Physiology

3 cr.

(Prerequisite: BIOL 110 and BIOL 110L or BIOL 141 and 141L. Corequisite: BIOL 111 and 111L or BIOL 142 and 142L)
This course explores the physiological principles and systems underlying sport performance – aerobic and anaerobic energy, oxygen transport, and muscular and cardiovascular systems. *Students will learn how to apply the principles to improve human performance.*

## KNES 212 - Nutrition in Exercise and Sport

3 cr.

(Formerly EXSC 212) (Prerequisites: KNES 210 or CHEM 112-113, and one of the following NUTR 110, NUTR 220 or BIOL 255 or permission of instructor)
Role of nutrients in optimizing human performance. Consideration of caloric and nutrient exercise requirements, gender-specific needs, weight loss/eating disorders, and nutritional ergogenic aids. *Includes service-learning component.*

## KNES 229 - Applied Anatomy and Kinesiology

3 cr.

(Formerly EXSC 229) (Prerequisite: BIOL 110 -111 or BIOL 141-BIOL 142)
This course is designed to provide the student with basic scientific information and an understanding of human motion within the areas of anatomy and neuromuscular physiology.

## KNES 240 - Prevention and Care of Sports Injuries

3 cr.

(Formerly EXSC 240) (Prerequisites: KNES 229)
Will cover sports first aid, prevention of and dealing with sports injuries. Helps students become competent first responders in sports emergencies. Students will learn how to recognize and prevent common sports injuries and administer appropriate first aid. Also covers procedures for evaluating and caring for injuries, guidelines for rehabilitation and therapeutic taping.

## KNES 313 - Biomechanics of Human Movement

3 cr.

(Formerly EXSC 313) (Prerequisites: PHYS 120/PHYS 120L, KNES 229)
This course provides an introduction to the principles and analysis of biomechanics, emphasizing the contribution of biomechanics to understanding human movement, and develops an understanding of mechanical and anatomical concepts related to human performance in various biomechanics disciplines.

## KNES 360 - Essentials of Strength Training and Conditioning

3 cr.

(Formerly EXSC 360) (Prerequisites: KNES 229)

This course examines the advanced methods and techniques associated with the design of strength and conditioning programs to enhance human performance in sport and fitness.

## KNES 375 - Exercise Testing/Programming for Health and Performance

3 cr.

(Formerly EXSC 375) (Prerequisites: KNES 210, Exercise Science major or permission of instructor)
Provides knowledge related to Graded Exercise Testing and counseling, including purposes, basic exercise ECG, energy costs of exercise, principles of exercise prescription, special populations, and case study.

## KNES 380 - Internship in Kinesiology

variable credit

(Formerly EXSC 380) (Prerequisites: KNES 375, Kinesiology major)
The application of Kinesiology principles, knowledge and skills in a supervised setting. Depending on career interests, students can select from a variety of interest including sites located outside of the Northeast region.

## KNES 412 - Current Topics in Exercise Science and Sports Medicine

3 cr.

(Prerequisite: KNES 210 or BIOL 347 or permission of instructor)
Current topics in the field affecting health and human performance including ergogenics, exercise benefits in chronic, disease states, clinical exercise physiology, and age/gender issues.

## KNES 435 - (D) Exercise, Nutrition and Women's Health

3 cr.

(Formerly EXSC 435) (Prerequisites: NUTR 110 or NUTR 220 or BIOL 255)
This course is designed to address the major aspects of women's health, including historical, epidemiological, clinical, exercise, nutrition, special populations, cultural and psychosocial issues. *Includes service-learning component.*

## KNES 440 - (EPW) Advanced Physiology of Sport and Exercise

3 cr.

(EXSC 440) (Prerequisite: Fourth-year standing in Kinesiology)
Advanced concepts of human performance as related to sport and exercise including physiological limits, Bioenergetics, fiber type/myoplasticity of skeletal muscle, cardiovascular dynamics and the athletic heart, and pulmonary ventilation and aerobic performance.

## KNES 442 - Clinical Exercise Physiology

3 cr.

(Formerly 442) (Prerequisite: KNES 210 or BIOL 347 or permission of instructor)
This course covers exercise response and adaptation in a variety of chronic lifestyle diseases and the use of exercise tolerance assessment to improve and optimize quality of life. *Includes service-learning component.*

## KNES 448 - (EPW) Research Methods in Exercise Science

3 cr.

(Formerly EXSC 448) (Prerequisite: KNES 375)

Designed for the student to study and gain experience in research related to the field of Exercise Science. The nature of research, methods for acquiring, analyzing, and publishing/presenting research relevant to Exercise Science.

## LA/WS 395 - (S,D) Women and Development in Latin America

3 cr.

(Prerequisite: At least one of the following: PS 219; SOC 220; HIST 125, HIST 126 or HIST 213; PHIL 218, PHIL 231; WOMN 215/SOC 315 or have permission of the instructors.)
This travel course takes students to visit one or more women's economic cooperatives in Latin America. Through reading, reflection, and site visits, students will be challenged to understand the burdens placed on women in Latin America as well as the roles that women have played in that region's development.

## LANG 493 - Senior Portfolio

0 cr.

(Prerequisite: Senior status)
Seniors WLC majors will produce a portfolio in their senior year. A compilation of materials that the student assembles carefully to document and discuss academic development and learning experiences in the major, the portfolio is an organizational tool and a vehicle for self-reflection of work done in the target language.

## LAS 295 - (S,D) Mexican Culture and Language

3 cr.

An intersession travel course to Mexico. Team taught by University of Scranton faculty with assistance from local Mexican faculty. *Taught in conjunction with SPAN 295.* During three weeks, the student will learn an approximate conception of the principle events of Mexican history from the time of the Pre-Hispanic era to our current times with a comparative look to the United States.

## LAT 111 - (CF) Beginning Latin

3 cr.

An intensive course in the fundamentals of Latin reading and composition.

## LAT 112 - (CF) Beginning Latin

3 cr.

An intensive course in the fundamentals of Latin reading and composition.

## LAT 205 - History of Latin Literature

3 cr.

A survey of Roman and post-Roman Latin literature. Taught in English.

## LAT 211 - (CF) Intermediate Latin

3 cr.

(Prerequisites: LAT 111-LAT 112 or equivalent)
Review of fundamentals. Reading of selections from Caesar, Cicero and Virgil.

## LAT 212 - (CF) Intermediate Latin

3 cr.

(Prerequisites: LAT 111-LAT 112 or equivalent)
Review of fundamentals. Reading of selections from Caesar, Cicero and Virgil.

## LAT 213 - (CL,D) Classical Roman Literature and Mythology

3 cr.

The course examines the role that mythology played in Roman literature, and examines the changing attitudes of the Romans toward the divinities, manifested in literature from Plautus to Apuleius. All readings and lectures in English.

## LAT 220 - Ancient Civilization: Rome

3 cr.

The political, constitutional, and cultural history of Rome from the earliest times to the end of the Western empire. All readings and lectures in English.

## LAT 311 - Readings in Latin Literature

1.5-3 cr.

(Prerequisites: LAT 211-LAT 212 or equivalent)
Selections from Latin writers to suit the students' special interests. Topics will vary from year to year; the course may, therefore, be repeated for credit.

## LAT 312 - Readings in Latin Literature

1.5-3 cr.

(Prerequisites: LAT 211-LAT 212 or equivalent)
Selections from Latin writers to suit the students' special interests. Topics will vary from year to year; the course may, therefore, be repeated for credit.

## LAT 482 - Guided Independent Study

Variable Credit

(Prerequisites: LAT 211-LAT 212; junior or senior standing)
A tutorial program with content determined by mentor.

## LAT 483 - Guided Independent Study

Variable Credit

(Prerequisites: LAT 211-LAT 212; junior or senior standing)
A tutorial program with content determined by mentor.

## LIT 105 - (CL,D) Introduction to World Literature in Translation

3 cr.

This course introduces students to significant works in English translation of world literature, while introducing the genres of narrative (fiction and non-fiction), poetry, and drama, and the critical terminology needed to discuss them. Taught in English. Readings may vary.

## LIT 106 - History of World Cinema

3 cr.

A survey of films from a broad range of national traditions. Topics include: the nature and value of world cinema as a perspective and approach to the critical analysis of film; constructing meaningful historical and international comparisons; cultures of production and distribution; spectatorship and performance cultures; genres; movements; and styles.

## LIT 121 - (D) The Italian-American Experience I: Italian-American Culture

3 cr.

This course investigates the cultural production through which Italian immigrants to the United States have expressed their lives in America, the experiences of emigration and immigration and adaptation and assimilation, and the issues involved in developing a new identity in their new home. Taught in English.

## LIT 123 - (D) The Italian-American Experience II: Italians in Hollywood

3 cr.

(No prerequisites, but completion of LIT 121 - (D) The Italian-American Experience I: Italian-American Culture is recommended.)
From its inception, Hollywood has exploited a recurrent set of stereotypes to portray Italians. This course examines these stereotypes and investigates filmmakers' responses to the conventional typecasting of Italians. Taught in English.

## LIT 205 - (CL,D) Modern Latin-American Literature in Translation

3 cr.

A survey in English of modern and contemporary Latin American writers.

## LIT 207 - (CL,D,EPW) Literature of Global Minorities

3 cr.

Examination of racial and ethnic groups in the Americas and across the globe. Examination of the historical context and current situation of indigenous or diasporic minorities, women-as-minority, and other marginalized groups. Readings in English translation from literature and other disciplines. Cross listed with Women's Studies Concentration and the Peace and Justice Program.

## LIT 208 - (CL,D) French Masterpieces in English Translation

3 cr.

The study of selected major works from the leading French writers of the 19th and 20th centuries who have made an important contribution to the development of Western civilization. Such authors as Stendhal, Flaubert, Gide, Proust, Camus and Malraux will be discussed. Taught in English.

## LIT 209 - (CL,D) Masterworks of Russian and Slavic Literature

3 cr.

A survey of major literary achievements of Slavic peoples, including Dostoyevsky and Tolstoy. No knowledge of Slavic languages is required. All readings and lectures are in English.

## LIT 220E/220F - (EPW,D,CL) Fairytales

3 cr.

(Prerequisites: Students taking the course for German language credit must have completed four semesters of college-level German or obtain permission of the instructor.)
Today, fairytales are an important part of children's literature and constitute broadly understood points of Western cultural reference. This seminar goes beyond contemporary tales to identify and interpret historical, political, and ideological dimensions of fairytales. Special attention to German Romanticism; Central European nationalisms; theories of culture and psychology; and gender. May be taken in combination with a one-credit language practicum, GERM 333, for German credit.

## LIT 221E/221F - (EPW,CL,D) Italian Women's Writing

3 cr.

This course addresses women's voices and experiences in 20th century Italian literature and film. LIT 221E is taught in English and cannot count toward the Italian major or minor; LIT 221F is taught in conjunction with ITAL 333 and may count toward the Italian major or minor by arrangement with the professor.

## LIT 223E/223F - (D) Italian Cinema

3 cr.

A study of films by some of Italy's major directors. Focus on theme, style, and the impact of historical and cultural events on the films. Films with subtitles. LIT 223E is taught in English and cannot count toward the Italian major or minor; LIT 223F is taught in conjunction with ITAL 333 and may count toward the Italian major or minor by arrangement with the professor.

## LIT 323E/323F - (EPW,D) Topics in French and Francophone Cinema

3 cr.

The course offers an in-depth exploration through cinema of issues in Francophone culture such as gender, women's rights, and post-colonial identity. LIT 325E is taught in English and cannot count toward the major or minor; LIT 325F is taught in conjunction with FREN 333 and may count toward the French and Francophone Studies major or minor by arrangement with the professor.

## LIT 325E/325F - Gender in Italian Cinema

3 cr.

The course investigates the representation of femininity and masculinity in Italian cinema. Taught in English; films with subtitles. LIT 325E is taught in English and cannot count toward the Italian major or minor; LIT 325F is taught in conjunction with ITAL 333 and may count toward the Italian major or minor by arrangement with the professor.

## LIT 413 - (CL,D) Topics in American Minority Literature

3 cr.

This course examines a particular minority group in American society through texts written by and about that group. Representative groups include, for example, Native Americans, African Americans, Asian Americans, Hispanic Americans and women. This course may be repeated for credit when content varies. Taught in English.

## LIT/CINE 225 - (D) Monsters, Aliens and Superheros: The Other in French and Italian Cinema

3 cr.

The course explores how the issues of exceptionality, aberration, and deviation from established social and cultural norms are represented in French and Italian Cinema, from the post-war period to the present time. Sample topics include: immigration, disability, marginality, extraordinary lives, and monstrosity in the literal and figurative sense. Taught in English.

## MAGI 191 - Foundations in STEM I

1.5 cr.

An introductory seminar in the Foundations of STEM fields and methodology. Students will explore the steps of the scientific method and the relationship between science and society within the context of their majors.

## MAGI 192 - Foundations in STEM II

1.5 cr.

(Prerequisite: MAGI 191)
A seminar that continues the introduction in the Foundations of STEM fields and methodology. Students will explore further the steps of the scientific method and the relationship between science and society within the context of their majors.

## MAGI 291 - Methods of Inquiry I

1.5 cr.

(Prerequisite: MAGI 192)
A sophomore seminar that explores the methods of inquiry used by professionals in STEM fields. Students will trace the history of a current issue in science and society as they continue to explore the steps of the scientific method and the relationship between science and society within the context of their majors.

## MAGI 292 - Methods of Inquiry II

1.5 cr.

(Prerequisite: MAGI 291)
A sophomore seminar on the methods of inquiry of STEM fields and methodology. Students will focus on the steps involved in approaching a research topic.

## MAGI 391 - Discovery I

1.5 cr.

(Prerequisite: MAGI 292)
A junior seminar in the exploration of STEM fields and methodology. Students will develop their proposals for their thesis research and present them to their mentors and research committees.

## MAGI 392 - Discovery II

1.5 cr.

(Prerequisites: MAGI 391)
A junior seminar in the exploration of STEM fields and methodology. Each students will develop a plan for carrying out their thesis research and monitor their progress on that plan.

## MAGI 491 - Synthesis

1.5 cr.

(Prerequisite: MAGI 392)
A senior seminar in STEM fields and methodology. Students will focus on developing their time-management skills as they carry out their thesis research.

## MAGI 492 - Exposition

1.5 cr.

(Prerequisite: MAGI 491)
The final seminar for seniors completing their independent research project in STEM, emphasizing the skills needed to complete their analyses and write their theses.

## MATH 005 - Algebra

3 cr.

A study of algebra including factoring, exponents, radicals, graphing, and linear and quadratic equations. Course is recommended for students who need MATH 106 but received a score below 10 on the DAT part of the Math Placement Test. Credits count only as free elective.

## MATH 101 - (Q) Mathematics Discovery

3 cr.

Topics exploring various aspects of mathematical reasoning, modeling, and problem solving are selected to bring the excitement of contemporary mathematical thinking to the non-specialist. Examples of topics covered in the past include fractal geometry, chaos theory, number theory, non-Euclidean geometry and problem solving. Not open to students with credit for or enrolled in any Mathematics course numbered above 205.

## MATH 102 - (Q) Fundamentals of Numerical Mathematics

3 cr.

(Prerequisite: Not open to students with credit for or enrolled in MATH 142, MATH 299 or MATH 346)
A study of the fundamental elementary concepts underlying numbers and number systems and their applications. Topics covered include logic, sets, functions, the natural numbers, integers, rational numbers, real numbers, estimation, number theory, patterns, counting, and probability, in addition to other topics chosen by the instructor.

## MATH 105 - (Q) Fundamentals of Geometric Mathematics

3 cr.

(Prerequisite: Not open to students with credit for or enrolled in MATH 345)
A study of the fundamental concepts underlying geometric mathematics and its applications. Topics include logic; sets; functions and relations; classical geometry; measurement; transformations; and analytic geometry and its relationship to algebra and functions, in addition to other topics chosen by the instructor.

## MATH 106 - (Q) Quantitative Methods I

3 cr.

(Prerequisite: MATH 005 or Math Placement DAT score of 10 or higher or chairperson's permission)

Topics from algebra including exponents, radicals, linear and quadratic equations, graphing, functions (including quadratic, exponential and logarithmic), and linear inequalities. Not open to students with credit for or enrolled in MATH 109.

## MATH 107 - (Q) Quantitative Methods II

3 cr.

(Prerequisite: MATH 106, Math Placement PT score of 12 or higher, or chairperson's permission)
Topics from differential calculus including limits, derivatives, curve sketching, marginal cost functions, and maximum-minimum problems. Integration. Not open to students with credit for or enrolled in MATH 114.

## MATH 108 - Quantitative Methods III

3 cr.

(Prerequisite: MATH 107 or MATH 114)
Topics from integral calculus including the definite and indefinite integral, techniques of integration, and multivariable calculus. Not open to students with credit for or enrolled in MATH 221.

## MATH 109 - (Q) Pre-Calculus Mathematics

4 cr.

(Formerly MATH 103) (Prerequisite: MATH 005 or MATH 106 or Math Placement DAT score of 13 or higher or chairperson's permission)
An intensified course covering the topics of algebra, trigonometry, and analytic geometry. Not open to students with credit for or enrolled in any calculus course.

## MATH 114 - (Q) Calculus I

4 cr.

(Prerequisite: MATH 109 or Math Placement PT score of 14 or higher)
Topics from calculus and analytic geometry including limits, derivatives and their applications, integrals, and the Fundamental Theorem.

## MATH 142 - (Q) Discrete Structures

4 cr.

(Prerequisite: MATH 005 or MATH 102 or MATH 109 or MATH 106 or Math Placement DAT score of 13 or higher)
A study of symbolic logic, sets, combinatorics, mathematical induction, recursion, graph theory, and trees. Intended for Engineering, Computer Science, and Computer Information Systems majors, but open to other qualified students.

## MATH 184 - Special Topics

1-4 cr.

Topics, prerequisites, and amount of credit will be announced prior to preregistration.

## MATH 204 - (Q) Introduction to Statistics

3 cr.

Study of the computational aspects of statistics; hypothesis testing, goodness of fit; nonparametric tests; linear and quadratic regression, correlation and analysis of variance. Not open to students who have credit for or are enrolled in an equivalent statistics course.

## MATH 221 - Calculus II

4 cr.

(Prerequisite: MATH 114)
Topics from calculus and analytic geometry including applications of the definite integral, calculus of transcendental functions, methods of integration, improper integrals, sequences and series.

## MATH 222 - Calculus III

4 cr.

(Prerequisite MATH 221)
Topics from calculus and analytic geometry including parametric equations, vectors, space analytic geometry, partial derivatives and multiple integrals.

## MATH 284 - Special Topics

1-4 cr.

Topics, prerequisites, and amount of credit will be announced prior to preregistration.

## MATH 299 - (EPW) Introduction to Mathematical Proof

4 cr.

(Prerequisite: MATH 221 or permission of the instructor).
A writing-intensive introduction to the construction, analysis, and methods of mathematical proof. Topics include propositional and predicate logic, sets, relations, functions, recursion, mathematical induction, and counting arguments with the emphasis on writing and analyzing mathematical proofs about these topics.

## MATH 310 - Applied Probability and Mathematical Statistics

4 cr.

(Prerequisite: MATH 221)
Basic concepts of probability theory, random variables, distribution functions, multivariable distributions, sampling theory, estimation, confidence intervals, hypothesis testing, linear models and analysis of variance.

## MATH 312 - Probability

3 cr.

(Corequisite: MATH 222)
An introduction to probability theory and random variables. Topics to include: combinatorial and conditional probability, discrete and continuous random variables, distribution functions of one and several random variables, expectation, variance, independence, moment-generating functions, and the central limit theorem.

## MATH 314 - Mathematical Statistics

3 cr.

(Prerequisite: MATH 312)
An introduction to statistics based on the theory of probability. Topics to include: sampling distributions, properties of estimators, confidence intervals and hypothesis tests for one or two populations, regression, analysis of variance, error, power, and maximum likelihood.

## MATH 320 - Chaos and Fractals

3 cr.

(Prerequisite: One math course beyond MATH 221 and one CMPS course or equivalent experience.)
Study of chaotic dynamical systems and fractal geometry. Topics from discrete dynamical systems theory include iteration, orbits, graphical analysis, fixed and periodic points, bifurcations, symbolic dynamics, Sarkovskii's theorem, the Schwarzian derivative, and Newton's method. Topics from fractal geometry include fractal, Hausdorff, and topological dimension, L-systems, Julia and Mandelbrot sets, iterated function systems, the collage theorem, and strange attractors.

## MATH 325 - History and Philosophy of Mathematics

3 cr.

(Prerequisites: MATH 221 and either MATH 142 or a MATH course above 298)
A survey of major developments in mathematics from ancient through modern times. In addition to the mathematics, this course focuses on the context in which these results were discovered as well as the lives of the mathematicians. Topics may include development of numeral systems, Euclidean and non-Euclidean geometry, algebra, calculus, number theory, real analysis, logic and set theory. Offered fall of odd-numbered years only.

## MATH 330 - Actuarial Mathematics

3 cr.

(Prerequisite: MATH 221)
An introduction to the theory and application of financial mathematics. Topics include: theory of interest, annuities, yield rates, amortizations, bonds, yield curves, duration, and immunization.

## MATH 341 - Differential Equations

4 cr.

(Prerequisite: MATH 222)
Treatment of ordinary differential equations with applications. Topics include: first-order equations, first-order systems, linear and non-linear systems, numerical methods, and Laplace transforms. Computer-aided solutions will be used when appropriate.

## MATH 345 - Geometry

3 cr.

(Prerequisite: MATH 299)
Euclidean, non-Euclidean, and projective geometry. Transformations and invariants. Offered in the fall of even-numbered years only.

## MATH 346 - Number Theory

3 cr.

(Prerequisite: MATH 299 or permission of instructor)
Topics include divisibility, the Euclidean algorithm, linear diophantine equations, prime factorization, linear congruences, some special congruences, Wilson's theorem, theorems of Fermat and Euler, Euler phi function and other multiplicative functions, and the Mobius Inversion Formula.

## MATH 351 - Linear Algebra

3 cr.

(Prerequisite: MATH 221)
Vector spaces, matrices, determinants, linear transformations, eigenvalues, eigenvectors, inner products, and orthogonality.

## MATH 360 - Coding Theory

3 cr.

(Prerequisite: MATH 351)
A study of algebraic coding theory. Topics include: linear codes, encoding and decoding, hamming, perfect, BCH cyclic and MDS codes, and applications to information theory.

## MATH 361 - Numerical Analysis

3 cr.

(Prerequisites: MATH 222, MATH 351)
Introductory numerical methods. Topics include: root finding, matrix factorizations, numerical linear algebra, polynomial interpolation, numerical integration, numerical solution of differential equations. Appropriate computation tools will be used.

## MATH 368 - Cryptography

3 cr.

(Prerequisites: MATH 142 or MATH 221or permission of instructor)
Cryptography is a rapidly growing branch of mathematics with numerous applications for the information age. It uses results from several branches of mathematics with many interesting applications of these results. This course combines the theory and implementation of cryptography in order to solve problems with an emphasis on applications.

## MATH 371 - Applied Combinatorics

3 cr.

(Pre-requisites: MATH 222 or permission of the instructor)
This course combines the theory and implementation of combinatorics in order to solve problems with an emphasis on applications. Topics may include generating functions, basic counting methods, graph theory, networks, recursion, sorting theories, and codes.

## MATH 384 - Special Topics

1-4 cr.

Topics, prerequisites, and amount of credit will be announced prior to preregistration.

## MATH 410 - Introduction to Stochastic Processes

3 cr.

(Prerequisites: MATH 310, MATH 351)
An introduction to stochastic processes studying Markov chains, stationary distributions, birth and death processes, pure jump processes, second order continuity, integration and differentiation, and stochastic differential equations.

## MATH 441 - Partial Differential Equations

3 cr.

(Prerequisites: MATH 341 Differential Equations; either MATH 351 Linear Algebra or permission of instructor)

Treatment of partial differential equations (PDEs) with applications, including derivations of classical PDEs from mathematical physics. Topics include: separation of variables, orthogonal expansions and Fourier series, and Strum-Liouville theory. Additional topics may include: PDEs in various coordinate systems, PDEs on unbounded domains, and Fourier transforms.

## MATH 446 - Real Analysis I

3 cr.

(Prerequisites: MATH 222, MATH 299)
Topics include: the algebra and topology of the real numbers, functions, sequences of numbers, limits, continuity, absolute and uniform continuity, and differentiation.

## MATH 447 - Real Analysis II

3 cr.

(Prerequisite: MATH 446)
Selections from: integration theory, infinite series, sequences and infinite series of functions, and related topics.

## MATH 448 - Modern Algebra I

3 cr.

(Prerequisites: MATH 299, MATH 351)
Fundamental properties of groups, rings, polynomials, and homomorphisms.

## MATH 449 - Modern Algebra II

3 cr.

(Prerequisite: MATH 448)
Further study of algebraic structures.

## MATH 460 - Topology

3 cr.

(Prerequisite: MATH 299)
Topological spaces: connectedness, compactness, separation axioms, and metric spaces.

## MATH 461 - Complex Variables

3 cr.

(Prerequisite: MATH 222)
The theory of complex variables: the calculus of functions of complex variables, transformations, conformal mappings, residues and poles.

## MATH 462 - Vector Calculus

3 cr.

(Prerequisites: MATH 222, MATH 351)
The calculus of scalar and vector fields and of functions defined on paths or surfaces. Implicit Function, Green's, Strokes, and Gauss' Theorems. Applications.

## MATH 463 - (EPW) Topics in Biomathematics

3 cr.

(Prerequisites: MATH 341, MATH 351)
A study of discrete and continuous mathematical models in biology. Topics include: population dynamics of single species and interacting species, infectious diseases, population genetics, and cell populations with tumor modeling.

## MATH 479 - The Art of Problem Solving

4 cr.

(Prerequisites: MATH 221 and MATH 142 or MATH 299, or else permission of the instructor)
An introduction to the creative, inspirational, and playful side of mathematics exemplified in high quality middle school, high school, and undergraduate mathematics competitions and mathematical research. Emphasis is placed on building a repertoire of mathematical strategies and tactics, then applying these methods in unfamiliar situations.

## MATH 484 - Special Topics

1-4 cr.

Topics, prerequisites, and amount of credit will be announced prior to preregistration.

## MATH 493 - Undergraduate Mathematics Research

3 cr.

(Prerequisite: MATH 299)
An introduction to mathematical research. Students will be required to investigate, present and write up the result of an undergraduate-level mathematical research project. Students will gain experience in researching the mathematical literature, investigating a mathematical problem, and learning how to write a mathematical paper. Students will be required to present their results in both oral and written form.

## MATH 494 - Undergraduate Mathematics Research

3 cr.

(Prerequisite: MATH 299)
An introduction to mathematical research. Students will be required to investigate, present and write up the result of an undergraduate-level mathematical research project. Students will gain experience in researching the mathematical literature, investigating a mathematical problem, and learning how to write a mathematical paper. Students will be required to present their results in both oral and written form.

## ME 240 - Introduction to Mechanical Engineering

3 cr.

(Prerequisites: ENGR 150, ENGR 253L , ENGR 254L )
ME covers the creation, design, and analysis of many types of systems, technologies, and materials. Fundamentals of ME course is a brief introduction to Materials Science as well as selected concept areas of Physics applicable in ME. Students will also receive experience in applying mechanical engineering principles in several fun experiments/problem sets throughout the course.

## ME 260 - Strength of Materials

3 cr.

(Prerequisite: ENGR 250)

Concept of stress and strain, generalized Hooke's Law, axial load, torsion, pure bending, transverse loading, transformation of stress and strain components in 2D, design of beams and shafts for strength, deflection of beams, work and energy, columns.

## ME 270 - Materials Engineering

3 cr.

(Prerequisites: PHYS 140/PHYS 140L, MATH 221)
This class is an introduction to materials sciences, dealing with properties of solids, the fundamentals of atomic structure, interatomic bonding and crystal lattice structures, diffusion mechanisms and phase diagrams for major classes of solid materials. Special attention is given to the economic environment and current social issues such as recycling issues in materials sciences and engineering.

## ME 353 - Fluid Mechanics

3 cr.

(Prerequisites: PHYS 140/PHYS 140L, MATH 222, MATH 341)

This course introduces the fundamentals and techniques of fluid mechanics with the aim of describing and controlling engineering flows. Topics to be covered are fluid properties, fluid statics, fluids in motion, momentum and energy equations, dimensional analysis, boundary layers, flow in conduits, drag and lift.

## ME 360L - Measurement & Instrumentation with Lab

3 cr.

(Prerequisites: EE 241/EE 241L)
Applications of laboratory measurement, experimental design, computerized data acquisition, spectral data analysis, and probabilistic and statistical analysis of data. Use of transducers for measurement and analysis of solid, fluid, and dynamic quantities, including force, strain, temperature, humidity, flow, velocity, acceleration, and vibration. Use of test and measurement equipment including multimeters, power supplies, function generators, oscilloscopes, and spectrum analyzers.

## ME 370 - Manufacturing Processes

3 cr.

(Prerequisites: ME 240, ME 260 and Co-requisite: ME 370L)
Fundamentals of manufacturing processes. Topics include metal forming, forging, cutting, welding, joining, and casting; selection of metals, plastics and other materials relative to the design and choice of manufacturing processes; the interrelationships between the properties of the material, the manufacturing process and the design of components.

## ME 370L - Manufacturing Processes Lab

1 cr.

(Prerequisites: ME 240, ME 260, ME 370)
Provides students with hands-on-experience for performing and analyzing a broad spectrum of manufacturing processes including metal casting, injection molding, powder metallurgy, metal forming, metal removal, joining, inspection and measurement.

## ME 430 - Engineering Economics

3 cr.

(Prerequisites: ECO 153, ECO 154, MATH 221, EE 250/EE250L)

The effects that resource allocation can have on engineering decision making. Topics include time value of money, analysis of alternatives using rates of return, depreciation, taxes, inflation, etc. Computer simulations are used throughout to study engineering designs and the resulting economic impact.

## ME 440 - Heat Transfer

3 cr.

(Prerequisites: MATH 341, ME 353)
Introduction to the fundamental modes of heat transfer (conduction, convection, and radiation). A physical analysis of the convection process and heat transfer in boundary layer flows along with modes of heat transfer in single and multiple dimensions will be applied to heat exchangers and evaporators.

## ME 460 - Senior Design I

3 cr.

(Prerequisites: EE 450 and EE 450L)
This is the first half of a one-year team project carried out under faculty supervision. Students will identify, design, construct and test a system to solve a mechanical engineering problem.

## ME 461 - Senior Design II

3 cr.

(Prerequisites: EE 450, ME 460)
This is the second half of a one-year project carried out under faculty supervision. Students will identify, design, construct and test a system to solve a mechanical engineering problem.

## ME 470 - Vibration Engineering

3 cr.

(Prerequisites: ENGR 350, PHYS 140)
An introduction to the theory of mechanical vibrations including topics of harmonic motion, resonance, transient and random excitation, application of Fourier/Laplace analysis and convolution methods. Topics include vibrational control, measurement and applications, numerical integration methods in vibrational analysis. Multi-degree of freedom discrete systems including principal mode, principal coordinates and Rayleigh's principle. Applications include the control of undesirable vibrations in structures, machines, and vehicles.

## MGT 251 - Legal Environment of Business

3 cr.

The nature, sources, formation, and applications of law. Judicial function, court system, litigation and other methods of resolving disputes. Legislation-law from judicial decisions, law by administrative agencies, regulation of business activity, antitrust law, consumer protection, environment, and pollution control. Tort, criminal and insurance law, property rights for both personal and real property. Business organization, principle of agency, partnership and corporation.

## MGT 251K - Legal Environment of Business

3 cr.

An honor course designed around the nature, sources, formation, and applications of law. Legislation-law from judicial decisions, law by administrative agencies, regulation of business activity, antitrust law, consumer protection, environment, and pollution control. Tort, criminal and insurance law, property rights for both personal and real property. Business organization, principle of agency, partnership and corporation.

## MGT 351 - Principles of Management and Entrepreneurship I

3 cr.

(Prerequisite: junior standing)
Survey course examines key aspects of organizations and their management – dynamic environments, organization design and structure, roles/functions of managers, managing technology and change, global management, and alternative types of organizations. This course examines the expanding role of the manager from planning, organizing, controlling and directing, to the knowledge and skills involved in managing and working with a diverse workforce and entrepreneurship primarily from an organizational perspective (Credit may not be earned for MGT 351 and EM 351.)

## MGT 351K - Principles of Management I

3 cr.

(Prerequisite: junior standing)
Survey course examines key aspects of organizations and their management – dynamic environments, organization design and structure, roles/functions of managers, managing technology and change, global management, and alternative types of organizations. This course examines the expanding role of the manager from planning, organizing, controlling and directing, to the knowledge and skills involved in managing and working with a diverse workforce. (Credit may not be earned for MGT 351K and EM 351.)

## MGT 352 - Principles of Management and Entrepreneurship II

3 cr.

(Prerequisite: MGT 351)
Survey course examines the individual in the work setting, working with a variety of people inside and outside the organization. This course deals with such issues as motivation, leadership and communication diversity at the work place, and with individual effectiveness, interpersonal relations, group skills, and entrepreneurship primarily from Individual and team perspectives.

## MGT 352K - Principles of Management II

3 cr.

(Prerequisite: MGT 351K)
Honors-level survey course that examines key aspects of organizations and their management – dynamic environments, organization design and structure, roles/functions of managers, managing technology and change, global management, and alternative types of organizations. This course examines the expanding role of the manager from planning, organizing, controlling and directing, to the knowledge and skills involved in managing and working with a diverse workforce.

## MGT 361 - Human Resources Management

3 cr.

(Prerequisite: MGT 351)
Course explains the functions of a human resources division or department – including job descriptions, labor demographics, recruitment and hiring, turnover and mobility, interviewing, aptitude and other employee testing, performance evaluation, disciplinary procedures, employee health and safety, wage and hour administration, government regulations; and the handling of absenteeism, alcoholism, and drug addiction.

## MGT 362 - (EPW) Employee-Management Relations

3 cr.

(Prerequisite: MGT 351)
This examines employee-management practices in contemporary society, employee participation in unions, and their spill-over effect on nonunion settings. Course topics include unions, the collective-bargaining process, wages and benefits, seniority,

grievance procedures, and arbitration. Discrimination in employment and equal-employment opportunity will be discussed, as well as future issues in union and nonunion settings and international employee-management relations.

## MGT 440 - Conflict and Negotiation Management

3 cr.

(Prerequisite: MGT 351 and MGT 352)
Focuses on negotiation and conflict management in business and other organizational settings through understanding and interactive application of negotiation and conflict strategies and skills. Topics include collaborative and competitive approaches, individual and multiparty/team negotiations, ethics, communication, perception and judgment, and culture.

## MGT 455 - Business Policy and Strategy

3 cr.

(Prerequisites: senior standing, FIN 251, OIM 352, MGT 352, MKT 351)
This is the capstone course for all Business majors. Concepts and skills developed in the prerequisite courses are integrated and applied to the overall management of an organization. Topics will include setting objectives, designing strategic plans, allocating resources, organizational structuring and controlling performance. (Credit may not be earned for MGT 455 and EM 455.)

## MGT 455K - Business Policy and Strategy

3 cr.

(Prerequisite: senior standing, FIN 251K, OIM 352K, MGT 352K, MKT 351K)
This is the honor capstone course for all Business majors. Concepts and skills developed in the prerequisite courses are integrated and applied to the overall management of an organization. Topics will include setting objectives, designing strategic plans, allocating resources, organizational structuring and controlling performance.

## MGT 460 - Organization Theory

3 cr.

(Prerequisite: MGT 351)
Study of the forces both within and outside the organization that determine the structure and processes of an organization. Topics to be covered will include technology and size- influences, conflict, boundary roles, matrix structure, political factors, and sociotechnical systems.

## MGT 461 - Managing Through Systems and Quality

3 cr.

(Perquisite: MGT 351)
Systems theory provides a powerful way to understand work organizations: as interacting, inter-dependent systems. Managing effectively through systems involves working with vision, with empowered, growing people with a customer orientation, with good measures and analysis, and with a continuous improvement culture. This course will focus on these quality management approaches that form the underpinning of tomorrow's management practices.

## MGT 462 - Project Management in Organizations

3 cr.

(Prerequisite: MGT 351 or EM 351)
This course will examine advanced project-management concepts from all phases of the project lifecycle (from requirements-specification through post-project assessment). Special emphasis will be placed on understanding projects within the context of complex organizational settings by utilizing an open-systems perspective. Linkages with more permanent administration structures within the organization will be reviewed. (Credit cannot be earned for MGT 462 and OIM 462.)

## MGT 471 - Group Dynamics

3 cr.

(Prerequisite: MGT 351 or permission of instructor)
Survey of constructs, research and applications of small group phenomena in an organizational contest. Examines theories, research measurements and observational methods used in studying groups. Students will be able to explore their own behavior in groups by participating in various groups and/or by observing others in group experiences. The course will prepare students to be effective in groups.

## MGT 473 - Organizational Social Responsibility

3 cr.

(Prerequisite: MGT 351 or permission of the instructor)
This course introduces students to basic concepts underlying the social responsibility aspect of the management process. The role of pluralism is examined in the societal system to provide an understanding of the evolving relationship between organizations and society as a whole. The managerial approach is explored in the light of the increasing importance of societal impact on the organization.

## MGT 474 - (D,EPW) Managing a Multicultural Workforce

3 cr.

This course addresses the skills and knowledge managers must develop to deal with an increasingly culturally diverse workforce. Specific topics to be covered include diversity in ethnicity, nationality, religion, culture, gender, age, sexual orientation and disability. The course will help students interact and work with people different from themselves and to understand their own cultural values, biases and behaviors.

## MGT 476 - Sport Facilities Management

3 cr.

(Prerequisite: MGT 351)
This course will prepare students to plan and execute management strategies for simple to spectacular sport facilities including day-to-day operations of these structures and the construction of new ones.

## MGT 495 - European Business Experience

3 cr.

(Prerequisites: MGT 351, MKT 351, ECO/IB 351)
Students will have an opportunity to participate in lecture-discussion sessions with top-level executives from various multinational corporations, local business firms, and government agencies in a number of different countries in Europe. Participants will gain a basic understanding of the issues prominent in international business today. Course involves travel to Europe. (Credit cannot be earned for MGT 495 and IB 495 and MKT 495.)

## MGT/IB 475 - International Management

3 cr.

(Prerequisites: ECO/IB 351, MGT 351)
Focuses on functional strategies of multinational corporations (MNCs), structure and control-systems of MNCs, and comparative management. Specific MNC strategies to be covered include entry, sourcing, and marketing, finance, human resources and public affairs. Study of structure and control systems includes corporate structure, headquarters-subsidiary relationships. Study of comparative management systems focuses on nature of management systems and practices in different cultures.

## MGT/IB 475 - International Management

3 cr.

(Prerequisites: ECO/IB 351, MGT 351)
Focuses on functional strategies of multinational corporations (MNCs), structure and control systems of MNCs, and comparative management. Specific MNC strategies to be covered include entry, sourcing, marketing, finance, human resources and public affairs. Study of structure and control systems includes corporate structure and headquarters-subsidiary relationships. Study of comparative management systems focuses on nature of management systems and practices in different cultures.

## MKT 351 - Introduction to Marketing

3 cr.

(Prerequisites: junior standing, ECO 153-ECO 154 or ECO 101)
This course introduces the student to the field of marketing. An overview of the principles on which the discipline is founded. The marketing concept is presented as the framework under which the decisions related to marketing-mix variables (product, place, price and promotion) are made by organizations.

## MKT 351K - Introduction to Marketing

3 cr.

This honor course introduces the student to the field of marketing. An overview of the principles on which the discipline is founded. The marketing concept is presented as the framework under which the decisions related to marketing-mix variables (product, place, price and promotion) are made by organizations.

## MKT 361 - Marketing Research

3 cr.

(Prerequisite: MKT 351)
Study of the role of marketing information as the basis for decision-making. Topics include research design, methods of gathering data, questionnaire structure, interviewing methods and preparing the final report.

## MKT 362 - Consumer Behavior

3 cr.

(Prerequisite: MKT 351)
Study of theories of consumer behavior. The buyer is analyzed at the individual level in terms of motivation, attitudes, etc. and at the social level in terms of influence on buying behavior from the socio-economic environment.

## MKT 370 - Interactive Marketing

3 cr.

(Prerequisite: MKT 351)
This course examines the integration of evolving interactive technologies in the design and implementation of marketing programs. The use of information technology infrastructure to support the execution of conception, pricing, promotion and distribution of ideas, goods and services has the potential of making the marketing process more efficient and productive.

## MKT 470 - Marketing Communications

3 cr.

(Prerequisite: MKT 351; senior standing)

Personal and mass communication approaches generated by manufacturers and intermediates or institutions toward target markets. The design of advertising campaigns to shift consumer attitudes, to secure resellers' support and to inform, persuade, and move them to action. Development of copy selection and media and measurement of promotion effectiveness including evaluation of sales force.

## MKT 471 - Sales Force Management

3 cr.

(Prerequisites: MGT 352, MKT 351; senior standing)
This course develops the concepts and techniques needed to identify and analyze the various decision areas faced by a sales-force manager. Topics include recruiting, selecting and training the sales force; forecasting, budgeting and sales quotas; assigning, motivating and compensating the sales force.

## MKT 472 - Retailing Management

3 cr.

(Prerequisites: MGT 352, FIN 251, OIM 351; senior standing)
This course focuses on the decision areas facing retail managers, including retailing, structure, merchandising, locations, store layout, promotion, pricing and personnel.

## MKT 473 - Sports Marketing

3 cr.

(Prerequisite: MKT 351)
This course will prepare students to plan and execute marketing strategies for Sports Organizations and organizations that market themselves through sports. Students will examine the explosion of opportunities and challenges in this unique business thanks to advances in telecommunications and performance technologies as well as the shrinking global marketplace.

## MKT 474 - Personal Selling

3 cr.

(Prerequisites: MKT 351, MKT 361, MKT 362)
This course focuses on the direct selling process: how it fits into the marketing function, the ability to communicate a product's features, advantages and benefits, and the principles of effective selling. Students practice making oral and written sales presentations. Students also learn what a career in sales entails.

## MKT 476 - Marketing Strategy

3 cr.

(Prerequisite: MKT 351; senior standing)
The theme of this course is building effective marketing strategies through integrated decision-making. Emphasis is on different decision models within functional areas such as demand analysis, consumer research, product and promotion management, etc.

## MKT 477 - Sustainable Marketing

3 cr.

(Prerequisite: MKT 351)
Sustainable marketing is a new approach which expands the boundaries of traditional marketing. In this course, we will focus on how companies are learning to innovate, develop, produce, promote, distribute and take back products and services in new ways that reduce waste and pollution in order to satisfy all stakeholders.

## MKT 495 - European Business Experience

3 cr.

(Prerequisites: MGT 351, MKT 351, ECO/IB 351)
Students will have an opportunity to participate in lecture-discussion sessions with top-level executives from various multinational corporations, local business firms, and government agencies in a number of different countries in Europe. Participants will gain a basic understanding of the issues prominent in international business today. Course involves travel to Europe. (Credit cannot be earned for MKT 495 and IB 495 and MGT 495.)

## MKT/IB 475 - (D) International Marketing

3 cr.

(Prerequisites: MKT 351, ECO/IB 351)
Analysis of the marketing strategies of multinational corporations with emphasis on the internal environment of country markets. Discussions will include comparisons of different regional markets along socioeconomic, political and cultural lines. Different types of international market barricades and the corresponding market-entry strategies will be analyzed. Additional readings from international publications will be required.

## MS 101 - Concepts of Leadership I

1 cr.

Instruction is designed to provide basic understanding of military knowledge while concentrating on leadership skills and civic responsibilities important to all citizens. Students may elect to participate in activities that produce expertise in orienteering, first aid, swimming and small unit tactics.

## MS 102 - Concepts of Leadership II

1 cr.

Instruction is designed to provide basic understanding of military knowledge while concentrating on leadership skills and civic responsibilities important to all citizens. Students may elect to participate in activities that produce expertise in orienteering, first aid, swimming and small unit tactics.

## MS 111 - Leadership Applications Laboratory

0 cr.

Freshmen and sophomores are required to participate in this elective. Hands-on instruction is designed to reinforce classroom training on leadership.

## MS 112 - Leadership Applications Laboratory

0 cr.

Freshmen and sophomores are required to participate in this elective. Hands-on instruction is designed to reinforce classroom training on leadership.

## MS 131 - Advanced Leadership Applications Laboratory

0 cr.

Advanced-course junior/senior students are required to attend. Students plan, resource and conduct training under the supervision of Army ROTC faculty and staff members. Emphasis is on reinforcement of classroom leadership training and military instruction to prepare juniors for situations they will experience at the Cadet Leader Course.

## MS 132 - Advanced Leadership Applications Laboratory

0 cr.

Advanced-course junior/senior students are required to attend. Students plan, resource and conduct training under the supervision of Army ROTC faculty and staff members. Emphasis is on reinforcement of classroom leadership training and military instruction to prepare juniors for situations they will experience at the advanced summer camp.

## MS 138 - Physical Fitness Training

1 cr.

Training Stretching, strengthening exercises, and an aerobic workout, supervised by Army ROTC faculty. This course is open to all students.

## MS 201 - Dynamics of Leadership I

2 cr.

Instruction is designed to familiarize the student with basic military operations and the principles of leadership. Students experience hands-on training with navigation and topographic equipment, first aid and small unit tactics.

## MS 202 - Dynamics of Leadership II

2 cr.

Instruction is designed to familiarize the student with basic military operations and the principles of leadership. Students experience hands-on training with navigation and topographic equipment, first aid and small unit tactics.

## MS 301 - Military Leadership I

1.5 cr.

(Prerequisite: MS 201-MS 202 or equivalent)
This course continues to develop each student's leadership qualities and teaches students how to plan, resource and execute effective training in preparation for attendance at the Leadership Development Assessment Course prior to their senior year.

## MS 302 - Military Leadership II

1.5 cr.

(Prerequisite: MS 201-MS 202 or equivalent)
This course continues to develop each student’s leadership qualities and teaches students how to plan, resource and execute effective training in preparation for attendance at the Leadership Development Assessment Course prior to their senior year.

## MS 401 - Advanced Military Leadership

1.5 cr.

(Prerequisite: MS 301 - MS 302 or Permission of the Department Chair)
Taught by the Professor of Military Science, this course continues to develop the student's leadership skills. Emphasis is on operations of a military staff, briefing techniques, effective writing, Army training systems, and the logistical and administrative support of military operations.

## MS 402 - Advanced Military Leadership

1.5 cr.

(Prerequisite: MS 301 - MS 302 or Permission of the Department Chair)
Taught by the Professor of Military Science, this course continues to develop the student's leadership skills. Emphasis is on operations of a military staff, briefing techniques, effective writing, Army training systems, and the logistical and administrative support of military operations.

## MS 480 - Internship in Military Science: ROTC Advanced Camp

2 cr.

(Prerequisites: MS 301, MS 302 and contracted status as a cadet)
This internship is a paid four-week experience of training and evaluation conducted with ROTC cadets from all across the country. It gives the student the opportunity to practice the leadership theory acquired in the classroom, as well as participate in a wide range of military skills and tactical training.

## MS 481 - Internship in Military Science: Cadet Professional Development Training

1 cr.

(Prerequisites: MS 301, MS 302, and contracted status as a cadet or permission of the Department Chair)
This internship is a paid three to four week experience of leadership training and mentoring. The intern leads and supervises Soldiers in the planning and execution of the unit's scheduled training as an understudy to a military officer in the U.S. Army.

## MUS 111 - (CA) Music History I

3 cr.

The history and literature of Western classical music from the medieval period to the 18th century, including Gregorian chant, the growth of polyphony, the rise of instrumental music, and the birth and growth of opera.

## MUS 112 - (CA) Music History II

3 cr.

The history and literature of Western classical music from the 18th century to the present, including the increasing importance of instrumental music and opera, the development of atonality and serial music, and the recent avant-garde. MUS 111 is not a prerequisite.

## MUS 211 - Keyboard Music

3 cr.

Music written for the piano, organ, harpsichord and clavichord from the Renaissance to the 20th century. The course focuses on the development of keyboard instruments and the forms and composers that dominate the literature.

## MUS 213 - Symphony

3 cr.

Development of the symphony as an independent genre, from its origins in the mid-18th century to the present day. Works by Haydn, Mozart, Beethoven, Brahms, Tchaikovsky, Mahler, Shostakovich and Stravinsky will be among those considered.

## MUS 217 - Opera

3 cr.

The history of opera from its beginnings at the turn of the 17th century to the present with an emphasis on the 19th and 20th centuries. Representative operas by Mozart, Verdi, Wagner and Puccini, among others, will be examined.

## MUS 218 - American Musical Theatre

3 cr.

The development of musical theatre in America from the 19th century to the present, emphasizing works composed since the 1940s. Musicals by Jerome Kern, Rodgers and Hammerstein, Lerner and Loewe, Leonard Bernstein, and Stephen Sondheim will be considered.

## MUS 219 - History of Jazz

3 cr.

A detailed examination of a "truly American musical form." Included will be discussions of major stylistic periods, compositions, and performers. Listening examples, as well as live performances, will contribute to an understanding of jazz from its origins to the present day.

## MUS 220 - (CA) Music in the Renaissance

3 cr.

A study of the style characteristics of Renaissance music, and of musicians of Western Europe. Emphasis is given to how Renaissance ideals are reflected in the musical works, and the place of music and musicians in Renaissance society.

## MUS 222 - Bach

3 cr.

(Formerly MUS 323)

The music of Johann Sebastian Bach in the context of the musical forms, styles, and genres current in the first half of the 18th century. A survey of Bach's life and works is followed by detailed study of selected vocal and instrumental compositions.

## MUS 223 - Mozart

3 cr.

(Formerly MUS 324)
An examination of Mozart's major works in the genres of symphony, concerto, chamber music, church music, and opera, together with a brief biographical survey. The influence of late 18th-century culture and musical conventions on Mozart's work is considered.

## MUS 225 - Beethoven

3 cr.

(Formerly MUS 325)
Study of a composer whose fiery personality drove him to express through music universal concepts in an age of revolution, e.g., freedom and the dignity of the person. Course traces the evolution of Beethoven's major works – sonatas and concertos, symphonies and string quartets, as well as *Fidelio* and the *Missa Solemnis* – and the effect of his deafness on his view of life and on his later works.

## MUS 226 - Romantic Music of the Nineteenth Century

3 cr.

A study of the major musical developments in the 19th century, the Romantic Period: the rise of piano literature, the art song, chamber and program music, and opera. Attention to nationalism.

## MUS 228 - Music of the Twentieth Century

3 cr.

(MUS 112 recommended as prerequisite)
A study of the history and literature of Western classical music in the 20th century. The various "isms" of the period, including impressionism, expressionism, neo-classicism, serialism, and minimalism, will be examined.

## MUS 233 - Music in America

3 cr.

An overview of music in the United States from colonial times to the present, with an emphasis on the 20th century. Classical, popular, and traditional musical styles are considered, including the symphony, the opera, the Broadway show, jazz, rock, hymnody and folk music.

## MUS 235 - Music Theory I

3 cr.

The fundamental materials of tonal music: notes and rests, rhythm and meter, scales and modes, intervals, triads and seventh chords, melodic and harmonic organization, and an introduction to voice leading and part writing. Some knowledge of music notation helpful.

## MUS 236 - Music Theory II

3 cr.

(Prerequisite: MUS 235)
Extension of the tonal vocabulary to include chromatic harmony, modulatory techniques, and the use of extended chords, as well as an overview of selected post-tonal procedures.

## MUS 280 - Liturgical Music

3 cr.

The role of music in the Roman Catholic Church. Emphasis on the practical rather than the historical. Recommended for any lay person or member of the clergy involved in developing church liturgy. No musical background required.

## MUS 284 - Special Topics

3 cr.

Selected topics in music history will vary from year to year in accord with student/faculty interest.

## MUS 335 - Introduction to Composition

3 cr.

(Prerequisites: MUS 235, MUS 236)

Guided individual projects in original composition, together with the analysis of selected works from the classical repertory.

## NEUR 110 - Neuroscience Lab Rotations

0.5 cr.

Through directed readings and laboratory visits, this course will expose students to neuroscience-related research currently under way at The University of Scranton. Various faculty members will demonstrate research activities in their labs while assigning readings and discussing current/future research plans. Graded pass/fail.

## NEUR 111 - Neuroscience Research Literature

1 cr.

Guided by program faculty, students will read and discuss current ground-breaking research in the field. Graded pass/fail.

## NEUR 231 - (E) Behavioral Neuroscience

3-4.5 cr.

(Prerequisite: PSYC 110 or BIOL 141-BIOL 142)
Introduction to the field of neuroscience, examining the cellular bases of behavior, effects of drugs and behavior, brain/body correlates of motivation and emotion, and neural changes accompanying pathology. Three hours lecture and optional 1.5-credit laboratory. Lab fee; Lab offered fall only. (Credit cannot be earned for PSYC 231 and NEUR 231.)

## NEUR 330 - (EPW) Neuroscience Research Methods

4 cr.

(Prerequisite: BIOL 141 and BIOL 142, PSYC 210 or equivalent, PSYC 231)
Hands on experience using techniques specific to neuroscience to understand neurobiological problems. Integrated lecture and laboratory class outlining the theories and application of neuroscience. Topics vary but may include neuropharmacology, immunohistochemistry, neurostatisitics, neurophysiology and computer-aided neuroreconstructions.

## NEUR 339 - Psychopharmacology

3 cr.

(Formerly PSYC 384) (Prerequisites: PSYC 110; grade of C or higher in NEUR 231/PSYC 231)
This course surveys the field of psychopharmacology with particular attention being paid to functional neuoranatomy, the important role of behavioral science, and the neuropharmacology of normal/abnormal behaviors. Numerous research strategies are examined, including dose response functions, therapeutic indices, routes of administration, and pharmacological/behavioral models of clinical conditions. (Credits cannot be earned for PSYC 339 and NEUR 339.)

## NEUR 348 - Functional Neuroanatomy

3 cr.

(Prerequisite: For Neuroscience majors, NEUR 231/PSYC 231)
Study of the organization and function of the neuron, neural circuits, and the major sensory and motor components of the central nervous system; bioelectric phenomena, synaptic transmission; the neural basis for higher functions such as cognition, memory, and learning. Three hours lecture. (Credit cannot be earned for BIOL 348 and NEUR 348.)

## NEUR 350 - Cognitive Neuroscience

3 cr.

(Prerequisites: Grade of C or higher in PSYC 210; PSYC 231/NEUR 231, or PSYC 234)
This course explores the neural underpinnings of human cognition by introducing research on the relationship between mind and brain. The course introduces and expands on neuroanatomy, research methods used to make inferences about brain bases of cognition (e.g., imaging, electronencephalography, lesion studies), and computational approaches to cognitive neuroscience. Discussions and activities focus on the brain bases of cognitive operations in perception, attention, memory, language, executive control, social cognition, reasoning, and decision making.

(Credits cannot be earned for NEUR 350 and PSYC 350.)

## NEUR 357 - Developmental Neuroscience

4 cr.

(Prerequisites: One of the following: NEUR 330, BIOL 241L, BIOL 245L, BIOL 350L, BIOL 351L, BIOL 361L)
Study of the embryonic and regenerative development of the nervous system in metazoans. Topics include brain development, neuron growth and regeneration, nervous system repair, and emergence of behavior. Integrated laboratory exercises focus on embryonic nervous systems, nerve cell growth *in vitro,* and independently designed experiments.

Course offered alternate years. Credits cannot be earned for BIOL 357 and NEURO 357.

## NEUR 358 - Cellular and Molecular Neurobiology

3 cr.

(Prerequisites: BIOL 141-BIOL 142)
Introduces Biology and Neuroscience majors to the cellular and molecular biology of the vertebrate nervous system. Includes ion channel structure and function, synthesis, packaging and release of neurotransmitters, receptor and transduction mechanisms, intracellular signaling, cell-to-cell communication, glial cell function, and neural growth and development. Three hours lecture. (Credit cannot be earned for NEUR 358 and BIOL 358.)

## NEUR 368 - Neuroethology

4 cr.

(Prerequisite: 200-level or higher Biology course)
Study of the neuronal mechanisms of behavior in an organism's natural environment. Topics include evolution of neuronal control, neuronal processing of sensory information, sensorimotor integrations, spatial-orientations, neuromodulations, neuronal underpinnings of bird songs, neuroethology of navigation and learning and memory. (Credits for both NEUR 368 and BIOL 368 may not be earned.)

## NEUR 384 - Special Topics in Neuroscience

3-6 cr.

(Formerly NEUR 170) (Prerequisites: BIOL 141-BIOL 142, NEUR 231/PSYC 231)
Course topics are developed by individual faculty to provide in depth coverage of specific areas in neuroscience. Some courses have required or elective laboratory components. Course titles and descriptions will be provided in advance of registration.

## NEUR 444 - Sensory Biology

3 cr.

(Prerequisites: BIOL 245 and completion of or concurrent enrollment in PHYS 121/PHYS 121L/PHYS 141/PHYS 141L)
The course applies multidisciplinary approaches to the study of senses: physics of stimuli, anatomy of receptor organs, neurophysiology of receptor cells, anatomy and central processing, animal behavior and artificial sensor design. The course focuses on terrestrial vertebrates with occasional discussions on aquatic sensory systems. Three hours lecture. (Credit cannot be earned for NEUR 444 and BIOL 444.)

## NEUR 490 - Neuroscience: Literature and Society I

1.5 cr.

(Prerequisite: Senior Status Neuroscience Major)
This course overviews the history of neuroscience from fossil records to the present time. Students will learn, or be reintroduced, to the major contributors to the field with a particular emphasis on Nobel Prize winners. Students will explore the subareas of neuroscience that have the greatest relevance to our society in the present and foreseeable future. The latter topics will serve as the foundation of NEUR 491. (Offered in Fall only)

## NEUR 491 - Neuroscience: Literature and Society II

1.5 cr.

(Grade of C, or better in NEUR 490)
This course will examine a number of ways in which neuroscience informs and enhances modern society. Students will read summaries (or view video materials) relating to research areas that have relevance to present and future society. Students will read professionally-written articles and similar video materials intended to educate interested lay readers/viewers. Throughout the course, students will make brief written and visual presentations designed to communicate neuroscience topics to the general public relating to the fields of: 1) medicine, 2) law, and 3) consciousness, free will, and artificial intelligence.

## NEUR 493 - Undergraduate Research in Neuroscience

1.5-3 cr.

(Formerly NEUR 160-161) (Prerequisites: BIOL 141-BIOL 142, NEUR 231, NEUR 330, minimum of one semester of successful completion of Faculty Student Research Program with the research instructor, and permission of instructor)
Individual study and research on a specific topic relevant to neuroscience under the supervision of a faculty member. It is strongly recommended that this research be initiated during the junior year, and it is expected that the research will extend over a two-semester period. (Offered in the Fall Semester)

## NEUR 494 - Undergraduate Research in Neuroscience

1.5-3 cr.

(Formerly NEUR 160-161) (Prerequisites: BIOL 141-BIOL 142, NEUR 231, NEUR 330, minimum of one semester of successful completion of Faculty Student Research Program with the research instructor, and permission of Instructor.)
Individual study and research on a specific topic relevant to neuroscience under the supervision of a faculty member. It is strongly recommended that this research be initiated during the junior year, and it is expected that the research will extend over a two-semester period. (Offered in Spring Semester)

## NSCI 102 - Science and Society

3 cr.

This course attempts to show how the sciences, particularly the behavioral sciences, impact both positively and negatively on society. Issues dealt with include the nature of science, similarities and differences between the scientific disciplines, the impact of science on the concept of free will, and the philosophical and moral implications of psychological testing, socio-biology, and Skinnerian radical behaviorism.

## NSCI 103 - (E) The Ascent of Man

3 cr.

Science and technology from the ancient Greeks to the present will be discussed from the personal viewpoint of the scientists and inventors. Lectures will be supplemented by films, demonstrations, and field trips.Three hours lecture.

## NSCI 105 - (E,EPW) Science in the Cinema

3 cr.

Many modern movies use science and technology as a backdrop. Consider *Back to the Future, Star Wars, Jurassic Park, Outbreak, The Core, The Day After Tomorrow* and *Flubber*. The media often forms the popular understanding of science and technology. Tools to differentiate between science fact and science fiction are provided.

## NSCI 108 - (E) Science in Our Time

3 cr.

This course presents the latest developments in science and technology and explores the ideas and techniques underlying these developments. It investigates both the implication these developments have on society and public policy as well as the effect politics, social institutions and mores have on scientific and technological advancement.

## NSCI 201 - (E) Science and the Human Environment

3 cr.

A brief study of the effects of technological, scientific and industrial progress on the air, land, and water resources of the human environment. Problems in each of the resource areas will be discussed in detail.

## NSCI 208H - (E) Science of the Day

3 cr.

An in-depth review and analysis of current developments in science and technology. Topics will be selected from various current periodical and media sources. The scientific, social and political context of each will be discussed.

## NURS 100 - Family Health

3 cr.

(For non-Nursing majors; not a Natural Science course)
Concepts and principles related to the promotion and maintenance of optimal family health. Considers factors pertinent to health needs and health practices throughout the life cycle.

## NURS 111 - (D) Women's Health

3 cr.

(Open to all students; not a Natural Science course)
Course focuses on historic, physiological, social, cultural, emotional and economic issues affecting women's health. The course explores strategies to empower women's use of health-care services. Class members will be expected to participate actively in all discussions.

## NURS 140 - (FYOC,FYDT) Introduction to Nursing Concepts

3 cr.

(Prerequisite: Nursing majors only)
An exploration of the core concepts of the client, health, nursing and health patterns. Historical, philosophical, and social development of nursing and the role of the professional nurse are presented. Understanding of health and health continuum in the broader perspective of the human person. *Community Based: 20 hours.* Three hours lecture.

## NURS 213 - Child and Adolescent Health Promotion

3 cr.

(Recommended Prerequisite: PSYC 226 or but open to all students)
Focus on the professional's role as advocate, care-giver and/or teacher in the promotion of health for children and adolescents, directly through health maintenance and prevention and indirectly through health care policy.

## NURS 233 - Genetics for the Healthcare Professional

3 cr.

(Prerequisite: Completion of BIOL 100 or higher)
This course explores aspects genetics and genomics as it relates to the person and family with a genetic illness, and its application within the healthcare setting. The course is suited for those interested in the field of health science.

## NURS 241 - (FYDT, FYOC) Perspectives in Professional Nursing

3 cr.

(Prerequisites: WRTG 107; sophomore standing in Nursing, licensed nurses only; co-requisite: C/IL 104)
Perspectives in professional nursing explores concepts incorporated in the philosophy, organizing framework and curriculum structures of the Nursing program. Integration of the health patterns and nursing process in the delivery of professional nursing care is introduced. Pertinent issues impacting on the nursing profession are addressed.

## NURS 242 - Health, Illness and Assessment

3 cr.

(Prerequisites: sophomore standing, licensed nurses only; pre- or co-requisite: NURS 241)
Focus on the professional nurse’s role as caregiver in assessing, diagnosing and planning interventions of adaptive health patterns in individuals. Application of the nursing process to well persons and to individuals and families with alterations in health patterns. Exploration of concepts for planning holistic health care. Two hours lecture and three hours laboratory.

## NURS 250 - (EPW: lab only) Physical Assessment Related to Health Patterns

3 cr.

(Prerequisites: BIOL 110 -111, sophomore standing in Nursing)
Development of beginning skill in the basic physical-assessment techniques necessary for the promotion of optimal health as a care-giver. Focus on the professional nurse's role in assessing the physiological dimension of adaptive health patterns in individuals with a stable health status. *Community Based: 10 hours.* Two hours lecture and three hours campus laboratory.

## NURS 251 - Fundamentals of Nursing

4 cr.

(Prerequisites: NURS 140, NURS 250; co-requisite: NURS 262)
Focus on the professional nurse's role in promoting the individual's health status, utilizing the developmental, physiological, psychological and sociocultural dimensions of functional health patterns. Development of beginning skills in therapeutic nursing interventions. *Community Based: 10 hours.* Two hours lecture, six hours campus/clinical laboratory.

## NURS 262 - Pharmacology I

1.5 cr.

(Prerequisites: CHEM 110, BIOL 110 -111, BIOL 210)

Principles of pharmacology and specific drug groups. Emphasis is placed on drug actions, side effects, dosages and nursing responsibilities. (1.5 hr. lecture)

## NURS 310 - (D) Understanding Transcultural Health Care

3 cr.

This course will focus on exploring values, beliefs and lifestyles of diverse cultural groups in order to broaden the student's perception and understanding of health and illness and the variety of meanings these terms carry for members of differing groups.

## NURS 312 - (D) Interdisciplinary Assessment of the Older Adult

3 cr.

(Undergraduate elective for junior and senior level students)
Focus on preparing students interested in aging to develop geriatric assessment knowledge and skills. Content includes demographic, sociocultural, physical, pharmacological, functional, cognitive, and emotional issues effecting Baby Boomers and elders.

## NURS 314 - Principles of Nursing Ethics

3 cr.

(Prerequisites: PHIL 210, junior standing in Nursing, LPN or RN track)
Addresses ethical issues in the clinical nursing practice of the professional nurse as care-giver, advocate, teacher, leader/manager. The focus is on the decisions made regarding patient care. Three hours lecture.

## NURS 344 - Forensic Health Care of Victims

3 cr.

(Prerequisite: PSYC 110)

An overview of forensic health issues as they relate to victims of violent crimes, such as interfamilial violence, sexual violence, stalking, workplace violence, homicide and terrorism. Content includes forensic roles, evidence collection and preservation, victim needs and rights, responses to trauma, victim's resources, and death investigation.

## NURS 345 - Forensic Health Care of Offenders

3 cr.

(Prerequisite: PSYC 110)
An overview of forensic health issues as they relate to perpetrators of violent crimes, including interfamilial violence, sexual violence, stalking, workplace violence, homicide and terrorism. Content includes forensic roles, crime classifications, relationship between animal cruelty and human violence, offender needs and rights, and juvenile offenders.

## NURS 350 - Nursing Care of the Adult I

5.5 cr.

(Prerequisites: BIOL 210, CHEM 110-111, NURS 251; co-requisites: NURS 360 and NURS 352-352L)
The first of three courses that focuses on physiological and psychological adaptation to dysfunctional health patterns. Emphasis is placed on the nursing process and functional health patterns as a framework for practice. Pathophysiology and nursing care related to alterations in oxygenation, perfusion and metabolism, and the perioperative experience are included. Three hours lecture, 15 hours clinical lab/week (for seven weeks) alternate with NURS 352L.

## NURS 352-352L - Mental Health Nursing

5.5 cr.

(Prerequisites: CHEM 110-111, BIOL 110 -111, BIOL 210, NURS 251; co-requisites: NURS 360, NURS 350)
The focus is on psychological adaptation to dysfunctional health patterns. Emphasis is placed on the nursing process and functional health patterns as a framework for practice. Psychopathology and nursing care of individuals and families experiencing alterations in mental health are explored. Three hours lecture, 15 hours clinical lab/week (for seven weeks) alternate with NURS 350 lab.

## NURS 360 - Pharmacology II

1.5 cr.

(Prerequisite: NURS 262)
Principles of pharmacology and specific drug groups related to alterations in the sleep-rest, activity-exercise, self-perception/self-concept health patterns. Emphasis is placed on drug actions, side effects, dosages, and nursing responsibilities. (1.5 hr. lecture)

## NURS 361 - Pharmacology III

1.5 cr.

(Prerequisite: NURS 360)
Principles of pharmacology and specific drug groups related to alterations in the nutrition-metabolic, sexuality-reproduction, role-relationship, cognitive-perceptual, and elimination health patterns. Emphasis is placed on drug actions, side effects, dosages, and nursing responsibilities. (1.5 hr. lecture)

## NURS 371 - Nursing Care of the Adult II

5.5 cr.

(Prerequisites: NURS 350, NURS 352-352L, co-requisites: NURS 361, NURS 373 or NURS 452 lab)
The second of three courses that focus on physiological and psychological adaptation to dysfunctional health patterns. Emphasis is placed on the nursing process and functional health patterns as a framework for practice. Pathophysiology and nursing care related to alterations in metabolism, nutrition and immunity are included. Three hours lecture, 15 hours clinical lab/week (for seven weeks) alternate with NURS 373 or NURS 452 lab.

## NURS 373 - Nursing Care of the Childbearing Family

5 cr.

(Prerequisites: NURS 350, NURS 352-352L); co-requisites: NURS 361, NURS 371)
Focus is on the physiological and psychological adaptation to functional and dysfunctional health patterns in the child-bearing family. Emphasis is placed on the nursing process and functional health patterns as a framework for practice. Pathophysiology and nursing care related to childbearing, childbirth and their complications are addressed. Pathophysiological processes related to alterations in sexual health are also included. Clinical experiences are designed to develop the professional nursing role of care giver, advocate and teacher in promoting and restoring health. Three hours lecture, 12 hours clinical lab/week (for seven weeks) alternate with NURS 371 or NURS 450 lab taken fall senior year or spring junior year.

## NURS 391 - Nursing Care of the Perioperative Patient

3 cr.

(Prerequisite: NURS 350)
This course presents concepts and information essential for perioperative nursing practice. Content includes essentials and management of the patient's surgical experience. Precepted clinical experiences are provided in various phases of the perioperative experience and include preoperative, operative and post-anesthesia care. Emphasis is placed on the development of beginning skills in the operative setting. One credit lecture and two credits lab.

## NURS 405 - Health Writing for Publication

3 cr.

(Cross-listed with NURS 505; open to all junior and senior students)
This course enables students to enhance their writing skills by utilizing principles of effective writing as they relate to health issues. Students select projects to develop from idea to polished manuscript for both a professional journal and a consumer newspaper/magazine. Online, Web-based course.

## NURS 410 - Nursing Management

3 cr.

Study of the management process in nursing settings with a focus on the planning, implementation and delivery of nursing care in complex organizations. Focus is on the collaborative role of nursing within the organization and the analysis and resolution of problems. Three hours lecture.

## NURS 412 - End of Life Care

3 cr.

(Prerequisites: NURS 251, NURS 262, NURS 250)
This course focuses on ways to enhance end-of-life care for patients, families, and caregivers. The biological, psychosocial, and spiritual responses to dying are explored from a variety of aspects, including diverse cultural backgrounds. The structure of various health care systems and implications for care givers and clients are stressed. Guest lectures from experts in the field are included.

## NURS 450 - Nursing Care of the Adult III

5.5 cr.

(Prerequisites: NURS 371, NURS 361; co-requisite: NURS 452)
This is the final course in a three-course sequence that focuses on physiological and psychological adaptation to dysfunctional health patterns. Emphasis is placed on the nursing process and functional health patterns as a framework for practice. Pathophysiology and nursing care related to alterations in mobility, elimination, cognition, and perception are included. Three hours lecture, 15 hours clinical lab/week for seven weeks, alternate with NURS 452 or NURS 373 lab.

## NURS 452 - Nursing Care of Children and Adolescents

4.5 cr.

(Prerequisites: NURS 350, NURS 352-352L, NURS 361; co-requisite: NURS 371)
The focus is on the physiological adaptation to functional and dysfunctional health patterns in children and adolescents. Emphasis is placed on the nursing process and functional health patterns as a frame-work for nursing practice. Health promotion and the pathophysiology and nursing care related to the disorders of childhood are included. Three hours lecture, nine hours clinical lab/week for seven weeks, alternate with NURS 450 lab or NURS 371 lab taken fall senior year or spring junior year.

## NURS 471 - (D) Community Health Nursing

3.5 cr.

(Prerequisites: NURS 450, NURS 452; co-requisite: NURS 472)
The focus is on the professional nursing roles of care giver, advocate, teacher and leader/manager in promoting adaptive responses to functional and dysfunctional health patterns in individuals, families, communities and groups. The student synthesizes prior knowledge of functional health patterns and all phases of the nursing process in meeting the health-care needs of community-based clients in diverse population settings. 1.5 hours lecture/week; 18 hours clinical lab/week for 4.5 weeks (alternate with NURS 472 and NURS 472 labs).

## NURS 472 - Advanced Nursing Concepts

6 cr. (3 lecture - 3 lab)

(Prerequisites: NURS 450, NURS 452: co-requisite NURS 471)
This course examines the leadership process in nursing and correlates the process to safe, evidenced-based practice as it relates to physiological and psychological adaptations to complex dysfunctional health patterns. Continued use of the nursing process, informatics and evidence-based practice are emphasized. Development of case management skills in collaboration with the interdisciplinary health team further develops the professional nursing role of caregiver, advocate, teacher, and leader/manager in promoting, restoring and maintaining health. Clinical experiences are designed to enhance leadership development in caring for patients with complex health issues. Three hours/week lecture; 14 hours clinical lab/week for 9 weeks (alternate with NURS 471 lab).

*The following option is available for ROTC Nurse cadets: subject to annual review, 1.5 credits may be awarded for successful completion of the ROTC Nurse Summer Training Program (NSTP) in place of NURS 472A Lab. Three hours/week lecture; 14 hours clinical lab/week for 4.5 weeks, alternate with NURS 471 and 472B labs.*

## NURS 474 - Nursing Leadership and Management

3 cr.

(Prerequisites: NURS 241, NURS 242/242L, NURS 493)
This course is designed for Registered Nurses (RN) who are actively practicing clinical nursing. The student will utilize critical thinking to synthesize theoretical concepts from nursing practice, education and research in the development of leadership behaviors. One hour lecture (online format), two credits laboratory for a total of 70 precepted clinical hours over 15 weeks.

## NURS 483 - Independent Study in Nursing

3 cr.

(RN students only; Prerequisites: senior standing in the Nursing program, NURS 493)
An independent project of academic or professional nature in an area specific to professional nursing. Students develop and complete a specific project and work on a one-to-one basis with a faculty member in the Department of Nursing.

## NURS 491 - Senior Seminar

1 cr.

(Prerequisites: NURS 450, NURS 452; co-requisites: NURS 471, NURS 472)
This course will serve as a synthesis of critical concepts necessary for professional nursing practice. The use of critical thinking as it is applied to solving problems in the delivery of nursing care to patients with complex illnesses is emphasized. Through case study analysis and content synthesis, students will apply critical thinking skills to develop mastery of nursing concepts and principles of clinical nursing practice. Students will utilize computerized testing to gauge their knowledge of professional nursing content.

## NURS 493 - (EPW) Research in Nursing

3 cr.

(Prerequisites: senior standing in Nursing, PSYC 210)
Introduction to and application of the principles and process of research in professional nursing practice. Study of research design, data-collection techniques, interpretation and critique of nursing research, literature, and reports and the development of the ability to become a discriminating consumer of nursing research. Three hours lecture.

## NURS 495 - (D) Health Care in Africa

3 cr.

(Prerequisites: Completion of Junior level nursing courses)
Exploration of health care and public health in Uganda. Focus on endemic diseases: malaria, pneumonia, diarrhea, malnutrition, tuberculosis, & HIV/AIDS. Impact of environmental, social, cultural, and religious practices on health and wellness are examined. Work with health care providers to examine preventative strategies & treatment of communicable diseases. Travel to historical, cultural, ecological, and rural areas with an interdisciplinary student group. Intersession

## NURS 496 - (D) Healthcare Systems and Nursing Practice Abroad

3 cr.

(Prerequisites: NURS 140, NURS 250, NURS 251, NURS 350, NURS 352-352L)
This travel course will provide students with an opportunity to explore health issues abroad within the context of nursing. Students will build knowledge related to current US health care issues and nursing's role related to those issues. Two weeks will be spent in another country with instruction about that country's nursing profession and specific health care issues.

## NUTR 110 - (E) Introduction to Nutrition

3 cr.

An introduction to the interrelationship among nutrition, food and the environment as they impact health. Emphasis is placed on the multiple factors that influence food intake. The role and function of nutrients in health promotion and wellness throughout the life cycle will be discussed. *(Credit cannot be earned for NUTR 101 and NUTR 110.*)

## NUTR 220 - Nutrition for the Health Care Professions

3 cr.

(Prerequisites: BIOL 110 -111, CHEM 110 or CHEM 112; pre- or co-requisite: CHEM 111 or CHEM 113)
Focus on concepts of nutrition, including chemistry, digestion absorption and metabolism of nutrients. Exploration of the role of diet in chronic illness. Basic nutrition concepts applied to the needs of individuals across the life span, families, and communities.

## NUTR 350 - Nutrition through the Life Cycle

3 cr.

(Formerly EXSC 350) (Prerequisite: NUTR 110 or NUTR 220 or BIOL 255)
This course is based on the common organizational structure used in nutrition that begins with key nutrition concepts then moves to prevalence statistics, physiological principles, and then, nutrition needs and recommendations. The needs addressed begin with preconception and then trace those needs through the aging process and is suitable for a variety of career goals.

## OIM 251 - Excel for Business Applications

1 cr.

This course focuses on developing student's skills in Excel as a tool for modeling business applications. Advanced Excel functions such as PivotTables, Vlookup, What-if-Analysis, Solver, and Goal Seek, will be applied in the context of analyzing business problems. Leveraging Excel tools for financial and statistical analysis will also be covered for managerial decision making.

## OIM 351 - Introduction to Business Analytics

3 cr.

(Prerequisite: STAT 251)
A survey of quantitative techniques used to analyze and solve business problems. Topics include linear programming methods, waiting line models, project scheduling, and simulation. Emphasis is placed on model building and analysis using spreadsheet software.

## OIM 351K - Introduction to Management Science

3 cr.

An honor survey of quantitative techniques used to analyze and solve business problems. Topics include linear programming methods, waiting line models, project scheduling, and simulation. Emphasis is placed on model building and analysis using spreadsheet software.

## OIM 352 - Introduction to Operations Management

3 cr.

(Prerequisites: OIM 351, STAT 252)
A functional view of how to manage the activities involved in the process of converting or transforming resources into products or services. Topics include an overview of strategic decisions, forecasting, product design, process planning, facility layout, basic inventory models, capacity planning, aggregate planning and scheduling.

## OIM 352K - Introduction to Operations Management

3 cr.

A functional view of how to manage the activities involved in the process of converting or transforming resources into products or services at an honors-level. Topics include an overview of strategic decisions, forecasting, product design, process planning, facility layout, basic inventory models, capacity planning, aggregate planning and scheduling.

## OIM 353 - Business Process Overview

3 cr.

This is the first course in the area of enterprise management. Students will learn to appreciate the integration of a company's core business processes. Students will be exposed to the main business processes that drive an organization, the interactions within and between them, and the effect of integration on the decision-making environment. This course uses an enterprise-wide integrated information-systems software and simulated data for a model company. (Credits may not be earned for OIM 353 and BUAD 351.)

## OIM 362 - Quality Management

3 cr.

(Prerequisite: STAT 252) (None Writing Intensive)
The philosophy of Total Quality Management (TQM) and issues concerning its implementation are studied, covering the approaches of well-known leaders in the field, e.g., Deming. Topics include employee empowerment, quality-improvement tools, cross-functional teams, leadership for quality, statistical-process control, process capability, Taguchi methods, ISO 9000 standards, and the role of inspection in quality management. Course will be offered every other year.

## OIM 363 - Quality Management

3 cr.

(Prerequisite: STAT 252)
The philosophy of Total Quality Management (TQM) and issues concerning its implementation are studied, covering the approaches of well-known leaders in the field, e.g., Deming. Topics include employee empowerment, quality-improvement tools, cross-functional teams, leadership for quality, statistical-process control, process capability, Taguchi methods, ISO 9000 standards, and the role of inspection in quality management.

## OIM 366 - (EPW) Supply Chain Management

3 cr.

(Prerequisite: OIM 352 or permission of instructor)
Many companies view Supply Chain Management as the core of their business strategy. Students will learn how principles of Supply Chain Management integrate into the management of the enterprise and the business processes. Students will examine the use of information technologies in Supply Chain Management. Computer software will be used to gain hands-on experience.

## OIM 444 - Business Forecasting Models

3 cr.

(Prerequisite: STAT 252)
Quantitative forecasting methods are covered including averaging and smoothing techniques, time series decomposition of underlying components, and casual modeling such as simple and multiple regression. Students are introduced to autoregressive integrated moving average (ARIMA) models using the Box-Jenkins approach. Developing systematic approach to forecasting problems is emphasized. (Credits cannot be earned for both OIM 444 and OM 544)

## OIM 462 - Project Management in Organizations

3 cr.

(Prerequisite: MGT 351)
This course will examine advanced project-management concepts from all phases of the project lifecycle (from requirements-specification through post-project assessment). Special emphasis will be placed on understanding projects within the context of complex organizational settings by utilizing an open-systems perspective. Linkages with more permanent administration structures within the organization will be reviewed. (Credit cannot be earned for OIM 462 and MGT 462.)

## OIM 463 - Data Mining

3 cr.

(Prerequisite: STAT 252)
Data mining refers to an analytic process designed to explore data (usually large amounts of data - typically business or market related - also known as "big data") in search of consistent patterns and/or systematic relationships between variables, and then to validate the findings by applying the detected patterns to new subsets of data. Hands-on applications of various data mining techniques (e.g. classification, association analysis, clustering, text mining, anomaly detection, feature selections) using data mining software tools will be used. (Credits may not be earned for OIM 463, EC 463 and BUAN 463.)

## OIM 470 - Production Planning and Control

3 cr.

(Prerequisite: OIM 352)
This course is concerned with the study of production planning and control activities in an enterprise resource-planning context. Topics include forecasting, aggregate planning, capacity planning, master production scheduling, material requirements planning, production activity control, purchasing, inventory models, and Just-in-Time Systems. The interactions between operations and the other functional areas of the business will be emphasized.

## OIM 471 - Business Information Management

3 cr.

Computers and how they can be applied to the operations and management of business firms. Topics include data-processing concepts, overviews of computer hardware and software, modern data- and information-processing systems, applications of computers in business, acquiring and managing of computer and information resources. Software packages will be used to gain hands-on experience.

## OIM 471K - Business Information Management

3 cr.

Computers and how they can be applied to the operations and management of business firms. Topics include data-processing concepts, overviews of computer hardware and software, modern data- and information-processing systems, applications of computers in business, acquiring and managing of computer and information resources at an honors-level. Software packages will be used to gain hands-on experience.

## OIM 472 - Electronic Business and Entrepreneurship

3 cr.

(Prerequisite: senior standing or permission of instructor)
The course examines the issues related to the starting of new technology-based businesses. It focuses on entrepreneurial traits, idea generation, entry strategies, marketing plans and development of business plans. Venture capital and other forms of financing will also be covered. In addition there will be a discussion on legal and intellectual properties issues.

## OIM 473 - Business Applications of Communication Networks

3 cr.

(Prerequisite: OIM 471 or permission of instructor)
Students explore the use of computer and telecommunication networks to achieve organizational goals. Topics include data communications; planning and design of communication networks; data integrity, independence and security; client-server computing; global communication; the Internet; applications of telecommunication networks and current issues and future trends. (Credit cannot be earned for OIM 473 and ACC 479.)

## OT 120 - (FYOC,FYDT) Foundations of Occupational Therapy

3 cr.

In this introductory course students explore the history, philosophical base and core values of the profession of occupational therapy. Students will be introduced to professional standards and ethics, tool of practice, and frames of reference that guide the therapeutic process.

## OT 121 - Occupational Performance

3 cr.

Students will explore and analyze occupations/activities throughout the lifespan and gain experience inactivity modification (activity grading, environmental modifications) through collaborative learning, problem-solving, and reflection. Principles of professional identity, teamwork, and group leadership and integrated in learning experiences.

## OT 140 - Introduction to Occupational Therapy

2 cr.

An introduction to the profession of occupational therapy; its history, philosophical base, core values, professional standards, ethics, tools of practice, and frames of reference are presented. Employment settings, practitioner roles and professional development are explored, with particular emphasis placed on the student's future role as an entry-level occupational therapist. Majors only. One two-hour seminar/week, and ten hours of community based learning.

## OT 141 - Occupational Therapy Theoretical Concepts

3 cr.

An introduction to occupational therapy theories and models of practice, with emphasis on an analysis of their history, philosophical foundations, and applications to practice. The focus is on human occupation and adaptation, and its multicultural aspects. Three hours lecture/week, and ten hours of community based learning.

## OT 230 - Anatomy & Mechanics of Human Movement

2 cr.

(Prerequisites: BIOL 110/110L - BIOL 111/111L, PHYS 120/PHYS 120L; Co-requisite: OT 230L)
A regional in-depth study of human anatomy and application of principles of functional movement with major emphasis on normal and abnormal movement. Focus is placed upon anatomical structures involved with movement and strength as required for areas of human occupation.

## OT 230L - Anatomy & Mechanics of Human Movement Lab

1 cr.

(Prerequisites: BIOL 110/110L, BIOL 111/111L , PHYS 120/PHYS 120L co-requisite: OT 230)
A regional in-depth study of human anatomy and application of principles of functional movement with major emphasis on normal and abnormal movement. Focus is placed upon anatomical structures involved with movement and strength as required for areas of human occupation.

## OT 231 - Neuroanatomy of Function

3 cr.

(Prerequisites: OT 230 and OT 230L)
An overview of applied neuroanatomy with emphasis on neurological foundations of movement, behavior, development and change. Typical nervous system function is explored with the aim of understanding conditions of dysfunction and how a person's occupational performance may be impacted. Instruction includes integration of lecture, self-directed learning and hands-on activities.

## OT 240 - Activity Analysis I

3 cr.

(Prerequisite: OT 141)

Analysis, theory, and application of activities and media used in occupational therapy treatment with children and adolescents. Introduction to standardized and non-standardized tests to assist in selecting activities. Principles of leading groups, adaptation, and grading activities addressed through active learning. Two hours lecture, two hours lab/week, and ten hours of community based learning.

## OT 241 - Activity Analysis II

3 cr.

(Prerequisite: OT 240)
Analysis, theory, and application of activities and media used in occupational therapy treatment with adults. Introduction to standardized and non-standardized tests to assist in selecting activities. Proper documentation of treatment intervention addressed through case studies and problem-based learning. Two hours lecture, two hours lab/week, and ten hours of community based learning.

## OT 250 - (EPW) Scientific Writing and Information Literacy

3 cr.

Students will learn the language of scientific inquiry and how to locate and critically examine research publications in occupational therapy and related fields. They will also learn the basic steps to create evidence-based reviews on specific clinical topics and to write in a scientific style.

## OT 256 - Human Anatomy for OT

3 cr.

(Prerequisites: BIOL 110 -111 with labs)
A regional in-depth study of human anatomy with major emphasis on functional anatomy. This will be accomplished through the study of prosected human specimens and surface anatomy. Three hours lecture, two hours lab/week.

## OT 275 - Clinical Kinesiology

3 cr.

(Prerequisites: BIOL 110 -111 with labs; OT 256)
Application of the principles of functional anatomy with emphasis on normal and abnormal movement. Measurement techniques for range of motion and muscle testing are presented, with emphasis on the movement and strength requirements found in self-care, work, and leisure activities. Concepts are integrated in lab experiences. Two hours lecture, two hours lab/week.

## OT 320 - Children and Youth Practice I

2 cr.

(Prerequisites: OT 121, OT 231, OT 250; Co-requisite: OT 320L)
An overview of pediatric practice models, evaluation, and evidenced-based treatment intervention techniques used to enhance the function of infants, children, and young adults with developmental and other disabilities. In labs emphasis is placed on experiential learning, inquiry and problem-solving to acquire the foundation for addressing occupational performance in pediatric populations.

## OT 320L - Children and Youth Practice I

1 cr.

(Prerequisites: OT 121, OT 231, OT 250: Co-requisite: OT 320)
An overview of pediatric practice models, evaluation, and evidence-based treatment intervention techniques used to enhance the function of infants, children, and young adults with developmental and other disabilities. In labs emphasis is placed on experiential learning, inquiry and problem-solving to acquire the foundation for addressing occupational performance in pediatric populations.

## OT 321 - Children and Youth Practice II

3 cr.

(Prerequisites: OT 320/OT 320L; Co-requisite: OT 321L)
Application of foundational knowledge to the evaluation and treatment of infants, children, and young adults in context of their families. This course integrates classroom knowledge with hands-on experiences under the direct supervision of qualified practitioner. Students explore evidence for traditional and non-traditional interventions.

## OT 321L - Children and Youth Practice II

1 cr.

(Prerequisites: OT 320/OT 320L; co-requisite: OT 321)
Application of foundational knowledge to the evaluation and treatment of infants, children, and young adults in context of their families. This cores integrates classroom knowledge with hand-on experiences under the direct supervision of a qualified practitioner. Students explore evidence for traditional and non-traditional interventions.

## OT 322 - Mental Health in Occupational Therapy Practice

2 cr.

(Prerequisites: OT 121, OT 231, PSYC 225; co-requisite: OT 322L)
An overview of theoretical frames of reference, evaluation and evidence-based intervention used to enhance the function of individuals with mental health issues in the context of home, school and work environments. Methods of clinical observation, assessment, and treatment approaches for a variety of populations are explored in laboratory simulations.

## OT 322L - Mental Health in Occupational Therapy Practice Lab

1 cr.

(Prerequisites: OT 121, OT 231, PSYC 225; co-requisite: OT 322)
An overview of theoretical frames of reference, evaluation and evidence-based intervention used to enhance the function of individuals with mental health issues in the context of home, school and work environments. Methods of clinical observation, assessment, and treatment approaches for a variety of populations are explored in laboratory simulations.

## OT 340 - Promoting Health and Well-Being

3 cr.

(Prerequisites: OT 121, OT 320/OT 320L, OT 380)
This course examines how occupation relates to health, well-being and participation in life for individuals, groups and populations. Students engage in advanced analysis of occupational therapy concepts and clinical reasoning to guide the intervention process and establish programs promoting health and wellness.

## OT 346 - Pathological Conditions I

3 cr.

(Prerequisite: OT 256)
A review of pathological conditions seen in occupational therapy practice, including: diagnosis, etiology, progression, performance deficits, treatment, prognosis, and functional outcomes. Emphasis is placed on examining developmental and pediatric disabilities. The promotion of health, prevention, and implications for the individual, family, and society are discussed. Three hours lecture/week.

## OT 347 - Pathological Conditions II

3 cr.

(Prerequisite: OT 256, OT 346)
A review of pathological conditions seen in occupational therapy practice, including: diagnosis, etiology, progression, performance deficits, treatment, prognosis, and functional outcomes. Emphasis placed on examining adult and geriatric conditions. The promotion of health, prevention, and implications for the individual, family, and society are discussed. Three hours lecture/week.

## OT 350 - (EPW) Quantitative and Qualitative Research Methods

3 cr.

(Prerequisites: OT 250; PSYC 210 or EDUC 120)
This course examines the wide range of research designs used in the health care professions. Both qualitative and quantitative approaches are reviewed and evaluated in terms of their purpose, strengths and limitations. Students engage in simulated research activities and design a research project.

## OT 356 - Functional Neuroanatomy

3 cr.

(Prerequisites: OT 256, OT 275)
An overview of applied neuroanatomy and function, with emphasis on sensory, perceptual, and motor performance. Normal structure and function are discussed, together with nervous system dysfunction, as applied to self-care, work, and leisure activities related to OT practice. Two hours lecture, two hours lab/week.

## OT 360 - Occupational Therapy Practice I: Pediatrics

3 cr.

(Prerequisites: OT 240, OT 241, OT 275)

An overview of theoretical frames of reference, evaluation, and treatment intervention techniques used to enhance the function of infants, children, and other individuals with developmental disabilities. Emphasis is placed on current recommended practices, evidence-based research, and clinical/educational experiential learning opportunities. Two hours lecture, two hours lab/week, and ten hours of community based learning.

## OT 361 - Occupational Therapy Practice II: Psychosocial Rehabilitation

3 cr.

(Prerequisites: OT 240, OT 241; co-requisite: CHS 341)
An overview of theoretical frames of reference, evaluation, and treatment intervention strategies used to enhance the function of individuals with psychosocial dysfunction. Methods of clinical observation, assessment, and treatment approaches are introduced and practiced in lab simulations and field trips to area facilities. Two hours lecture, two hours lab/week and ten hours of community based learning.

## OT 380 - Occupational Therapy Level I Clinical - I: Pediatrics

1 cr.

(Prerequisites: OT 346, OT 356, OT 360)
Directed observation and supervised participation in the occupational therapy process in a pediatric/developmental disabilities setting. Emphasis on the integration of theory and practice. Requirement: 40 hours.

## OT 381 - Occupational Therapy Level I Clinical - II: Psychosocial Rehabilitation

1 cr.

(Prerequisites OT 347, OT 361, OT 380)
Directed observation and supervised participation in the therapeutic process in a psychosocial rehabilitation setting. Emphasis is placed on the integration of theory and practice. Requirement: 40 hours.

## OT 393 - (EPW) Research Methods in Occupational Therapy

3 cr.

(Prerequisite: PSYC 210)
This course provides an introduction to understanding how professionals contribute to the knowledge base that supports the field of occupational therapy. The student learns the language of scientific inquiry and how to critically examine research-based literature. The guiding principles that support sound research practices are examined throughout the course.

## OT 420 - The Occupational Therapy Process in Physical Rehabilitation I

2 cr.

(Prerequisites: OT 231, OT 321/OT 321L, OT 340; co-requisite: OT 420L)
This course focuses on conditions commonly seen in physical rehabilitation. Occupational deficits arising from these conditions will be examined in-depth. Facilitation of clinical reasoning will be emphasized as students navigate the OT process (from evaluation to discharge). Medical abbreviations, and documentation skills required throughout the OT process will be stressed.

## OT 420L - The Occupational Therapy Process in Physical Rehabilitation I Lab

1 cr.

(Prerequisites: OT 231, OT 321/OT 321L, OT 340; co-requisite: OT 420)
This lab focuses on conditions commonly seen in physical rehabilitation. Occupational deficits arising from these conditions will be examined in-depth. Students will demonstrate good safety and judgment with their clients as they navigate the OT process. Medical abbreviations, and documentation skills required throughout the OT process will be stressed.

## OT 421 - The Occupational Therapy Process in Physical Rehabilitation II

2 cr.

(Prerequisites: OT 420/OT 420L; co-requisite: OT 421L)
This course incorporates and expands on content from OT 420. Students gain competence in using evidence-based research for designing and implementing treatment plans that reflect best practice. Conditions commonly seen in the physical rehabilitation (CVA, TBI, SCI, etc.) are presented through case studies and problem-based learning activities.

## OT 421L - The Occupational Therapy Process in Physical Rehabilitation II Lab

1 cr.

(Prerequisites: OT 420/OT 420L; co-requisite: OT 421)
This course incorporates and expands on content from OT 420. Students gain competence in using evidence-based research for designing and implementing treatment plans that reflect best practice. Conditions commonly seen in the physical rehabilitation (CVA, TBI, SCI, etc.) are presented through case studies and problem-based learning activities.

## OT 422 - The Functional Upper Extremity

2 cr.

(Prerequisite: OT 231; co-requisite: OT 422L)
Students will examine the upper extremity as a functional tool of the human body. Building on anatomy, physiology and development of the upper limb, students conduct assessments and design interventions for clients with various pathologies. The emphasis is for students to develop an evidenced-based, occupation-centered perspective on upper extremity rehabilitation.

## OT 422L - The Functional Upper Extremity Lab

1 cr.

(Prerequisite: OT 231; co-requisite: OT 422)
Students will examine the upper extremity as a functional tool of the human body. Building on anatomy, physiology and development of the upper limb, students conduct assessments and design interventions for clients with various pathologies. The emphasis is for students to develop an evidenced-based, occupation-centered perspective on upper extremity rehabilitation.

## OT 423 - (D) Occupational Therapy Practice in Adulthood and Aging

3 cr.

(Prerequisites: OT 340, OT 322, OT 420/OT 420L)
An overview of theoretical frames of reference, evaluations, and intervention strategies to enhance culturally relevant occupations in older adults. Students will observe, assess, and complete therapeutic interventions to develop an effective holistic approach to geriatric practice. Integrating community-based learning into the course, students will gain experience interacting with older adults.

## OT 424 - Functional Visual Performance

3 cr.

(Prerequisites: OT 321/OT 321L, OT 420/OT 421L)
Focusing on vision and technology, students explore and experience the impact of vision deficits on occupational performance throughout the lifespan. Topics include anatomy, diagnoses, evaluations, interventions and roles of other professionals. Incorporation of technology for visual impairment and other limitations are applied to the individual and environment to facilitate independence.

## OT 440 - Management and Supervision of Occupational Therapy Services

3 cr.

An application of major management principles to the provision of occupational therapy services with an emphasis on the administrative and supervisory requirements in managing an occupational therapy department. Information provided concerning program planning, recruitment, marketing, budgeting, supervision, documentation, evaluation, reimbursement, and quality assurance. Three hours lecture/week.

## OT 450 - Supervision and Management

3 cr.

(Prerequisites: OT 380 and [PHIL 212, PHIL 316, T/RS 227 or T/RS 235])
This course focuses on the application of management principles in occupational therapy practice settings. Emphasis is placed on administration, supervision, program planning, program evaluation, documentation, reimbursement, ethics, advocacy and quality assurance.

## OT 451 - Hand Rehabilitation

2 cr.

(Prerequisites: OT 256, OT 275, OT 356)
An in-depth review of the functional anatomy of the hand and arm, with emphasis on rehabilitation principles and basic splinting techniques. Theoretical concepts, evaluation, and fabrication procedures are integrated in lab experiences. One hour lecture, two hours lab/week.

## OT 460 - Occupational Therapy Practice III: Physical Rehabilitation

3 cr.

(Prerequisites: OT 256, OT 275, OT 346, OT 347, OT 356, OT 360, OT 361, OT 380, OT 381)
A study of the occupational therapist's complex role in providing services to individuals with physical dysfunction. Theoretical frames of reference and various intervention approaches are integrated as techniques and strategies to enhance functional performance are introduced, observed and practiced. Emphasis on safe clinical practice and development of sound clinical reasoning skills. Two hours lecture, two hours lab/week and ten hours of community based learning.

## OT 461 - (D) Occupational Therapy Practice IV: Geriatrics

3 cr.

(Prerequisites: OT 346, OT 347, OT 356, OT 460)

An overview of frames of reference, evaluations, and interventions used to enhance elder's well-being. Emphasis is placed on understanding the biopsychosocial changes and environmental contexts of elders. The ability to provide holistic and humanistic elder care is facilitated through lab simulations, completion of a program needs assessment, and via service learning. Two hours lecture, two hours lab/week and ten hours of community based learning.

## OT 475 - Advanced Therapeutic Techniques

3 cr.

(Prerequisites: OT 451, OT 460, OT 480)
An in-depth examination of selected concepts and approaches in physical rehabilitation, with an introduction to certain specialized areas of occupational therapy practice. Topics will include standardized assessments, industrial rehabilitation, pain and soft tissue management, neurodevelopmental treatment, adaptive positioning and seating, cognitive-perceptual rehabilitation, and reimbursement issues. Two hours lecture, two hours lab/week.

## OT 480 - Occupational Therapy Level I Clinical III: Physical Rehabilitation

1 cr.

(Prerequisites: OT 381, OT 451, OT 460)
Directed observation and supervised participation in the therapeutic process in a physical rehabilitation setting. Emphasis is placed on the integration of theory and practice. Requirement: 40 hours.

## OT 491 - Research and Scholarship I OTD

2 cr.

(Prerequisites: OT 350)
Students work in small groups on designing a scholarly study which will be implemented in OT 493. Research topics will be explored, a specific research question will be identified, the literature reviewed, and a research proposal will be submitted for review and approval.

## OT 492 - Research and Scholarship I

2 cr.

(Prerequisite: OT 350)
Students begin the process of designing and implementing a scholarly study which will culminate in a capstone project in the graduate year. Research topics will be explored, a specific research question will be identified, the literature reviewed, and a research proposal will be submitted for review and approval.

## OT 493 - Research and Scholarship II OTD

2 cr.

(Prerequisite: OT 491)
Student groups will collect data according to the design of their research project. Managing data, data analysis, interpretation and application of findings will be done with a faculty mentor. The project and findings will be presented in a scholarly format such as conference presentation or poster.

## OT 494 - (EPW) Evidence Based Research

3 cr.

(Prerequisite: OT 393)
This course provides an in-depth study of evidence-based practice. It is a course for occupational therapy students designed to develop essential skills for conducting evidence-based research. It includes the basic steps of the evidence-based practice process and how to apply those steps to examine clinical questions.

## OT 501 - Leadership in Occupational Therapy

3 cr.

(Prerequisite: OT 581 or OT 582)
Extensive analysis of the profession's historical influences, current, and emerging trends in occupational therapy leadership, and possibilities for personal leadership evolution. Emphasis is placed upon examining the link between professional ethics, personal values, and leadership. Systemic challenges to ethical leadership and professional supports for sustaining ethical practice are presented. Three hours lecture/week.

## OT 502 - Advanced Occupational Therapy Theory

3 cr.

(Prerequisite: OT 581 or OT 582)
A review of how occupational therapy paradigms have been established and changed over time, and how these changes have influenced occupational therapy practice will be presented. Particular attention will be paid to the cultural, economic, and demographic motivators of theory development and application. Three hours lecture/week.

## OT 503 - Evaluation Intervention for Visual Impairment in Older Adults

3 cr.

An overview of visual impairment in older adults, evaluations, and interventions used to enhance functional independence. Emphasis is placed on evaluating and providing therapeutic interventions for the visually impaired. The ability to provide holistic and humanistic care is facilitated through lab simulations. Two hours lecture, two hours lab/week.

## OT 520 - Advanced Occupational Performance I

3 cr.

Students integrate cumulative knowledge and experience to design and apply effective solutions in natural, complex, real-world contexts. The focus is on the lived experiences and needs of the birth through young adult population who are disabled or experience disparities. Principles of occupational performance are applied in traditional and non-traditional settings.

## OT 521 - Advanced Occupational Performance II

3 cr.

Students integrate cumulative knowledge and experience to design and apply effective solutions in natural, complex, real-world contexts. The focus is on the lived experiences and needs of the adult population who are disabled or experience disparities. Principles of occupational performance are applied in traditional and non-traditional settings.

## OT 525 - Occupational Therapy in Community Settings

3 cr.

In this course students examine community-based programs, non-medical settings, alternative care and natural environments. The benefits and challenges of family- and client-centered programs are explored. Students discover the value of advocacy for occupational justice and develop a professional identity that views occupational therapy as vital to community practice settings.

## OT 526 - Neurocognitive and Neuromotor Challenges: Assessments & Interventions

3 cr.

(Prerequisite: OT 581)

This course focuses on components of occupational therapy evaluation and intervention in adults and older adults with neurological impairment. Evaluations, treatment planning, implementation, and review of functional, evidenced based interventions, and overall outcomes will be addressed. Learning activities will include, case-based scenarios, simulated patients and community based projects.

## OT 530 - Topics in Occupational Therapy I

1 cr.

(Prerequisite: OT 581)
This course provides an opportunity for the students to gain advanced skills in clinical practice, research, leadership, or advocacy. Seminar topics are provided by experts in their fields to offer in-depth exploration of emerging areas of occupational therapy practice or areas of significance to the interdisciplinary health care team.

## OT 531 - Topics in Occupational Therapy II

1 cr.

(Prerequisite: OT 581)
This course provides an opportunity for the students to gain advanced skills in clinical practice, research, leadership, or advocacy. Seminar topics are provided by experts in their fields to offer in-depth exploration of emerging areas of occupational therapy practice or areas of significance to the interdisciplinary health care team.

## OT 542 - Understanding Disability and the Therapeutic Relationship

3 cr.

(Prerequisite: OT 581)
An in-depth analysis of disability from the perspective of the individual is examined through engaged discussion, group problem-solving and invited presentations. Students reflect on personal and professional experiences. Concepts, skills and application of therapeutic use of self is developed and refined for successful engagement in therapeutic relationships.

## OT 544 - Leadership Principles, Ethics and Pragmatics

3 cr.

(Prerequisite: OT 581)
Extensive analysis of the profession's historical influences, current and emerging trends in occupational therapy leadership, and possibilities for personal leadership evolution. Emphasis is placed upon examining the link between professional ethics, personal values, and leadership. Systemic challenges to ethical leadership and professional supports for sustaining ethical practice are investigated.

## OT 550 - Graduate Seminar in Theory

3 cr.

(Prerequisite: OT 581)
This course emphasizes the critical nature of theory in practice. The occupational therapy paradigms and the theories that have influenced practice will be critiqued in-depth. Through various learning activities students will demonstrate how their analyses of occupational therapy theories and related assessments are used to frame practice.

## OT 560 - Advanced Interpersonal Dynamics

3 cr.

(Prerequisite: OT 581 or OT 582)

A review of the concepts and aspects of interpersonal, intrapersonal, and group dynamics provides a foundation for the student to understand the meaning of illness and how that impacts the human condition. An in-depth analysis of disability from the perspective of the disabled is explored. Two hours lecture, two hours lab/week or equivalent.

## OT 575 - Community-Based Practice

3 cr.

(Prerequisite: OT 581 or OT 582)
In-depth exposure to selected areas that represent the current focus of advanced practice in occupational therapy. The areas of practice examined in the course will include community-based programs, non-medical settings, alternative care, and natural environments. Two hours lecture, two hours lab/week or equivalent.

## OT 581 - OT Level II Fieldwork – I

6 cr.

(Prerequisite: completion of all undergraduate coursework or academic graduate coursework)
Level II fieldwork is designed to provide opportunities for the student to integrate academically acquired knowledge with occupational therapy practice in physical, psychosocial, and developmental contexts. Level II experiences are mentored to facilitate student clinical reasoning in current and emerging areas of practice. During Level II fieldwork the student will design and implement occupational therapy services for individuals, groups and populations across the lifespan. OT certification examination eligibility requires 24 weeks total Level II fieldwork (minimum). Offered: Summer, following the fourth or fifth year of the program, twelve weeks, full time.

## OT 582 - OT Level II Fieldwork – II

6 cr.

(Prerequisite: completion of all undergraduate coursework or academic graduate coursework)
Level II fieldwork is designed to provide opportunities for the student to integrate academically acquired knowledge with occupational therapy practice in physical, psychosocial, and developmental contexts. Level II experiences are mentored to facilitate student clinical reasoning in current and emerging areas of practice. During Level II fieldwork the student will design and implement occupational therapy services for individuals, groups and populations across the lifespan. OT certification examination eligibility requires 24 total Level II fieldwork (minimum). Offered: Summer, following fourth or fifth year of program, twelve weeks, full time.

## OT 583 - OT Level II Fieldwork – III: Specialty (Optional)

4-6 cr.

(Prerequisite: completion of all undergraduate coursework or academic graduate coursework)
Level II field-work is designed to provide opportunities for the student to integrate academically acquired knowledge with occupational therapy practice in physical, psychosocial, and developmental contexts. Level II experiences are mentored to facilitate student clinical reasoning in current and emerging areas of practice. During Level II fieldwork the student will design and implement occupational therapy services for individuals, groups and populations across the lifespan. Arranged on an availability basis. Offered: Fall, following the fifth year of the program, eight to twelve weeks, full time.

## OT 592 - Research and Scholarship II

2 cr.

Following OT 492 students will actively engage in participant recruitment and data collection for their project. Students work collaboratively under the supervision of a faculty mentor

## OT 593 - Research and Scholarship III

2 cr.

(Prerequisite: OT 592)
This is the third and final course of the process of designing, conducting and reporting a research study. Students will analyze, interpret and connect the findings to the research question. A scholarly presentation is the capstone of this course series.

## OT 597 - Faculty Research Internship I

1 cr.

(Prerequisites: OT 393, OT 494, PSYC 210, CITI Course in the Protection of Human Subjects)
This course represents a mentored internship experience on a faculty-led research project in order to develop beginning-level research skills. Internship may involve preparing DRB/IRB proposals, literature reviews, quantitative and qualitative data collection and analysis, grant investigations, and dissemination activities. The importance of professional collaboration is emphasized.

## OT 598 - Faculty Research Internship II

2 cr.

(Prerequisites: OT 597)
This course represents a mentored internship experience on a faculty-led research project in order to develop beginning-level research skills. Internship may involve preparing DRB/IRB proposals, literature reviews, quantitative and qualitative data collection and analysis, grant investigations, and dissemination activities. The importance of professional collaboration is emphasized.

## OT 701 - Doctoral Capstone I

3 cr.

This course is an overview of the doctoral capstone processes and expectations. Based on acquired knowledge and clinical experience students investigate potential areas for the capstone project and identify resources to support the project idea. Students will establish a connection with a community partner and begin the planing process.

## OT 702 - Doctoral Capstone II

3 cr.

(Prerequisite: OT 701)
Students develop the doctoral capstone project through in-depth review of the literature and a structured needs assessment done in collaboration with a community partner. The developing project plan is further focused to address a specific need or opportunity which can advance the profession's practice.

## OT 703 - Doctoral Capstone III

2 cr.

This is the final step in preparation for the capstone experience. Students formalize a proposal, develop goals, establish outcome measures, and plan specific activities for the on-site Capstone Experience.

## OT 730 - Topics in Occupational Therapy III

1 cr.

(Prerequisite: Level 2 Fieldwork, OT 581)

This course provides an opportunity for the students to gain advanced skills in clinical practice, research, leadership, or advocacy. Seminar topics are provided by experts in their fields to offer in-depth exploration of emerging areas of occupational therapy practice or areas of significance to the interdisciplinary health care team.

## OT 744 - Advanced Leadership Principles, Ethics and Pragmatics

3 cr.

(Prerequisites: OT 581, OT 582)
For the doctoral student this course explores leadership theoretical foundations, professional ethics and systemic challenges to sustaining practice. Building on experience from two fieldwork settings, students problem-solve current issues facing the profession and examine possibilities for personal leadership. Students have the opportunity to engage directly with leadership in the field.

## OT 750 - Advanced Assessment Across the Lifespan

3 cr.

(Prerequisites: OT 520, OT 521)
Building on classroom and clinical experiences students learn to select appropriate assessment tools, evaluate the psychometric properties, critique supporting evidence for the tool, and interpret results. Students develop expertise in a wide range of assessments in occupational therapy covering infancy through geriatrics and arose ma nay performance areas.

## OT 780 - Capstone Experience

6 cr.

(Prerequisite: OT 703)
The doctoral student engages in the program or activities developed during the Capstone Seminars. This is a 14-week (560) hours, independent, on-site experience conducted under the supervision of a faculty member and a community mentor. Upon completion the project will be disseminated to demonstrate synthesis of in-department knowledge.

## PCPS 408 - (D) Self Care and Resiliency in the Helping Professions

3 cr.

(This course is for senior level students in the Panuska College for Professional Studies)
This course will explore issues in the healthcare, counseling and education professions that occur in individuals and who have prolonged interactions with students, clients, patients and their families. Issues of work related loss, grief, stress, compassion fatigue, and burnout will be explored. Techniques to maintain psychological well-being will be demonstrated. Suggestions on how to practice rigorous self-care and maintain a supportive work environment will be addressed.

## PCPS 501 - Interdisciplinary Developmental Assessment in Pediatrics

3 cr.

This course will focus on the assessment of infants, young children, and adolescents and their families. This course reflects an integrative curriculum model that incorporates team teaching and a faculty practice format whereby students complete actual pediatrics core evaluations under the direct supervision of a qualified practitioner.

## PCPS 540 - Allied Health Seminar Series I

2 cr.

(Prerequisites: Completion of undergraduate coursework; completion of OT 581 or OT 582)
This course develops advanced skills in clinical practice, research, leadership, or advocacy. Aiding student's transition to practitioner, it provides technical expertise as well as practice in collegial engagement and self-directed professional

development. Seminar topics offer in-depth exploration of emerging or 'specialty' areas of occupational therapy practice or areas of significance to the interdisciplinary health care team.

## PCPS 541 - Allied Health Seminar Series II

1 cr.

(Prerequisites: Completion of undergraduate coursework; completion of OT 581 or OT 582)
This course develops advanced skills in clinical practice, research, leadership, or advocacy. Aiding student's transition to practitioner, it provides technical expertise as well as practice in collegial engagement and self-directed professional development. Seminar topics offer in-depth exploration of emerging or 'specialty' areas of occupational therapy practice or areas of significance to the interdisciplinary health care team.

## PHED 101 - Weight Training

1 cr.

Activity-based course providing a combination of skill development and instruction in weight training for physical fitness. Students will be educated in the core compound weight training exercises and the benefits of weight training. (Credits cannot be earned for both PHED 101 and KNES 101)

## PHED 412 - CPR/AED for the Professional Rescuer Instructor Trainer

2 cr.

The purpose of this course is to train instructor candidates to teach the American Red Cross CPR/AED for the Professional Rescuer course. This course prepares instructor candidates to use course materials, conduct training sessions and evaluate the progress of participants in a professional-level course.

## PHIL 120 - Introduction to Philosophy

3 cr.

The aim of this course is to awaken in the student an appreciation of the nature and method of philosophical inquiry through an examination of key texts that grapple with central questions in the history of philosophy.

## PHIL 120J - Introduction to Philosophy

3 cr.

The aim of this course is to awaken in the student an appreciation of the nature and method of philosophical inquiry through an examination of key texts that grapple with central questions in the history of philosophy.

## PHIL 210 - Ethics

3 cr.

(Prerequisite: PHIL 120)
An examination of moral issues through close readings of important historical texts such as the writings of Plato, Aristotle, Augustine, Aquinas, Kant or Mill. Themes will include happiness, virtue, the nature of justice, free choice, conscience, natural law and obligation, God and morality.

## PHIL 210J - Ethics

3 cr.

Through the presentation of a select history of moral philosophy, students are introduced to the philosophical discipline of ethics. Original texts of such thinkers as Plato, Aristotle, Epicurus, Epictetus, St. Augustine, Hobbes, Kant, Mill, and Nietzsche are enlisted to explore the most fundamental question in ethics, “What is the good life?”

## PHIL 211 - (P) Business Ethics

3 cr.

(Prerequisites: PHIL 120 and PHIL 210)
This course is an application of standard philosophical principles and theories to the critical study of questions, issues, and problems that surround the moral conduct of business. Recommended for business majors.

## PHIL 212 - (P) Medical Ethics

3 cr.

(Prerequisites: PHIL 120 and PHIL 210)
Considering nine ethical methodologies, this course views health care holistically in terms of human biological and psychological needs to show that ethical action must intend to satisfy them. Ethical principles are applied to such issues as professional communication, sexuality, procreation, experimentation, bodily modification, and death. Recommended for health care students.

## PHIL 213 - (P) Environmental Ethics

3 cr.

(Prerequisites: PHIL 120 and PHIL 210)
A study of various philosophical frameworks that allow us to think about environmental problems and our moral obligations. Includes a critical examination of nature and humans' relation to it and a study of specific environmental problems such as climate change, waste, agricultural and food ethics, and water pollution and policy.

## PHIL 214 - (P) Computers and Ethics

3 cr.

(Prerequisites: PHIL 120 and PHIL 210)
Ethical aspects of hacking, software, piracy, computer-aided decision making, protection of software by copyright, patent, trade secret laws, unauthorized use of computer resources, privacy and database security, program warranties and programmer responsibility, artificial intelligence, the interface between human and computer.

## PHIL 215 - (P) Logic

3 cr.

(Prerequisites: PHIL 120 and PHIL 210)
An introduction to logic as the science of argument including the nature of arguments in ordinary language, deduction and induction, truth and validity, definition, informal fallacies, categorical propositions and syllogisms, disjunctive and hypothetical syllogisms, enthymemes, and dilemmas.

## PHIL 217J - (FYW,FYOC) The Trivium

3 cr.

(Prerequisites: PHIL 120J and PHIL 210J)Via numerous writing projects and speeches and the analysis of select philosophical texts, this practicum in grammar, logic, and rhetoric will encourage the student to connect the basic elements of reason, discourse, and persuasion.

## PHIL 218 - (P,D) Feminism: Theory and Practice

3 cr.

(Prerequisites: PHIL 120 and PHIL 210)
What is feminism? What is the relationship between feminist theory and practice? This course focuses on these and related philosophical questions. Special attention will be paid to the interrelationship of gender, class and race. This course also fulfills a requirement in the Women's Studies Concentration.

## PHIL 220 - (P) Ancient Philosophy

3 cr.

(Prerequisites: PHIL 120 and PHIL 210)
The Pre-Socratics, Plato, Aristotle and their immediate successors. Special emphasis on the theory of knowledge, the metaphysics and philosophical anthropology of Plato and Aristotle.

## PHIL 221 - (P) Medieval Philosophy

3 cr.

(Prerequisites: PHIL 120 and PHIL 210)
A survey of philosophy in the European Middle Ages, including the connections between medieval philosophy and its classical and Christian sources; questions concerning nature/grace, reason/faith, theology/philosophy, and the nature and ethos of scholasticism.

## PHIL 222 - (P) Modern Philosophy I

3 cr.

(Prerequisites: PHIL 120 and PHIL 210)
Machiavelli and the break with the Ancients. Modern political thought and social contract. Hobbes with an appeal to the passions. Locke and theoretician of capitalism. Rousseau and the crisis of modern political thought. Foundations of modern epistemology. Descartes and the search for absolute certainty. Hume and empiricism.

## PHIL 223 - (P) Modern Philosophy II

3 cr.

(Prerequisites: PHIL 120 and PHIL 210)
The development of idealism in the thought of Kant, Fichte, Schelling, and Hegel, with its influence on Feuerbach, Marx, Engels, and Kierkegaard. Special consideration of dialectical thinking in its resolution of the antitheses of reality and appearance, freedom and necessity, infinite and finite, and faith and knowledge.

## PHIL 224 - (P) Foundations of Twentieth-Century Philosophy

3 cr.

(Prerequisites: PHIL 120 and PHIL 210)
A study of some of the key figures that have set the tone for the 20th-century philosophy. Buber, Marx, Kierkegaard, Hume and Russell are studied in detail.

## PHIL 225 - (P,D) Asian Philosophy

3 cr.

(Prerequisites: PHIL 120 and PHIL 210)

This course will introduce students to the various systems of Asian philosophy including Hinduism, Buddhism, Confucianism, Taoism and Shinto with special emphasis on the metaphysics, ethics and political philosophy of these systems.

## PHIL 226 - (P,D) Chinese Philosophy

3 cr.

(Prerequisites: PHIL 120 and PHIL 210)
An introduction to the classical Chinese understanding. The course examines Daoist teachings and vision, the thought of Confucius and Buddhism.

## PHIL 227 - (P) Political Philosophy

3 cr.

(Prerequisites: PHIL 120 and PHIL 210)
Examines Western political philosophy in the works of such philosophers as Plato, Aristotle, Locke, Marx, and Adorno. Topics include justice, freedom, equality, slavery, authority, consent, political economy, and the state.

## PHIL 229 - (P,D) Philosophy of Religion

3 cr.

(Prerequisites: PHIL 120 and PHIL 210)
An investigation of the main topics in philosophers' reflections on religion: arguments for the existence of God; meaningful statements about God; assessment of religious experience; notions of miracle, revelation, and immortality; the problem of evil; relations between religious faith and reason; religion and ethics. Readings from classical and contemporary authors.

## PHIL 230 - (P) German Philosophy

3 cr.

(Pre-requisites: PHIL 120 and PHIL 210)
This course is a survey of key themes, periods, and thinkers in German language philosophy, from modern to contemporary. Authors may include Kant, Hegel, Marx, Nietzsche, and others.

## PHIL 231 - (P,D) Philosophy of Women

3 cr.

(Prerequisites: PHIL 120 and PHIL 210)
This course reviews the philosophies of woman in western thought from Plato and Aristotle to Nietzsche, Schopenhauer, and Beauvoir. It concludes with an interdisciplinary selection of readings, to be addressed philosophically, on women in art, anthropology, literature, politics, theology, psychology, etc.

## PHIL 232 - (P,D) Women in Chinese and Western Philosophies

3 cr.

(Prerequisites: PHIL 120 and PHIL 210)
This course introduces philosophies of women in Chinese thought from the classics in Confucian, Daoist, Buddhist traditions to iconoclastic writings, and juxtaposes them with Western thought. This comparative approach seeks to gain better insight on gender dynamics across traditions, their cultural limitations and their potentials for transcendence beyond post-colonial critique.

## PHIL 232 (D,P) - Women in Chinese and Western Philosophies

3 cr.

(Prerequisite: PHIL 120)
This course introduces philosophies of women in Chinese thought from the classics in Confucian, Daoist, Buddhist traditions to iconoclastic writings, and juxtaposes them with Western thought. This comparative approach seeks to gain better insight on gender dynamics across traditions, their cultural limitations and their potentials for transcendence beyond post-colonial critique.

## PHIL 234 - (P) Existentialism

3 cr.

(Prerequisites: PHIL 120 and PHIL 210)
A critical study of selected works of Kierkegaard, Jaspers, Marcel, and Sartre, with special emphasis on the existentialist themes of selfhood, freedom, dread, responsibility, temporality, body, limited and unlimited knowledge and reality, and fidelity to community.

## PHIL 238 - (P) Wealth and the Human Good

3 cr.

(Prerequisites: PHIL 120 and PHIL 210)
What is wealth? Is wealth the key to happiness? Is it possible for individual human beings and human society to flourish without wealth? What does it mean to say that the measure of success in contemporary consumer society is wealth? These and other questions related to life in modern capitalist commercial society will be addressed in the course.

## PHIL 240 - (P) Logic and Written Discourse

3 cr.

(Prerequisites: PHIL 120 and PHIL 210)
PHIL 240 is to equip students with an understanding of the conditions that constitute good reasoning, and also the skill to construct good arguments in writing. It covers the following four areas: the nature of logical arguments, deduction (e.g., syllogism, propositional logic), induction (e.g., analogical reasoning, causal inference), and fallacies.

## PHIL 242 - (P,D) Latin American Thought

3 cr.

(Prerequisites: PHIL 120 and PHIL 210)
This course is a survey of the texts and ideas that help to define Latin America from pre-Conquest to the present day. There will be a special focus on the hermeneutical issue of encountering and understanding the other and the theme of philosophy being shaped by its cultural context.

## PHIL 250 - (P) Philosophy of Love

3 cr.

(Prerequisites: PHIL 120 and PHIL 210)
The purpose of this course is to develop a better understanding of the nature of love by engaging in a close reading of a range of philosophical texts in which different notions of love - modern romantic love, *eros, philia,* and *agape* - are developed and explored in detail. Offered alternate years.

## PHIL 295 - (P,D) Chinese Philosophy and Culture in Contemporary Taiwan

3 cr.

(Prerequisites: PHIL 120 and PHIL 210 unless a waiver for special reasons is approved by the instructor)
This is a travel course to Taiwan that explores Chinese philosophy and culture with Taiwanese characteristics. It aims to expand students' philosophical imagination through a *real* cultural encounter with the East. The course will include: (1) lectures and discussion on Confucian, Taoist, and Buddhist philosophy and culture and its development in Taiwan, (2) guest speakers, (3)

field study, (4) hands-on cultural lessons, and (5) cultural excursions. The selection of sites will be based on what's available and what enhances the lectures and discussions delivered in class. Depending on availability, overnight stay at a Buddhist monastery and service work at NGO/NPOs may be arranged. *Travel expenses and material fees apply.*

## PHIL 305 - (P) Symbolic Logic

3 cr.

(Prerequisites PHIL 120 and PHIL 210)
A study of symbolic logic in the larger context of philosophical analysis, this course covers the propositional calculus, quantification theory, the logic of relations and identity, modal logic, and, if time permits, some aspects of deontic, doxastic, and fuzzy logic. Though not a prerequisite, successful completion of PHIL 215 - (P) Logic is recommended.

## PHIL 306 - (P) Philosophy of Education

3 cr.

(Prerequisites: PHIL 120 and PHIL 210)
An examination of representative modern systemic philosophies of education with a critical analysis of the answers that each system of philosophy provides to the important questions concerning the nature of knowledge, value, man and society.

## PHIL 310 - (P) Epistemology

3 cr.

(Prerequisites: PHIL 120 and PHIL 210)
An introduction to the theory of knowledge ranging from ancient to contemporary philosophy. Topics include sensation, perception, memory, recollection, reason, truth, science and language.

## PHIL 311 - (P) Metaphysics

3 cr.

(Prerequisites: PHIL 120 and PHIL 210)
A textual inquiry into the adequacy of philosophers' answer to the fundamental question, "What is?" Special attention will be given to Plato, Aristotle, Aquinas, Kant's critical philosophy and the issues of nature and history.

## PHIL 311J - Metaphysics

3 cr.

(Prerequisites: PHIL 120J and PHIL 210J)
A textual inquiry into the adequacy of philosophical responses to the fundamental question, "What Is?" Special attention will be given to Aristotle, Hume, Kant, and Nietzsche.

## PHIL 312 - (P) Modern Philosophy III

3 cr.

(Prerequisites: PHIL 120 and PHIL 210)
A study of 19th-century European philosophers such as Hegel, Nietzsche, Kierkegaard and Marx. We will consider the place of philosophy in history and society, the theme of conflict in life and thought, and the simultaneous spread and decay of humanism in Europe.

## PHIL 313 - (P) Philosophy and Friendship

3 cr.

(Prerequisites: PHIL 120 and PHIL 210)
An historical survey of primary texts which discuss friendship. Readings in the course include authors of the ancient, medieval, modern and contemporary periods in the history of philosophy. Some of these authors are, Xenophon, Plato, Aristotle, Cicero, Augustine, de Montaigne, Bacon, Kant, Emerson, Nietzsche, Gray, Arendt and Sartre.

## PHIL 314 - (P,D) Philosophy and the City

3 cr.

(Prerequisites: PHIL 120 and PHIL 210)
This course explores philosophical issues connected to urban and public policy. Students will analyze the relationship between philosophy and public life and will develop a deeper understanding of their own relation to the city and their roles as citizens.

## PHIL 315 - (P) Twentieth-Century Political Philosophy

3 cr.

(Prerequisites: PHIL 120 and PHIL 210)
This course is a survey of recent social and political theory dealing with issues such as human rights, ethnicity in the nation-state, bio-environmental and security challenges to political sovereignty, and the implications of globalization for technology, the function of media and the role of the market.

## PHIL 316 - (P) American Perspectives on Health-Care Ethics

3 cr.

(Prerequisites: PHIL 120 and PHIL 210)
This course will consider basic ethical issues in the practice and distribution of health care in the United States. Topics covered will include the physician-patient relationship, clinical issues such as transplants or end-of-life concerns, the nature of professionalism, just distribution, ethics in health-care institutions, and biomedical research. Recommended for those interested in the health-care professions.

## PHIL 317 - (P) American Philosophy

3 cr.

(Pre-requisite: PHIL 120 and PHIL 210)
This course surveys currents of philosophy rooted in North America, with emphasis on Transcendentalism, Pragmatism, and Native American Thought. Authors may include Emerson, Pierce, James, Dewey, and Black Elk.

## PHIL 318 - (P) Sex, Love, and God: Augustine and His Philosophy

3 cr.

(Prerequisites: PHIL 120 and PHIL 210 unless a waiver for special reasons is approved by the instructor)
St. Augustine of Hippo is regarded as one of the most influential figures in the Western history of philosophy. His influence reaches far beyond the Christian tradition and has impacted the thinking of such noted thinkers as Rene Descartes, Martin Heidegger, Hannah Arendt, Jacques Derrida, Jean-Luc Marion, and others. This course will examine some central themes of Augustine's thought while paying special attention to his struggle as a young man riddled with existential anxiety and how he matured as a thinker and a person in his understanding of faith and reason, the meaning of human community and its relation to God, and the tension and the complexity surrounding the issues of embodiment, sexuality, and the sexes. Arendt's existential interpretation of Augustine and the contemporary feminist appropriations of his view on women and sexuality will also be explored.

## PHIL 319 - (P) Philosophy of Law

3 cr.

(Prerequisites: PHIL 120 and PHIL 210)
A study of the various justifications of law and their implications. Special consideration will be given to the problems of civil disobedience and the force of law in private institutions.

## PHIL 320 - (P) Aesthetics

3 cr.

(Prerequisites: PHIL 120 and PHIL 210)
The main theories of the essential character of beauty or art, how they are judged, how they are related to the mind and the whole person, how they are created and how this creativity expresses a commitment to oneself and to the world. (May be used for Art History minor.)

## PHIL 321 - (P) Great Books in Philosophy

3 cr.

(Prerequisites: PHIL 120 and PHIL 210)
This course consists of a careful examination of an important text in the history of philosophy. Attention will also be paid to the selected text's historical significance as well as to its relevance to contemporary philosophical debates. The text examined may vary from semester to semester, and may be drawn from such authors as Plato, Aristotle, Cicero, Augustine, Aquinas, Hume, Kant, Mill, Kierkegarde, Nietzsche, Moore, Ross, Ayer, Stevenson, Rawls, Smart, Williams, Finnis, Grisez, and MacIntyre. This course may be repeated by students as the text changes from semester to semester.

## PHIL 322J - Philosophy of Conscience

3 cr.

(Prerequisites: PHIL 120J and PHIL 210J)
Studies the role of conscience in moral judgment and considers its metaphorical and narrative elements. Explores the difference between clarity and community, truth and wisdom, principle and prudence as we study possible links between conscience, reason, eros, imagination and education in some of the works of Plato, Kant and Marx.

## PHIL 323 - (P) Natural Law: True Guide or Grave Error?

3 cr.

(Formerly PHIL 433) (Prerequisites: PHIL 120 and PHIL 210)
This course will consist of a careful examination of Natural Law, perhaps the most enduring theory in the history of moral thought. The arguments of both its proponents and its critics will be examined as we consider whether objective moral truths are discernable in the nature of things and, if so, how these truths might be action-guiding for us today.

## PHIL 325 - (P) Literature and Ethics

3 cr.

(Prerequisites: PHIL 120 and PHIL 210)
This course examines the "old quarrel between philosophy and literature," the dispute between Plato and Ancient Athenian poets regarding the best and truest source of moral knowledge, and examines the impact of this quarrel on contemporary moral theory and practice.

## PHIL 326 - (P,D) Advanced Topics in Feminist Philosophy

3 cr.

(Prerequisites: PHIL 120 and PHIL 210 and PHIL 218, other Women's Studies courses, or permission of instructor)
This course will explore a special topic in feminist philosophy. Course may be repeated as topics vary. Possible topics might include: feminist aesthetics, issues of equality, theories of the body. This course is cross-listed with Women's Studies.

## PHIL 327 - Readings in the Later Plato

3 cr.

(Prerequisites: PHIL 120 and PHIL 210)
A survey and contextualization of the dialogues usually said to be "Later" in Plato's intellectual development will precede a textually based examination of those dialogues in which Plato's dialectic turns on the "concept" of difference. Thaetetus, Sophist, and Parmenides will be emphasized.

## PHIL 328 - (P) Philosophy of Literature

3 cr.

(Prerequisites: PHIL 120 and PHIL 210)
This course examines the nature of literature, and its relation to philosophy and political life. Students will study both classical texts on literature and contemporary Anglo-American examinations and appropriations of them, as well as recent European literary theory.

## PHIL 329 - (P) Advanced Topics in Biomedical Ethics

3 cr.

(Prerequisites: PHIL 120 and PHIL 210 and one of the following: PHIL 212 or PHIL 316, or science/allied health major, or permission of instructor)
This course will focus narrowly upon an issue (or a set of related issues) in biomedical research which generates significant moral concern. Topics will vary, but may include embryo-destructive research; cloning and donor siblings; genetic testing and eugenics; genetic enhancement; and the production of human/non-human chimeras. Typically the course will also consider the nature and purpose of biomedical research and medicine.

## PHIL 330 - (P) Philosophy of Crowds and Violence

3 cr.

(Prerequisites: PHIL 120 and PHIL 210)
At trial Socrates asserts 'friendship with wisdom' in the face of an angry crowd, making the question of crowds and violence a founding one for philosophy. PHIL 330 revisits this question after a century of novel self-assertions by crowds as agents of history armed, finally, with weaponized social media.

## PHIL 331 - (P) Feminist Philosophy of Science

3 cr.

(Prerequisites: PHIL 120 and PHIL 210)
A feminist critique of both the alleged value-free character of modern science and the positivist philosophy of science supporting this view. The course thus focuses on feminist arguments for the contextual, i.e., social, political and economic, nature of science and the resulting need to rethink such key concepts as objectivity, evidence, and truth in light of androcentrism and gender bias. Consideration is also given to critical responses from feminist and nonfeminist defenders of more traditional accounts of science.

## PHIL 333 - (P) The Seven Deadly Sins

3 cr.

(Prerequisites: PHIL 120 and PHIL 210)
A conceptual and moral-psychological analysis of pride, envy, greed, anger, lust, gluttony and sloth. The works of such philosophers from the history of philosophy as Aristotle, Aquinas, and Spinoza will be considered as well as contemporary thinkers in philosophy, theology, psychology, and sociology.

## PHIL 334 - (P) Hannah Arendt: Human Existence

3 cr.

(Prerequisites: PHIL 120 and PHIL 210)
Examines Hannah Arendt's twentieth-century political thought in the broader context of her philosophy of human existence. Topics include history, revolution, totalitarianism, technology, thinking, conscience, and the banality of evil.

## PHIL 335 - (P) Philosophy of Interpretation

3 cr.

(Prerequisites: PHIL 120 and PHIL 210)
This course explores twentieth century theory of interpretation or hermeneutics. It deals with the interpretation of texts and with methods of understanding that allow for the emergence of meaning. It examines the philosophies of such thinkers as Heidegger, Gadamer, Derrida, Ricoeur, and Kearney.

## PHIL 336 - (P) Religion After God

3 cr.

(Prerequisites: PHIL 120 and PHIL 210)
This course considers the question of the possibility of religious experience and the idea of God as it is explored in contemporary phenomenology and hermeneutics, in the wake of the "death of God" and the "demise of metaphysics." It studies the thought of such thinkers as Ricoeur, Heidegger, Levinas, Marion, Chretien, and Henry.

## PHIL 337 - (P) The Art of Living

3 cr.

Prerequisites: (PHIL 120 and PHIL 210)
A philosophy survey course in which issues of perennial and contemporary human concern are addressed by way of a study of contemporary thinkers and texts that bring the History of Philosophy into conversation with and to bear on analyses of such matters as, forgiveness, commitment, illness, deception, love, work, hope, distraction, money, fame, well-being, personal identity, death, science and sport.

## PHIL 339 - (P) Philosophy of the Person

3 cr.

(Prerequisites: PHIL 120 and PHIL 210)
This course will investigate the nature of the person and conditions for personhood. Such concepts as human being, soul, self, ego, consciousness, substance, mind, rationality, intentionality, sentience and reciprocity will be examined. Questions about self-same personal identity, divine personhood and the personhood of animals will be addressed.

## PHIL 340 - (P,D) Philosophy and Judaism

3 cr.

(Prerequisites: PHIL 120 and PHIL 210)
A study of several Jewish thinkers who lived and wrote in the context of two "endings": the end of European Jewry in the Holocaust and the end of the Jewish Diaspora through the creation of Israel.

## PHIL 341J - The Subject & Medieval Thought

3 cr.

(Prerequisites: PHIL 120J and PHIL 210J)
Using Umberto Eco's novel *The Name of the Rose* as a guide, along with primary medieval texts, this course investigates the rise of the subject as the focal point of medieval metaphysics, epistemology, and political theory. We will trace the historical development of our modern notion of the subject and subjectivity as rooted in medieval debates.

## PHIL 350 - (P) Science, God, Philosophy

3 cr.

(Prerequisites: PHIL 120 and PHIL 210)
The purpose of this course is to engage in a critical examination of a recent movement in philosophy known as "naturalism." Naturalism appeals to the natural sciences to reject non-natural or transcendent entities such as God. Readings include works by contemporary naturalists, but then also those, such as Alvin Plantinga, who reject naturalism on philosophical grounds. Offered alternate years.

## PHIL 401J - Philosophy, Politics, Economics

3 cr.

(Prerequisites: PHIL 120J)
This course explores the philosophical underpinnings of and relationship between politics (democracy) and economics (free-market capitalism) and uses this understanding to reflect on what it means to be a citizen of the United States and the world as well as a man or woman for and with others.

## PHIL 410 - (P) Philosophy of Culture

3 cr.

(Prerequisites: PHIL 120 and PHIL 210)
Examines the meaning of the term "culture." Explores the notions of civilization and barbarism, common principles in cultural development, and the interaction of such cultural forces as myth, magic, language, art, religion, science, and technology. Special attention will be given to the question of "progress" and "regress" in culture.

## PHIL 411 - (P) Thomas Aquinas: Philosophy and Controversy

3 cr.

(Prerequisites: PHIL 120 and PHIL 210)
PHIL 411 is a contextual study of Thomas Aquinas' philosophy, a great thinker in the 13th century. Selections from his metaphysics, ethics, and anthropology will be examined. His dispute with the Averroists on the status of the intellect, the condemnation of some propositions of his in 1277, and his later canonization in 1323 will also be discussed.

## PHIL 412J - (P) Art and Metaphysics

3 cr.

(Prerequisites: PHIL 120J and PHIL 210J)
The course utilizes the work of Martin Heidegger as well as several contemporary American novels to explore the philosophical problem of nihilism as it manifests itself today in the relationship between modern technology and art. Special attention is given to modern architecture.

## PHIL 413J - The End of Philosophy

3 cr.

(Prerequisites: PHIL 120J and PHIL 210J) The title of this course refers to its three objectives. These are: to clarify philosophy's purpose or goal, (2) to consider the ground and limit of philosophy, and (3) to interpret contemporary anxiety about the end of the philosophical tradition.

## PHIL 414 - (D,P) Philosophy of Emmanuel Levinas

3 cr.

(Prerequisites: PHIL 120 and PHIL 210)
This course is a study of the twentieth-century Jewish philosopher, Emmanuel Levinas. We will focus on Levinas' theory of ethical experience, an account that takes its categories from both Greek and Hebrew sources, thereby enriching the dialogue between Jewish and Christian traditions in philosophy.

## PHIL 415 - (P,EPW) Nietzsche

3 cr.

(Prerequisites: PHIL 120 and PHIL 210)
This course is an in-depth study of the philosophy of Friedrich Nietzsche. It treats a number of his works in chronological order and delves into his views on ontology, epistemology, God, time, value, and morality.

## PHIL 418 - (P) Phenomenology

3 cr.

(Prerequisites: PHIL 120 and PHIL 210)
An introduction to this 20th-century European movement through selected works of Husserl, Heidegger, Sartre, and Merleau-Ponty. Topics include the nature of the self, lived experience, history, social reality, sense perception, technology and science, space and time, the lived body, and the theory of intentionality.

## PHIL 419 - (P,D) Philosophy East and West

3 cr.

(Prerequisites: PHIL 120 and PHIL 210)
This course brings non-Western philosophy and philosophers into a dialogue with Western philosophy and philosophers on major philosophical topics.

## PHIL 420 - (P) Philosophy of Rhetoric

3 cr.

(Prerequisites: PHIL 120 and PHIL 210)
A systematic investigation of the form, meaning and influence of rhetoric. Explores the relationships between topic and metaphor, logic and narration, ethos and logos, conscience and persuasion. Special attention is given to the various relationships between rhetoric and philosophy.

## PHIL 425 - (P) Postmodern Philosophy

3 cr.

(Prerequisites: PHIL 120 and PHIL 210)
An examination of the transition from modernist culture and thought to postmodernist culture and thought. Derrida's method of deconstruction will serve as the paradigm example of postmodernism. Recommended for those interested especially in literature and fine arts.

## PHIL 430 - (P) Philosophy of the Social and Behavioral Sciences

3 cr.

(Prerequisites: PHIL 120 and PHIL 210)

The goal of the course is to encourage students to think philosophically about issues raised in social scientific studies, especially regarding the following: (1) the problem of cross-cultural understanding and interpretation, (2) the difficulties of research design and methodology, and (3) the relationship between social science, ethics, and policy making.

## PHIL 431 - (P) Philosophy of Science

3 cr.

(Prerequisites: PHIL 120 and PHIL 210)
Examines the metaphysical foundations of modern science, theories of scientific method and change, and the epistemological importance of scientific instrumentation. Special attention is given to astronomy and theories of evolution.

## PHIL 434 - (P) Issues in Philosophy and Theology

3 cr.

(Prerequisites: PHIL 120 and PHIL 210)
This course will investigate certain modern and contemporary problems in the relationship between philosophy and theology. In particular, it will examine the ways in which philosophical discussions (both specific arguments and general positions) influence theological discussions, as evidence of the suggestion that philosophy "gives voice" to theology.

## PHIL 435J - Philosophy of Self and Other

3 cr.

(Prerequisites: PHIL 120 and PHIL 210)
This course examines the way in which contemporary philosophy challenges modern conceptions of subjectivity by developing more fluid versions of the self. It also explores the emphasis in postmodern philosophy on the "other" ("alterity"), both human and divine, dealing with such themes as "the call," the stranger, hospitality, and justice.

## PHYS 100 - (E) History of Science and Technology

3 cr.

The evolution of scientific enquiry in human history. Focus on key concepts and laws of nature that have enabled humans to develop modern technological societies. A major theme will be that science arises from traditions that are spiritual as well as technical, with the spiritual tradition being explored from the perspective of the life and traditions of the Catholic Church.

## PHYS 101 - (E) The Solar System

3 cr.

The study of the solar system, its origin, its evolution, its fate. Study of the planets, asteroids, meteors and comets. Theories about the cosmos from antiquity to the modern age.

## PHYS 102 - (E) Earth Science

3 cr.

Selected topics from geology and meteorology, weather forecasting, ground and surface water, mountain building, volcanoes, earthquakes, plate tectonics, and oceanography.

## PHYS 103 - (E) Seeing the Light

3 cr.

The physics of light and vision. Includes topics such as biophysics of the human eye, the visual system, color vision, binocular vision, and the wave nature of light.

## PHYS 104 - (E) Introduction to Consumer Technology

3 cr.

Every day we listen to the radio or compact-disc recordings, watch TV, use photocopiers and fax machines without really knowing how they work. Designed to provide the scientific background to understand the operation of common communication systems and electronic equipment.

## PHYS 105 - (E) Mind and the Evolutionary Universe

3 cr.

The study of the universe from the ancient times to the present. The ideas and approaches of various peoples will be discussed, from the era of the powerful myths to the scientific approach of the Greeks, up to modern times, focusing on man and the evolving universe, in a historical and modern perspective. The role and the involvement of the Church in scientific thinking will be stressed as well.

## PHYS 106 - (E) Energy and the Environment

3 cr.

Focus on various aspects of man's use of energy and changes in the environment that accompany that use. Sources of energy; the nature of the present energy and environmental crises and possible solutions; energy requirements of the future; conservation; and alternate energy sources.

## PHYS 107 - (E) "Hands-On" Physics

3 cr.

An introduction to the scientific method using "hands-on" laboratory to illustrate various physical phenomena. The impact of science and the scientific method on important social, political and ethical issues will be discussed.

## PHYS 108 - (E) New York Times Physics

3 cr.

Every day we are bombarded with information regarding the impact of technology on our lives. Using *The New York Times*, and other popular sources as a guide, students will explore the scientific and technological concepts of our modern world. Topics will vary weekly.

## PHYS 109 - (E) The Conscious Universe

3 cr.

A course that discusses and concentrates on matters like waves, quanta and quantum theory. Science will be viewed as a rational enterprise committed to obtaining knowledge about the actual character of physical reality and the character of the physical law.

## PHYS 110 - Meteorology

3 cr.

Focus on the basic physical and chemical phenomena involved in the determination of climate and weather, enabling the student to comprehend weather events, patterns, and forecasting. Topics include: atmosphere composition and structure, moisture and precipitation, cloud formation, pressure and wind, cyclones, circulation of atmosphere, air masses and fronts, and forecasting.

## PHYS 111 - (E) The Joy of Physics on a Bicycle

3 cr.

(Pre-Requisite: One year of high school algebra and a little trigonometry and geometry.)
This course, of basic physical science, is designed to satisfy the natural science requirement. The objective is to use the fun and joy of the bicycle to understand the fun and joy of physics. We will examine physics principles such as concepts of motion, forces, gravity, work, energy, power, heat, conservation, and explore their applications to the bicycle and cyclist.

## PHYS 112 - (E) Natural and Manmade Disasters

3 cr.

This introductory-level science course for non-science majors covers earthquakes, tsunamis, floods, volcanoes, landslides, fire, comet/meteor impacts and nuclear accidents. The conditions necessary for the disasters, the forces that are unleashed, and society's role in them are examined. (Not for major elective credit in Physics, Biophysics or Electrical Engineering).

## PHYS 113 - (E) The Science of Light and Photography

3 cr.

An introductory-level science course intended for non-science majors covers the basic science of light and its application in the technology of photography. Topics range from a historical overview of early photographic methods to modern digital cameras. The scientific principles of light waves and rays, the optics of lenses, the process involved in picture taking and the formation and development of the image. Topics include the nature of light, laws of optics, development of black and white and color images, and digital electronics for photographic capture and display.

## PHYS 114 - Solar Electricity

3 cr.

The history, physics and engineering of obtaining energy from the sun, with special attention to environmental impact of Photovoltaic (PV) technology. Topics include: environmental protection, economic growth, job creation, diversity of supply, rapid deployment, technology transfer and innovation with a free, abundant and inexhaustible fuel source.

## PHYS 115 - (E) It's Only Rocket Science

3 cr.

(Prerequisite: High school algebra, geometry, and very basic trigonometry)

Covering topics from rocket launches and propulsion to spacecraft navigation and orbit, this course will demystify rocket science by explaining an otherwise complicated science in common language. Through these topics students will examine the physical concepts of gravitation, momentum, energy, basic force laws, and motion.

## PHYS 120/PHYS 120L - (E) General Physics I

4 cr.

(Prerequisites: MATH 109 or a math placement PT score of 14 or higher)
Emphasizes quantitative and conceptual understanding of the topics of introductory physics developed without use of calculus. Topics include vectors, kinematics, force and the laws of motion, momentum, work, energy, rotational equilibrium, rotational dynamics, solids and fluids, periodic motion, wave characteristics, sound, and thermodynamics. Three hours lecture and two hours laboratory.

## PHYS 121/PHYS 121L - (E) General Physics II

4 cr.

(Prerequisite: PHYS 120/PHYS 120L)
Emphasizes quantitative and conceptual understanding of the topics of introductory physics developed without use of calculus. Topics include electric forces and electric fields, electric potential, capacitance, current, resistance, dc circuits, magnetic field and magnetic force, inductance, induced emf, electromagnetic waves, geometrical and physical optics, optical instruments, and an introduction to modern physics. Three hours lecture and two hours laboratory.

## PHYS 140/PHYS 140L - (E) Elements of Physics I

4 cr.

(Co-requisite: MATH 114)
Calculus-based introduction to physics covering linear and rational kinematics, Newton's laws, conservation of momentum and energy, the work-energy theorem, gravitation, oscillations, and waves. Three hours lecture and two hours laboratory.

## PHYS 141/PHYS 141L - (E) Elements of Physics II

4 cr.

(Prerequisite: PHYS 140/PHYS 140L, Co-requisite MATH 221)
Calculus-based introduction to physics covering waves of sound and light, superposition, interference, geometrical and ray optics, electrostatics, electric field, electric potential, current, capacitance, resistance, circuits, magnetic field, magnetic force, and induced emf. Three hours lecture and two hours laboratory.

## PHYS 142 - Elements of Physics III

3 cr.

(Prerequisites: PHYS 141/PHYS 141L)
Calculus-based introduction to physics covering fluid dynamics, temperature, the laws of thermodynamics, geometrical and physical optics, and relativity. Three hours lecture

## PHYS 150 - (FYOC,FYDT) Foundations of Physics and Engineering

3 cr.

This physics and engineering cornerstone course will cover foundational topics including science literacy, effective laboratory investigations, basic programming skills, data analyses, micro-processing, and professional ethical standards. After completing the course, the student will be proficient in oral communication skills and the use of digital technology through assignments and projects relevant to the physicist and engineer. (Students may not receive credit for both PHYS 150 and ENGR 150.)

## PHYS 201 - (E) Stellar Evolution

3 cr.

An introduction to astrophysics for non-science students. Topics include the sun, stars and the universe, including evolution, birth, lifetimes an deaths; remnants of stars and exotic entities such as neutron stars, quasars, and black holes; galaxies and galaxy formations; the expanding universe; red shifts and cosmological principles; and grand unified theories.

## PHYS 204 - (E) Information Technology

3 cr.

Lectures and demonstrations are designed to describe and explain the basics of information technology and engineering for students outside the technical disciplines. Data representation, graphics and visual information, data compression, data transmission and network technology.

## PHYS 255 - (E) Nanotechnology: Physics of Small Systems

3 cr.

(Prerequisites: PHYS 121/PHYS 121L and MATH 114)
Understanding small systems: Nano-scale physics and applications: nanomaterials, nanomechanics, nanophotonics, nano thermodynamics, nano-biotech. Transport process in nano systems.

## PHYS 260L - Electronics for Physicists

1 cr.

(Formerly PHYS 250L) (Prerequisites: PHYS 140L, PHYS 141L)
In this laboratory course, students will learn to analyze and construct basic circuits needed for data acquisition and signal processing. Topics covered are design and prototype simple analog and digital circuits that can be used for data acquisition, basic noise reduction techniques, including band pass filters and lock-in detection, amplifiers, oscillators, sensors, and optoelectronics.

## PHYS 270/PHYS 270L - (EPW: Lab only) Elements of Modern Physics

4 cr.

(Prerequisites: PHYS 141/PHYS 141L, MATH 114)
Introductory modern Physics course for Physics and Engineering majors; also recommended for other science majors. Review of classical physics; special theory of relativity; atomic theory of hydrogen from Bohr to Schrodinger; multielectron atoms and the periodic table; introduction to nuclear physics. Lab fulfills a writing intensive requirement (W). Three hours lecture and two hours laboratory.

## PHYS 333 - Experimental Methods in Physics

3 cr.

(Prerequisite: PHYS 270/PHYS 270L)
Hands-on experience with experiments and experimental techniques in contemporary physics. Student will select up to 4 experiments that cover topics such as gamma ray spectroscopy, the Zeeman effect, interferometry, scattering of light, nuclear magnetic resonance, neutron activation, ultrasonics and Fourier spectroscopy.

## PHYS 350 - Applied and Engineering Mathematics

3 cr.

(Prerequisites: MATH 222, PHYS 141/PHYS 141L)
This course derives and solves first and second-order ordinary and partial differential equations as applied to physical systems. Fourier series, Fourier transforms, and Laplace transforms are included; as well as, special functions, such as Bessel and Legendre. MAPLE and MATHEMATICA software are utilized. Three hours lecture. (Credit cannot be earned for PHYS 350 and ENGR 350)

## PHYS 351 - Mathematical Physics II

3 cr.

This course includes the following applied mathematical approaches and applications: functions of complex variables, theory of residues, conformational mapping, Fourier, Laplace, Hilbert and Wavelet transforms, numerical solutions to differential equations, and Green's functions. MAPLE and MATHEMATICA software are utilized.

## PHYS 352 - Statistical and Engineering Thermodynamics

3 cr.

(Prerequisite: PHYS 270/PHYS 270L or PHYS 142)
Derivation of Thermodynamics from probability theory and atomic physics; Laws of Thermodynamics; Maxwell relations; chemical potential and phase changes; refrigerators and heat pumps; theory of gasses and theory of solids. Special topics dependent upon interests of majors represented. (Credit cannot be earned for PHYS 352 and ENGR 352.) Three hours lecture.

## PHYS 360 - Introductory Astrophysics

3 cr.

(Prerequisite: PHYS 270/PHYS 270L)
This course is an advanced survey of modern astrophysics theory and practice, covering the dynamics and formation of the solar system, the formation and evolution of stars, the structure of galaxies, and the makeup of the observable universe.

## PHYS 361 - Elements of Quantum Computation and Quantum Information

3 cr.

(Prerequisites: MATH 222 and PHYS 141)
This course aims to provide students with an introduction to quantum computation, quantum information, and quantum algorithms. Topics include bits and qubits, quantum circuits, Deutsch-Jozsa's, Grover's and Shor's algorithms, quantum noise, quantum error-correction, entropy and information. Three hours lecture.

## PHYS 365 - Introduction to Solid State Physics

3 cr.

(Prerequisites: PHYS 270 or ENGR 252 (EE majors), ENGR 350)
A physics course designed for senior Physics and Electrical Engineering majors and focusing on the Quantum Theory of solids including: fundamentals of crystals, wave diffraction in crystals, reciprocal lattices, crystal binding, phonons and phonon scattering, free-electron Fermi gases, energy bands, periodic potentials, semiconductor theory, superconductors, quantum theory of diamagnetism, optical processes in semiconductors and optoelectronic devices, quantum mechanics and electronic structure of graphene, graphene-based nanostructures, quantum electronic devices. (Credits may not be earned for both PHYS 365 and ENGR 365.)

## PHYS 371 - Advanced Mechanics

3 cr.

(Pre- or co-requisite: MATH 341)
Comprehensive course in Newtonian dynamics, variational principles, Lagrange’s and Hamilton’s equations; theory of small oscillations and specialized nonlinear differential equations in mechanical systems.

## PHYS 372 - Quantum Mechanics

3 cr.

(Prerequisites: PHYS 270/PHYS 270L, MATH 222)
Intensive and quantitative treatment of quantum mechanics. Wave function; solutions of the Schödinger equation in one-dimension; formalism of quantum mechanics; statistical interpretation; problems in three-dimensions; angular momentum; spin; identical particle systems; quantum statistics; time-independent perturbation theory; two-level systems; emission and absorption. Three hours lecture.

## PHYS 404 - Introduction to Nuclear and Particle Physics

3 cr.

(Prerequisites: PHYS 270/PHYS 270L, MATH 222, PHYS 372)
An introduction to nuclear and particle physics. Topics to be covered in nuclear physics include the size and shape of nuclei, the liquid drop model, radioactivity, scattering, and the weak interaction. Topics to be covered in particle physics include the quark model of nucleons, and Feynman diagrams.

## PHYS 447 - Electromagnetics I

3 cr.

(Prerequisite: PHYS 270/PHYS 270L; pre- or co-requisite: PHYS 350)
Vector calculus, electrostatics (Coulomb's law, E-fields), Gauss's law, Maxwell equations, Gauss's law, potentials, electric dipoles, Energy density in electrostatic fields, Electric fields in material space, dielectrics; Boundary conditions, Poisson's, Laplace's equations; Uniqueness theorem, resistance and capacitance, method of images, Magnetostatics, Biot-Savart's Law, magnetic forces, vector potentials, magnetic flux density. (Credit cannot be earned for PHYS 447 and EE 447.)

## PHYS 448 - Electromagnetics II

3 cr.

(Prerequisite: PHYS 447 or EE 447)
Magnetic materials, Ampere's law, Faraday's law, vector potentials, Magnetic forces, Magnetic dipoles, Magnetization, Inductors, Magnetic energy, Magnetic circuits; Maxwell's equations, electromagnetic wave propagation, plane waves, power propagation; Reflection/Transmission/Polarization; Transmission lines; Waveguides, resonators; Radiation, Hertzian dipoles, antennas; Relativistic electromagnetics, Maxwell's equations unified. (Credit cannot be earned for PHYS 448 and EE 448.)

## PHYS 448L - Electromagnetics Design Laboratory

1 cr.

(Co-requisite: PHYS 448)
Laboratory designed to emphasis and reinforce the experimental basis of electromagnetism. Multi-week projects require the student to perform experiments that measure fundamental electrical constants, the electrical and magnetic properties of matter, and the properties of electromagnetic waves. Two hours laboratory. (Credit cannot be earned for PHYS 448L and EE 448L)

## PHYS 460 - Non-linear Systems and Chaos

3 cr.

An introduction to qualitative and geometric methods to study nonlinear ordinary differential equations and discrete time maps. Topics include first-order differential equations and their bifurcations, phase plane analysis, limit cycles, Lorenz equations, chaos, iterated maps, period doubling, renormalization, fractals, and strange attractors.

## PHYS 473 - Optics

3 cr.

(Prerequisites: PHYS 270/PHYS 270L, MATH 341 or PHYS 350)
An introduction to the principles of geometrical, physical and quantum optics. Topics to be covered include ray and wave optics, superposition, diffraction, interference, polarization, Fourier methods, and coherence theory. Practical devices such as photo detectors and light sources will also be discussed. Three hours lecture.

## PHYS 473L - Optics

1 cr.

Laboratory designed to emphasize and reinforce the key concepts in optics. Multi-week projects require the student to perform experiments in a range of topics including interferometry, spatial filtering, interference and diffraction, polarization, scattering, and holography. Two hour laboratory.

## PHYS 474 - Acoustics

3 cr.

(Prerequisite: PHYS 350)
This course covers the fundamentals of vibration as applied to one-, two- and three-dimensional systems of solids and fluids. Reflection, transmission, absorption, attenuation, and radiation are covered. Resonators and wave guides and filters are studied along with the fundamentals of transducers. Acoustical issues in hearing are covered, time permitting.

## PHYS 475 - Digital Image Processing

3 cr.

(Prerequisites: PHYS 141/PHYS 141L or PHYS 121/PHYS 121L and CMPS 134)
Digital image processing is a modern scientific and engineering technique employed to enhance and extract details of images in diverse fields such as medicine, military, industry, and artistic photography. This course will make use of the Matlab programming package for algorithmic development. The student will develop algorithms and implement code for automated image analysis.

(Credits may not be earned for both PHYS 475 and EE 475.) (Offered alternate years.)

## PHYS 493 - Undergraduate Physics Research I

1 cr.

Undergraduate Physics Research I, the first in a two semester sequence is a one hour seminar intended for students doing research with a faculty member in the Physics and Engineering department. Students will learn data analysis, physics literature searches and time management. A written progress report is required at the end of the semester.

## PHYS 494 - (EPW) Undergraduate Physics Research II

1 cr.

(Prerequisite: PHYS 493)
Undergraduate Physics Research II, the second in a 2 semester sequence, is a one hour seminar intended for students doing research with a faculty member in the Physics and Engineering department. Students will continue their research project, and weekly meetings will concentrate on time management, data analysis and thesis writing. The thesis must be defended at the end of the semester.

## PORT 110 - (CF) Intensive Beginning Portuguese

4 cr.

A video-based introduction to Brazilian Portuguese, this course covers basic grammar and vocabulary needed for listening, speaking, reading, and writing Portuguese. Students will also develop some cultural understanding of Brazil, Portugal, and other Lusophone countries. Meets four days a week. Taught in Portuguese. *Includes activities inside and/or outside the classroom that involve Language Learning Center (language lab) resources.* Offered fall only, alternate years.

## PORT 210 - (CF,D) Intensive Intermediate Portuguese

4 cr.

(Prerequisite: PORT 110 or equivalent)
A continuation of elementary Portuguese. Students will refine, through oral and written activities, literary and other readings, and video, and film, the skills learned in PORT 110. Cultural knowledge of the Lusophone world will also be further developed. Meets four days a week. Taught in Portuguese. *Includes activities inside and/or outside the classroom that involve Language Learning Center (language lab) resources.* Offered spring only, alternate years.

## PS 110 - (FYOC,FYDT) Scranton and the World

3 cr.

Introduces students to the scope (what we study) and methods (how we study) of political science through an analysis of major sociopolitical issues, philosophies, and public policy perspectives of the discipline's subfields; makes students more sophisticated consumers of diverse empirical research; and develops abilities to gather, evaluate, and disseminate information.

## PS 120 - (S) U.S. Politics: Principles & Citizenship

3 cr.

(Formerly PS 130)
Addresses key principles of American government: democracy, constitutionalism, separation of powers, and federalism. It also covers political parties, voting, public opinion, interest groups and the media.

## PS 121 - (S) U.S. Politics: Institutions & Policy

3 cr.

(Formerly PS 131)
Addresses structures and functions of the branches of government: Congress, the presidency, bureaucracy, and the courts. It also covers civil rights and civil liberties, and an overview of domestic and foreign policies.

## PS 135 - (S) State and Local Government

3 cr.

The structures, scope, processes, and politics of state and local governments are analyzed. Also considered: the constitutional position of state and local governments; the changing relationships among federal, state and local governments; and policy areas of interest to students in the class (educational policy, criminal justice policy, etc.).

## PS 210 - (Q,EPW) Political Science Research

3 cr.

(Formerly PS 240)
This course provides an introduction to a variety of empirical research methods used by political scientists. The primary aims of the course are to make the student a more sophisticated consumer of diverse empirical research and to provide the tools needed to carry out research.

## PS 212 - (S) International Relations

3 cr.

This course examines the prominent tenets of international relations as an academic discipline. Secondly, students are provided with basic knowledge and tools for analyzing the international system as it unfolds today. A constant theme is bridging the gap between theory and practice of international relations.

## PS 213 - (D) Modern Africa

3 cr.

An introduction to the politics of major African states with emphasis on ethnic, racial, and religious tensions as well as the geopolitics of the region.

## PS 216 - (D,S) Women's Rights and Status

3 cr.

This course examines public policies that impact the legal, political, economic, and social status of women in the U.S. A historical exploration of women's rights will be the foundation for the examination of women's rights and status today. The future prospects of women's rights and status will also be discussed.

## PS 217 - Comparative Government

3 cr.

Political institutions of Germany, France, Britain, and selected Third World nations are analyzed with focus on elections, parties, interest groups and foreign policies.

## PS 219 - (S,D) Latin American Politics

3 cr.

An overview of the political cultures and political dynamics of Latin America. A series of representative nations is examined to provide a general overview of the region. Topics include historical figures and events, the processes of democratization and modernization, and issues in contemporary politics.

## PS 221 - Politics of Southeast Asia

3 cr.

Domestic politics of Southeast Asia and international politics affecting the region. The ASEAN nations (Thailand, Indonesia, Malaysia, Philippines, Singapore, and Brunei) and Myanmar, the region's only socialist country, along with the three communist states of Indochina: Vietnam, Laos, and Cambodia are considered; spheres of influence and capitalism versus state socialism as a lever of economic development are also discussed.

## PS 222 - Politics in Russia

3 cr.

This course considers Russian politics and colonialism from the Revolution to contemporary economic efforts to move toward capitalism. The politics of the remnants of the Soviet empire are examined and Stalin and the Bolshevik experiment are also examined.

## PS 223 - Politics of Ireland

3 cr.

Ireland's political history predates the creation of the Irish Free State in 1922 and this course examines the major events and important influences that led to the creation of the Irish polity and political structures as well as contemporary politics in the

Republic of Ireland. The Irish Constitution, Irish parliamentary government, the political parties, and contemporary political issues are covered.

## PS 227 - (D,S) Women, Authority and Power

3 cr.

This course studies the historical and current paradox of women and U.S. public policy decision making. It examines the role of women in pressure politics, their integration into positions of political authority, and the future prospects for the political power and authority of women.

## PS 230 - (S) Environmental Laws and Regulations

3 cr.

Consideration of the variety of statutory laws legislated by Congress, as well as the variety of administrative rules and regulations promulgated by the executive branch. Policy areas include air pollution, water pollution, solid and toxic waste disposal, management of public lands, and the regulation of nuclear power. Course also includes a brief introduction to international cooperation and conflict.

## PS 231 - (S) Environmental Policy Process

3 cr.

The role of legislative, executive, and judicial institutions in shaping the content of environment policy. Discussion of the processes by which such policies are formulated and implemented, including consideration of the impact of federalism.

## PS 232 - Public Administration

3 cr.

A study of the structures, scope and processes of American public bureaucracies. The growth of the executive branches of governments, the role of public bureaucracies in our democratic government, and the experiences of American public bureaucrats are analyzed.

## PS 241 - (D,S) Politics of Development

3 cr.

Why are some countries wealthier and more politically stable than others? Drawing on case studies from Asia, Africa, and Latin America, as well as global trends, this class will examine political, economic, and social development challenges in low- and middle-income countries.

## PS 280 - Pre-Law Internship

3 cr.

Permission of faculty advisor and department chair required for internship registration.

## PS 296 - Irish Political Culture

3 cr.

Irish political culture is summarized as "all politics is local." This course examines Irish political culture and contemporary issues through interactions with Deputies in the Irish Parliament, staff, officials in Government Departments, officials of the political parties, and community leaders. The location is Dublin with trips to other locations.

## PS 310 - Judicial Politics

3 cr.

(Prerequisites: PS 121 or PS 135, or instructor permission)
Role of the federal and state court systems in our constitutional democracy, with an emphasis on their policy-making functions. Consideration of the factors shaping the judicial philosophies and political orientations of federal and state justices and judges.

## PS 311 - Constitutional Law I

3 cr.

An examination, by means of case law, of the demands of liberty and the demands of democracy within the American Constitution. Topics include federalism, the separation and division of powers, social issues tied to industrialization and urbanization, commercial and property rights, and the rights of the poor and the oppressed as they arise in our legal framework.

## PS 312 - Constitutional Law II

3 cr.

An examination, by means of case law, of the demands of liberty and the demands of democracy within the American Constitution. Topics include federalism, the separation and division of powers, social issues tied to industrialization and urbanization, commercial and property rights, and the rights of the poor and the oppressed as they arise in our legal framework.

## PS 313 - (D) Classical Political Ideas

3 cr.

An examination of philosophical questions about politics (including the nature of law, morals, justice, and authority; and the role of ideas in political and social life) in classical texts from East and West, from Lao Tzu and Plato to the beginnings of modernity and Machiavelli.

## PS 314 - (D) Modern Political Ideas

3 cr.

An examination of philosophical questions and politics (including the nature of law, morals, justice, and authority; and the role of ideas in political and social life) in modern texts from East and West, from the beginnings of modernity with Machiavelli to Marx and Mao.

## PS 317 - Parties, Elections, and Interest Groups

3 cr.

Discussion of the historical development and current status of political parties and interest groups in the United States. Emphasis on the functions performed by political parties in our system vs. their functions in other systems, such as parliamentary democracies. Emphasis also on factors shaping the creation, maintenance, and political power of organized interest groups.

## PS 318 - U.S. Foreign Policy: Cold War and Aftermath

3 cr.

Examines and analyzes critically the content of American foreign policy in the Cold War and post–Cold War eras. Special emphasis on themes, goals and means of American foreign policy, particularly national security.

## PS 319 - (EPW) U.S. Foreign Policy Process

3 cr.

Examines the actual formulation and implementation of American foreign policy within the decision-making process. Analyzes what the process is, who the decision makers are, and internal and external variables of policy making in the U.S. Involves at least two in-depth American foreign policy case studies.

## PS 322 - Public Personnel

3 cr.

(Prerequisites: At least two of PS 120, PS 121, PS 135, PS 231, PS 232 or permission of instructor)
An examination of public personnel administration and management. Theories of organization, personnel management, civil service history, current issues in personnel administration and management are considered.

## PS 323 - (S,D) Central America

3 cr.

This course provides an overview of contemporary Central American politics. Special attention is given to the revolutionary upheavals in Nicaragua, El Salvador, and Guatemala. This course also explores current challenges to the region's economic and political development such as crime, free trade and relations with the United States.

## PS 325 - Politics of the Budgetary Process

3 cr.

(Prerequisites: At least two of PS 120, PS 121, PS 135, PS 231, PS 232 or permission of instructor)
Public budgeting in theory and in practice is discussed. Historical reforms and the inevitable politics of the process are considered. Use of budget simulations allow for practical experience.

## PS 327 - U.S. Congress

3 cr.

Reading and discussion of selected Federalist Papers in order to appreciate the founders' views on human nature, the nature of government, democracy, and legislatures. An examination of the structure and function of the contemporary United States Congress, including the impact of political parties and interest groups on the business of Congress. Theories of representation are also considered.

## PS 328 - (D) Modern China

3 cr.

Study of modern Chinese politics in the 19th and 20th centuries. Problems of modernization, Westernization, and communism in the People's Republic of China.

## PS 329 - The American Presidency

3 cr.

This course focuses on the American presidency – historical development, powers of the office, elections, models of the presidency and, to a lesser extent, the relations between the president and Congress, and the president and the Judiciary.

## PS 330 - Europe in World Affairs

3 cr.

Explores Europe and its member states as military, economic, and humanitarian actors in the global community. Examines the development and use of specific European-level principles, institutions, and international relationships associated with a common foreign and security policy, shaped by state-level interests and global pressures and needs.

## PS 331 - (EPW) The European Union

3 cr.

Provides an in-depth study of the European Union and its 25 member states in order to prepare students for an intercollegiate simulation of the EU, which is held in Washington, D.C., each December. Students examine the EU's theoretical and historical foundations, its institutions and policy procedures, and the ongoing challenges for European integration.

## PS 332 - (D) Modern Japan

3 cr.

This course examines the history and politics of Japan; the period of the shoguns; the reforms of the modernizing Meiji era at the end of the 19th century; the Japanese effort to conquer Asia; the postwar political structure; the question, “Is Japan a democracy?”; and the economic miracle of the present.

## PS 333 - United States-Latin American Relations

3 cr.

An introduction to the political, economic, and security relations between Latin America and the United States from the beginning of the 19th century through the present day. Present day topics include regional trade arrangements, democracy promotion, drug trafficking, immigration and the impact of 9/11.

## PS 334 - Comparative Civil Wars

3 cr.

(Prerequisites: At least one of PS 212, PS 217, PS 210 or permission of instructor)
The course introduces students to the comparative study of civil war. We discuss conceptual issues, review arguments related to their origins, examine how they vary in terms of intensity, use of child soldiers, refugee movements, and violence against civilians, and investigate how they end.

## PS 335 - (D) Women in the Global Community

3 cr.

Examines women's experiences in a global context. Studies women who emerge as elected political representatives and policy makers in various international arenas. Considers women as citizens in a complex global community, by exploring the abuse of women in war, and women's empowerment to fight global poverty and protect women's rights.

## PS 338 - Politics of Islam

3 cr.

The political ideology of Islam; efforts to establish theocracies in a number of states from Iran to Egypt to Malaysia and Indonesia; Islam as a political opposition in such countries as the Philippines, Russia, and China; Shiite versus Sunni sects; the politics of Israel and the Islamic states of the Middle East; OPEC; the Palestinian question; political terrorism; Islam as an expansionist ideology.

## PS 340 - September 11, 2001 and Beyond

3 cr.

Analyzes the major social and political events directly related to September 11, 2001. It examines the causes and consequences of 9/11 including the emergence of Al Qaeda, U.S. involvement in the Middle East, and U.S. efforts to ensure the safety of Americans at home and abroad.

## PS 384 - Special Topics in Political Science

3 cr.

Study and analysis of selected topics in the field of Political Science. The particular topic or topics will vary from year to year depending on the instructor and changing student needs.

## PS 480 - Political Science Internship I

3-6 cr.

Permission of faculty advisor and department chair required for internship registration.

## PS 481 - Political Science Internship II

3-6 cr.

Permission of faculty advisor and department chair required for internship registration.

## PSIO 220 - Advanced Human Anatomy and Physiology I

4 cr.

(Prerequisites: BIOL 141 – BIOL 142 and labs, CHEM 113 and lab)
The course will provide a study of human anatomy and physiology with a focus on basic terminology, homeostasis, histology, and the integumentary, skeletal, muscular, endocrine, nervous, and lymphatic systems. The course will emphasize the body's various coordinated functions from the cellular level to integrated organ systems. Primary literature articles and cases studies will be included. Concurrent enrollment in PSIO 220L is required.

## PSIO 220L - Advanced Human Anatomy and Physiology I Laboratory

1 cr.

(Prerequisites: BIOL 141 – BIOL 142 and labs and CHEM 113 and lab)
Laboratory exercises will include microscope use and the identification of integumentary, skeletal, muscular, nervous, endocrine, and lymphatic system structures using models and whole organism and whole organ dissections. In addition, physiology-related activities may be explored. Concurrent enrollment in PSIO 220 is required.

## PSIO 221 - Advanced Human Anatomy and Physiology II

4 cr.

(Prerequisites: BIOL 141 – BIOL 142 and labs, CHEM 113 and lab, and PSIO 220 and PSIO 220L)
The course will provide a study of the anatomy and physiology of the human organism, with a focus on the cardiovascular, respiratory, digestive, urinary, and reproductive systems. The course will emphasize the body's various coordinated functions from the cellular level to integrated organ systems. Primary literature articles and cases studies will be included. Concurrent enrollment in PSIO 221L is required.

## PSIO 221L - Advanced Human Anatomy and Physiology II Laboratory

1 cr.

(Prerequisites: BIOL 141 – BIOL 142 and labs, CHEM 113 and lab, and PSIO 220 and PSIO 220L)
Laboratory exercises will include the identification of cardiovascular, respiratory, digestive, and reproductive system structures using models and whole organism or whole organ dissections. In addition, physiology-related activities may be explored. Concurrent enrollment in PSIO 221 is required.

## PSIO 320 - Cellular and Integrative Physiology

4 cr.

(Prerequisites: BIOL 141 – BIOL 142, CHEM 113, PSIO 220 – PSIO 221, all with labs)
Modern physiology is a highly integrative discipline that relies on comprehension at all levels of function, from molecular to organismal. This course will delve into the foundational concepts and mechanisms that reside at the molecular and cellular levels. These foundational elements will be integrated as we explore how physiological systems enable organisms to adapt and respond to challenges posed by dynamic internal and external environments. A comparative approach that examines how organisms meet the unique challenges they encounter will inform the exploration of physiological function. Concurrent enrollment in PSIO 320L required.

## PSIO 320L - (EPW) Cellular and Integrative Physiology Laboratory

2 cr.

(Prerequisites: BIOL 141 – BIOL 142, CHEM 113, PSIO 220 – PSIO 221, all with labs)
Modern physiology is a highly integrative discipline that relies on comprehension at all levels of function, from molecular to organismal. This course will delve into the foundational concepts and mechanisms that reside at the molecular and cellular levels. These foundational elements will be integrated as we explore how physiological systems enable organisms to adapt and respond to challenges posed by dynamic internal and external environments. A comparative approach that examines how organisms meet the unique challenges they encounter will inform the exploration of physiological function. Concurrent enrollment in PSIO 320 is required.

## PSIO 384 - Special Topics in Physiology

2 - 4 cr.

(Prerequisites: PSIO 320)
Study of selected topics in physiology, varying from year to year in accord with student/faculty interest and current research advances. May include such topics as ecological physiology, vascular control, gastrointestinal physiology, renal physiology, etc.

## PSIO 390 - Experimental Approaches in Physiology Seminar

2 cr.

(Prerequisites: PSIO 220 and lab – PSIO 221 and lab, PSIO 320 and lab)
Modern research into physiological phenomena requires an integrated approach; connecting molecular and cellular information to that of a whole tissue or organism. In this seminar course, current research techniques involving molecular/cellular physiology, cell/tissue imaging, and whole organismal experimentation are discussed and critically evaluated for their effectiveness in investigating physiological questions.

## PSIO 393 - Undergraduate Research in Physiology

3 cr.

(Prerequisite: PSIO 320)
Pursuit of individual problems in physiological research for advanced students with sufficient background in the physiological and physical sciences.

## PSYC 105 - (E) Brain and Human Nature

3 cr.

An examination of the human mind, brain and why we are the way we are. Topics include the mind-body problem, the nature of consciousness, the evolution of behavior, addictions (e.g., love), eating disorders, depression, and aggression. (Credit cannot be earned for this course and PSYC 231 or NEUR 231; not open to Psychology majors or minors.)

## PSYC 106 - (E) Drugs and Behavior

3 cr.

This course will examine interactions between drugs and behavior. Behavioral topics will include: tolerance, addiction, learning, aggression, sexual behavior, eating, anxiety, depression and schizophrenia. Drug/drug categories will include: alcohol, cannabis, opiates, antidepressants and anti-anxiety. (Credit cannot be earned for PSYC 106 and PSYC 339 or NEUR 339; not open to Psychology majors or minors.)

## PSYC 110 - (S) Fundamentals of Psychology

3 cr.

An introduction to the scientific study of behavior through a survey of psychology's principal methods, content areas and applications. Course requirements include participation in psychological research studies and preparation of short article reviews.

## PSYC 140 - (FYOC,FYDT) Current Topics in Psychological Science

3 cr.

Psychological science relates directly to collective social behavior and to the human condition. This course introduces students to the process of using psychological science and civil discourse to address contemporary topics of societal importance.

## PSYC 210 - (Q) Statistics in the Behavioral Sciences

3 cr.

Basic statistics in the behavioral sciences, including organization and display of data; measures of central tendency; variability; correlation and regression; one- and two-sample t-tests; confidence intervals, one-way and two-way analysis of variance, chi-square; and consideration of effect size, power, and null hypothesis testing including types of errors. *Will include an introduction to computerized statistical-analysis package/s.*

## PSYC 211 - Research Methods and Statistical Analysis I

4 cr.

(Prerequisites: PSYC 110 and Psychology major or instructor permission)
The PSYC 211-212 sequence introduces the research methods and analytic techniques used in psychology by taking an integrated approach to method and analysis. PSYC 211 introduces the history of science in psychology, the logic of scientific research, scientific ethics hypothesis testing, data collection, and descriptive, observational, and correlational methods. Statistical techniques include data organization, central tendency, variability, correlation, regression, chi-square, z-scores, probability, and confidence interval. Students will gain hands-on experience in research design, data collection, and analysis through lab activities and with statistical software.

## PSYC 212 - (EPW) Research Methods and Statistical Analysis II

4 cr.

(Prerequisites: Grade of C or higher in PSYC 211 or instructor permission)

The PSYC 211-212 sequence introduces the research methods and analytic techniques used in psychology by taking an integrated approach to method and analysis. PSYC 212 continues where PSYC 211 ended, by reintroducing the logic of hypothesis testing and introducing experimental and quasi-experimental methods in psychology. Statistical techniques include t-tests, one-way and factorial analysis of variance, measures of effect size, and power. Students will gain hands-on experience in research design, data collection, and analysis through lab activities and with statistical software.

## PSYC 220 - (S) Social Psychology

3 cr.

(Prerequisite: Grade of C or higher in PSYC 110, AP or Transfer Credit)
Social determinants of behavior from a psychological perspective. Topics include liking, love, conformity, persuasion, attitude change, and person perception.

## PSYC 224 - (S) Personality and Individual Differences

3 cr.

(Prerequisite: Grade of C or higher in PSYC 110, AP or Transfer Credit)
A survey of scientific theory and research on human variation in personality and other behavioral domains.

## PSYC 225 - (S) Abnormal Psychology

3 cr.

(Prerequisite: Grade of C or higher in PSYC 110, AP or Transfer Credit)
A comprehensive survey of mental and behavioral disorders from biological, psychological, and sociocultural perspectives. The course will consider diagnosis and labeling, overview of specific disorders, and various treatment approaches.

## PSYC 226 - (S) Lifespan Development: Cognitive and Biological

3 cr.

(Prerequisites: Grade of C or higher in PSYC 110, AP or Transfer Credit)
This course will consider cognitive development across the human lifespan, including memory, perception, attention, intelligence, executive function, and language. The biology of development from the prenatal environment to death, along with physical growth, will also be discussed.

## PSYC 227 - (S) Lifespan Development: Social and Emotional

3 cr.

(Prerequisite: Grade of C or higher in PSYC 110, AP or Transfer Credit.)
This course will survey social and emotional development across the human lifespan. It will consider the development of emotions, morality, and gender roles, and the contexts in which that development occurs. Social aspects of the aging process and information on child and elder abuse will also be covered.

## PSYC 228 - Health Psychology

3 cr.

(Prerequisite: PSYC 110)
An overview of health psychology and its professional activities. Topics include methods of health promotion and disease prevention, theories of health behavior change, a biopsychosocial approach to treating chronic illnesses, stress/coping processes, pain management, social factors that affect health and illness, and the role of psychologists in integrated healthcare.

## PSYC 230 - Sensation and Perception

3-4 cr.

(Prerequisite: Grade of C or higher in PSYC 110, AP or Transfer Credit)
Concerns the study of sensory mechanisms and perceptual phenomena. Optional lab entails supervised individual experimentation. Lecture, 3 credits; optional 1-credit laboratory, PSYC 230L. Lab fee; Lab offered periodically.

## PSYC 231 - (E) Behavioral Neuroscience

3-4.5 cr.

(Prerequisite: Grade of C or higher in PSYC 110, AP or Transfer Credit or BIOL 141-BIOL 142)
Introduction to the field of neuroscience, examining the cellular bases of behavior, effects of drugs and behavior, brain/body correlates of motivation and emotion, and neural changes accompanying pathology. Three hours lecture and optional 1.5-credit laboratory, PSYC 231L. Lab fee; Lab offered Fall only. (Credit cannot be earned for both NEUR 231 and PSYC 231.)

## PSYC 232 - Psychology of Language

3 cr.

(Prerequisite: Grade of C or higher in PSYC 110, AP or Transfer Credit)
An introduction to the scientific study of the psychological processes underlying the ability to produce and understand language. Topics include how humans learn language, how humans comprehend language, how humans speak, bilingualism, the relationship between language and thought, and language in non-human species.

## PSYC 233 - (S) Evolutionary Psychology

3 cr.

(Prerequisite: Grade of C or higher in PSYC 110, AP or Transfer Credit)
An introduction to the field of evolutionary psychology: the scientific study of human nature dedicated to discovering and understanding the mental adaptations that evolved to solve ancestral survival and reproductive problems. Topics discussed include eating, habitat selection, marriage, casual sex, parenting, kinship, cooperation, aggression, warfare, and conflict between the sexes.

## PSYC 234 - (S) Cognitive Psychology

3-4 cr.

(Prerequisite: Grade of C or higher in PSYC 110, AP or Transfer Credit)
Considers a number of approaches to the study of human cognitive processes with an emphasis on the information processing model. Topics include pattern recognition, attention, memory, imagery, concepts and categories, and problem solving. Lecture, 3 credits; optional 1-credit laboratory, PSYC 234L. (Lab fee; Lab offered periodically.)

## PSYC 235 - Learning and Behavior

3-4 cr.

(Prerequisite: Grade of C or higher in PSYC 110, AP or Transfer Credit)
Concerns the experimental study of both classical and instrumental conditioning. Optional lab involves supervised animal and human experimentation. Lecture, 3 credits; optional 1-credit laboratory, PSYC 235L. (Lab fee; Lab offered periodically.)

## PSYC 236 - Industrial/Organizational Psychology

3 cr.

(Prerequisite: Grade of C or higher in PSYC 110, AP or Transfer Credit)
The psychological study of people at work. Topics include personnel selection and training, motivation, leadership, the physical work environment, and computer applications.

## PSYC 237 - (D,S) Psychology of Women

3 cr.

(Prerequisite: Grade of C or PSYC 110, AP or Transfer Credit)
Examines the biological, sociological and cultural influences on the psychology of women. Topics include gender socialization, sex roles, and the impact of gender on personality, communication, achievement, and mental health. Offered periodically.

## PSYC 238 - Exercise and Sport Psychology

3 cr.

(Prerequisite: Grade of C or higher in PSYC 110, AP or Transfer Credit)
Covers principles of motivation, goal setting, reinforcement, emotional regulation, attention control, imagery, and positive thinking and the psychological benefits of exercise and exercise adherence. Areas of application in sport include preparation for competition, group and team dynamics, leadership, aggression in sport, and character development and sportsmanship.

## PSYC 239 - Environmental and Conservation Psychology

3 cr.

(Prerequisite: Grade of C or higher in PSYC 110, AP or Transfer Credit)
Provides an overview of psychological theories and methods used to study the human-nature relationship and the specific approaches used to address modern environmental problems. This is a service learning course. Students will spend a minimum of 25 hours applying course concepts/tools to assist local environmental agencies.

## PSYC 310 - Multivariate Statistics

3 cr.

(Prerequisite: Grade of B or higher in PSYC 210 or equivalent course)
Introduction to commonly used multivariate statistical methods including partial correlation, multiple regression, and factor analysis. Emphasis on analysis of actual data sets with SPSS, comparing alternative solution methods and their interpretation. Not regularly scheduled.

## PSYC 325 - Abnormal Child Psychology

3 cr.

(Prerequisites: PSYC 110, PSYC 225)
This course considers atypical social, emotional, and mental development during childhood and adolescence. Topics include intellectual disability, giftedness, learning disorders, psychopathology of childhood and adolescence, and conduct disorders. Offered Spring only.

## PSYC 330 - Research Methods in the Behavioral Sciences

3 cr.

(Prerequisites: PSYC 110; grade of C or higher in PSYC 210)
A survey of scientific methods and research designs in the behavioral sciences. Topics include single subject, survey, correlational and experimental research, and computerized data analysis. Not open to Psychology majors.

## PSYC 334 - Couple and Family Therapy

3 cr.

(Prerequisites: PSYC 110, PSYC 225)
An introduction to the theory, research, and practice of couple-counseling and family therapy. Topics include family dysfunctions, assessment methods, treatment approaches, innovative techniques, and research findings. Not regularly scheduled. (Credit cannot not be earned for both HD 334 and PSYC 334.)

## PSYC 335 - Psychological Testing

3 cr.

(Prerequisites: PSYC 110; grade of C or higher in PSYC 210 or PSYC 211)
Provides a thorough grounding in principles of testing and a review of the major types of assessment, including intellectual, personality and interest.

## PSYC 339 - Psychopharmacology

3 cr.

(Prerequisites: PSYC 110; grade of C or higher in PSYC 231)
This course surveys the field of psychopharmacology with particular attention being paid to functional neuoranatomy, the important role of behavioral science, and the neuropharmacology of normal/ abnormal behaviors. Numerous research strategies are examined, including dose-response functions, therapeutic indices, routes of administration, and pharmacological/behavioral models of clinical conditions. Offered alternating years. (Credit cannot be earned for both NEUR 339 and PSYC 339.)

## PSYC 350 - Cognitive Neuroscience

3 cr.

(Prerequisites: Grade of C or higher in PSYC 210; PSYC 231/NEUR 231 or PSYC 234)
This course explores the neural underpinnings of human cognition by introducing research on the relationship between mind and brain. The course introduces and expands on neuroanatomy, research methods used to make inferences about brain bases of cognition (e.g., imaging, electronencephalography, lesion studies), and computational approaches to cognitive neuroscience. Discussions and activities focus on the brain bases of cognitive operations in perception, attention, memory, language, executive control, social cognition, reasoning, and decision making. (Credits cannot be earned for both PSYC 350 and NEUR 350.)

## PSYC 360 - (EPW) Clinical Psychology

3 cr.

(Prerequisites: PSYC 110; Grade of C or higher in PSYC 225)
An overview of contemporary clinical psychology focusing on its practices, contributions and directions. Topics include clinical research, psychological assessment, psychotherapy systems, community applications, and emerging specialties, such as health and forensic psychology. Fall only.

## PSYC 361 - Cognitive Behavior Therapy

3 cr.

(Prerequisites: PSYC 110; grade of C or higher in PSYC 225)
Examines treatments of psychologist Albert Ellis and psychiatrist Aaron Beck. Ellis' approach is rational emotive behavior therapy, and Beck has used the term cognitive therapy, or the more general "cognitive behavior therapy." This course provides an overview of theory, empirical support and future directions. Not regularly scheduled.

## PSYC 362 - Child Clinical Psychology

3 cr.

(Prerequisites: PSYC 110, PSYC 225)
Surveys approaches to psychotherapy with preschool through early adolescent children with common emotional, behavioral, and developmental problems. Theory, assessment, formulation, and therapeutic techniques are addressed, and evidence-based approaches are highlighted.

## PSYC 363 - Behavior Modification

3 cr.

(Prerequisites: PSYC 110 and PSYC 235)
Examines applications of social-learning principles in clinical, educational, and other applied settings. Topics include behavioral assessment, operant principles, self-management, response maintenance and ethical-legal issues raised by behavior modification. Students may be required to complete a self-management project during the course. Not regularly scheduled.

## PSYC 364 - (D) Psychology of Diversity

3 cr.

(Prerequisites: PSYC 110, and one of the following: PSYC 220, PSYC 226, PSYC 227, PSYC 224, PSYC 225, PSYC 233, PSYC 236, or PSYC 237, or SOC 220 or SOC 224.)
Examines how individuals' thoughts, feelings, and behavior are intertwined with their diverse cultural environments. Includes the psychological processes that lead to social injustices, the effects of discrimination on individual well-being, and strategies for reducing prejudice and promoting diversity. Emphasis will be on race/ethnicity, sexual orientation, and socioeconomic status but other dimensions of diversity (e.g., age, weight) will also be considered. Offered alternate years.

## PSYC 365 - Positive Psychology

3 cr.

(Prerequisites: PSYC 110; a grade of C or higher in PSYC 225)
Provides an introduction to positive psychology, the scientific study of how individuals thrive and communities flourish. This course focuses on explaining, predicting, and improving subjective well-being. As part of the course, students will participate in experiential activities designed to enhance their strengths, virtues, and positivity.

## PSYC 390 - Career Development in Psychology

1 cr.

(Prerequisites: junior standing; Psychology major)
This seminar entails studying, discussing, and applying information on academic planning, career development, and graduate school. Fall only.

## PSYC 480 - Field Experience in Clinical Settings

3 cr.

(Prerequisites: Psychology major; junior or senior standing with priority given to seniors; grade of C or higher in both PSYC 225 and PSYC 360; permission of instructor: PSYC 335 strongly recommended)
This course entails supervised field experience in a mental-health or social-service facility in the community. Students are required to spend 8 hours a week at their placement site and 1.5 hours a week in a seminar throughout the semester. The professor provides classroom instruction, and the on-site supervisor provides clinical supervision. Graded Satisfactory/Unsatisfactory.

## PSYC 481 - Field Experience in Applied Psychology

3 cr.

(Prerequisites: Psychology major; junior or senior standing with priority given to seniors; a grade of B or higher in the psychology course that the faculty mentor deems most relevant to the field experience; permission of instructor)
This course involves 100 hours of field experience in community settings that apply psychology, including cognitive, developmental, environmental, gerontological, language, quantitative, organizational, personal, and social psychology. Student will meet 6 times in a group seminar and an additional 5 times individually with a faculty mentor. Graded Satisfactory/Unsatisfactory. Spring semester only.

## PSYC 490 - History and Literature of Psychology I

1.5 cr.

(Prerequisites: senior standing; Psychology major or minor)
This lecture and discussion course will examine the history of modern psychology from pre-Socratic philosophers to contemporary perspectives. Emphasis will be placed on the influential works of the schools of thought that have shaped the emergence of psychology. Fall only.

## PSYC 491 - (EPW) History and Literature of Psychology II

1.5 cr.

(Prerequisite: senior standing; grade of C or higher in PSYC 490)
This seminar, designed for students with a major or minor in Psychology, will entail critical reading, analysis, and discussion of selections from the seminal literature in psychology, including selected works of William James, Sigmund Freud, and B.F. Skinner. Individual professors will choose additional readings on the basis of their interests and student preferences. Spring only.

## PSYC 492 - Advanced Topics Seminar

1-2 cr.

Seminar course featuring advanced topics in psychology. Restricted to junior and senior psychology majors by permission of the instructor. The specific topic, scheduling format, and course prerequisites will vary by seminar. The topics, with specific prerequisites, will be listed each semester and can be obtained for the academic year from the department chairperson. Not regularly scheduled.

## PSYC 493 - Undergraduate Research

1-3 cr.

(Prerequisites: junior or senior standing; grade of B or higher in PSYC 330 lecture and the Psychology course most relevant to research topics; permission of instructor)
Individual study and research on a specific topic under the supervision of a faculty member. May be taken for 1 to 3 credits per course. Students are expected to spend a minimum of 3 to 4 hours a week per credit on research activities throughout the semester.

## PSYC 494 - (EPW) Undergraduate Research

1-3 cr.

(Prerequisites: junior or senior standing; a grade of B or higher in PSYC 330 lecture and the Psychology course most relevant to research topics; permission of instructor)
Individual study and research on a specific topic under the supervision of a faculty member. May be taken for 1 to 3 credits per course. Students are expected to spend a minimum of 3 to 4 hours a week per credit on research activities throughout the semester.

## RUSS 110 - (CF) Intensive Beginning Russian

5 cr.

Primary emphasis on developing the skills of understanding, speaking, reading and writing Great Russian, with thorough study of the Cyrillic alphabet. Meets five days a week. *Includes activities inside and/or outside the classroom that involve Language Learning Center (language lab) resources.* Offered fall only, even years.

## RUSS 210 - (CF) Intensive Intermediate Russian

5 cr.

(Prerequisite: RUSS 110 or equivalent)
Continues development of the four major skills: listening, speaking, reading, and writing. Builds on grammatical concepts learned in RUSS 110 and provides a solid foundation for the student interested in visiting Russia and/or in reading the Russian classics, contemporary literature and newspapers. Meets five days a week. *Includes activities inside and/or outside the classroom that involve Language Learning Center (language lab) resources.* Offered spring only, odd years

## RUSS 295 - Contemporary Russian Culture and Language

6 cr.

(Prerequisite: RUSS 210 or equivalent)
A summer travel course to St. Petersburg, Russia. An examination of the development of Russian history, art, literature, language and culture.

## S/CJ 210 - (S) Law and Society

3 cr.

The relationship between law and society, or the interaction of legal and social variables. Examines jurisprudential and social theories of law; development of law; the role of the legal profession; legal behavior and decision making; and law and social change.

## S/CJ 211 - (EPW,Q) Research Methods and Statistics for the Social Sciences

3 cr.

(Prerequisites: CJ 110, S/CJ 213 or SOC 110)
An introduction to the techniques social scientists use to formulate, gather and analyze information. Focus is on research design starting with topic formation and ending with basic descriptive and inferential data entry and analysis. Specific research design formats will include program evaluation, survey, secondary data sources, and experimental designs.

## S/CJ 211L - Research Methods and Statistics for the Social Sciences Lab

1 cr.

(Prerequisite: A concurrent enrollment in S/CJ 211)
This one credit lab complements S/CJ 211 by giving students the chance to practice skills such as creating hypotheses and measures, designing applied surveys and experiments, and coding data. Students will also conduct descriptive, inferential, and effect size tests for independent and dependent samples, presenting the results in APA format.

## S/CJ 212 - Research Methods for the Social Sciences

3 cr.

Survey of methods and techniques for achieving interpretable results in research in criminal justice and the social sciences; research design; data collection.

## S/CJ 213 - (S) Criminology

3 cr.

Crime as a form of deviant behavior; nature and extent of crime; past and present theories; evaluation of prevention, control and treatment programs.

## S/CJ 214 - (S) Juvenile Delinquency

3 cr.

Nature and extent of delinquency: competing explanatory models and theories; evaluation of prevention, control, and treatment programs.

## S/CJ 215 - (Q) Statistics for the Social Sciences

3 cr.

An introduction to the techniques used by social scientists to analyze their data. Students learn descriptive and inferential statistics in conjunction with computer usage. Basic skills and procedures are taught for organizing and describing data, assessing relationships among social variables, and using this information to make inferences about the population.

## S/CJ 218 - (S) The American Court System

3 cr.

Mindful of the role played by our judiciary in resolving disputes, setting policy, and otherwise having an impact on everyday life, this course provides a basic examination of America's courts in terms of their history and development, their structure and organization, their procedures, people, institutions and issues.

## S/CJ 219 - American Policing

3 cr.

The course is designed to introduce the student to contemporary policing in a free society. The course will focus on three interrelated topical areas: historical foundation of policing including the definition, evolution, and current role of policing in America; functions of policing including patrol, order maintenance, investigation and community policing; contemporary police problems will be presented including corruption, discretion, deadly force and minority relations.

## S/CJ 220 - American Corrections

3 cr.

Analysis and evaluation of contemporary correctional systems; theories of punishment; discussion of recent research concerning the correctional institution and the various field services; the history of corrections in Pennsylvania.

## S/CJ 221 - Community-Based Corrections

3 cr.

Examination of community treatment in the correctional process; contemporary usage of presentence investigation, selection, supervision, release of probationers and parolees.

## S/CJ 224 - (S) Sociology of Deviance

3 cr.

Critical examination of theories and empirical studies of social deviance, focusing upon the formulation and application of deviant labels, organizations relating to deviance, and deviant behavioral patterns. Special attention given to noncriminal forms of deviance.

## S/CJ 225 - White-Collar Crime

3 cr.

A study of white-collar crime, including corporate misdeeds, political corruption, occupational illegalities and upper world deviance. This course will explore the causes, consequences, and criminal justice system response to white-collar crime.

## S/CJ 227 - Organized Crime Patterns

3 cr.

The national and international organizational structure of organized crime will be analyzed. Primary attention will be given to comparative theories and concepts. The various methods of prosecution, investigation and control will be discussed.

## S/CJ 228 - Crime and Criminal Justice in the Media

3 cr.

This course will assist students in critically examining how various forms of media portray crime, criminal, the criminal justice process, and their affect on our society. Student will gain an understanding of how the realities of crime and criminal justice in the U.S. contrast with many of these images.

## S/CJ 232 - Public Safety Administration

3 cr.

The course focuses on an examination of the police and governmental responses to disaster and accidents. A primary emphasis is given to the various analytical approaches to the study of terrorism and homeland security. Methods of planning, investigation and prevention are discussed.

## S/CJ 234 - Criminal Justice Management

3 cr.

This course surveys major trends in law enforcement including leadership, management, and administration. It includes discussion of police personnel issues, computerized training programs and police health issues. The emphasis is on critical thinking, problem solving and contemporary policing practices.

## S/CJ 284 - Special Topics in Criminal Justice

3 cr.

(Prerequisite: Permission of chairperson and instructor)
Courses designed to meet specific needs of individual students or courses offered on a trial basis to determine the value of placing them into the regular curriculum.

## S/CJ 314 - The Bill of Rights and Criminal Justice

3 cr.

From the perspective of the criminal justice professional, this course addresses key principles enunciated in the first, fourth, fifth, sixth, eighth and fourteenth amendments to the Constitution of the United States.

## S/CJ 316 - Principles of Evidence

3 cr.

An examination of the law of evidence pertaining to the trial of a criminal case. A discussion of the common law, pertinent statutes, judicial opinions, and rules (e.g., the Federal Rules of Evidence) relating to: direct and circumstantial evidence; opinion testimony; exhibits; competence, relevance, materiality; privileges; and hearsay and its exceptions.

## S/CJ 317 - Trial, Jury and Counsel

3 cr.

A consideration of the rights guaranteed by the Sixth Amendment to The Constitution of the United States, surveying constitutional provisions, statutes, court rules, and cases concerning the right of a criminal defendant to a speedy and public trial, to trial by jury, and to the assistance of counsel.

## S/CJ 318 - Civil Liability

3 cr.

An examination of the law-enforcement officer or employee as a defendant in a civil suit arising from the scope of his or her employment. Liability based upon rights statutes is examined, along with consideration of the typical defenses.

## S/CJ 324 - Victimology

3 cr.

An examination of the causes and consequences of crime victimization. The recent emergence of the study of the victim, the types and circumstances of victimization, and the nature of the criminal justice system's response to crime victims are considered, along with the ethical and practical dimensions of crime victimization.

## S/CJ 350 - (S,D) Comparative Justice Systems

3 cr.

(Formerly S/CJ 226)
An exploration of the meaning and character of justice, law and crime in different cultures and countries, and of evolving global standards and patterns of justice, international law, and transnational crime, making specific comparisons between Western and Eastern nations, capitalist and socialist systems, and countries having much crime and little crime.

## SOC 110 - (S) Introduction to Sociology

3 cr.

Fundamental principles in the field of sociology. Stratification, ethnicity, deviance; basic institutions of society; social change and demographic trends.

## SOC 112 - (S) Social Problems

3 cr.

Application of sociological principles to major issues in contemporary society.

## SOC 115 - Introduction to Social Work

3 cr.

Growth of social work as a professional endeavor. The scope of social work; casework in the medical, psychiatric, family and child welfare, and guidance fields, community organization, social research, social planning, social group work. Current trends in social work.

## SOC 210 - (EPW,D) Marriage and the Family

3 cr.

An historical, comparative, and analytical study of marriage and family institutions. Problems of courtship, mate selection and marriage adjustment in modern society.

## SOC 211 - Methods of Social Research

3 cr.

This course is designed to help the student understand the range of research methods used in sociological and gerontological research/investigations and evaluate their strengths and weaknesses. It will also help students to appreciate some basic problems involved in the collection and analysis of data.

## SOC 212 - (D,S) Religion and Society

3 cr.

A survey of religious systems and their interrelations with society and social institutions, with emphasis on the social consequences and determinants of religious behavior. The theories of Durkheim, Weber, Parsons, Bellah, Berger and Luckman will be examined. (Credits may not be earned for SOC 212 and T/RS 334.)

## SOC 213 - (S,D) Collective Behavior and Social Movements

3 cr.

This course will examine collective behavior which includes protest demonstrations, riots, mass or diffuse phenomena such as fads and crazes, social movements, and revolution, with a decided emphasis on social and political movements. This course is recommended for those interested in sociology, political science, history, or other social sciences.

## SOC 214 - Sociology of Sport

3 cr.

The role of sport in civilized societies; sport as work and recreation; women and minorities in sport; sport in education; sport and the mass media.

## SOC 216 - Medical Sociology

3 cr.

The social dimensions of health and illness; role of physician, nurse and patient; social organization of health services; the content of medical practice; culture and health disorders; mental health and mental illness.

## SOC 218 - Sociological Theory

3 cr.

An examination of the major theoretical developments in sociological theory from the classical period of Marx, Weber, and Durkheim to contemporary schools such as structural-functionalism, conflict theory, exchange theory, and symbolic interaction.

## SOC 219 - Community Organization

3 cr.

A general introduction to the process of community organization, as a field of both social work and human endeavor. The coordination and financing of welfare activities, methods of appraising community needs and resources, planning and the initiation of welfare services. Services of a voluntary and governmental nature, strategies of power.

## SOC 220 - (S,D) Social Stratification

3 cr.

This course will investigate the varying levels of inequality in our society, based on the intersections of race, class, and gender. An assessment of various social inequality issues and institutional realms, such as politics and the economy, will be made from a sociological perspective.

## SOC 222 - (S,D) Gender in Society

3 cr.

This course is an overview of the sociological perspective on gender and gender inequality. Various sociological theories and research on gender will be examined, including intersectional and feminist perspectives. How gender affects self-identity, family life, work, politics, sexuality, and other areas of society will be addressed.

## SOC 224 - (S,D) Race and Ethnic Relations

3 cr.

An introduction to the sociology of race and ethnicity, this course focuses on the historical construction and continued significance of these categories over time. Various racial and ethnic group experiences will be studied in terms of their treatment by dominant social institutions and their access to social, cultural, and political power in the United States.

## SOC 226 - Sociology of Work and Professions

3 cr.

The nature and role of contemporary occupations and professions in the life cycle are discussed; occupational choice, career patterns and occupational mobility are noted. The student is made aware of the relationship among education, work and aspirations. The career path from entry-level job to retirement is examined.

## SOC 228 - Social Psychology

3 cr.

Study of individual behavior as affected by cultural and social stimuli. Emphasis on the analysis of human conduct in social settings.

## SOC 230 - Sociology of Globalization

3 cr.

This course will investigate the major theories and processes of globalization from a sociological perspective, including neoliberalism, feminist theory, world systems theory, and world cultures theory. Topics will include global inequalities based on race, gender, and social class, economic, political, and cultural globalization, and global environmental problems.

## SOC 234 - (S,D) Cultural Anthropology

3 cr.

Cultural and social organization among primitive or preliterate societies: marriage, property, religion, magic and tribal control. Significance of the study of primitive cultures for understanding of urban industrial civilizations.

## SOC 284 - Special Topics in Sociology

3 cr.

(Prerequisite: Consent of the chair and the instructor)
Courses designed to meet specific needs of individual students or courses offered on a trial basis to determine the value of placing them into the regular curriculum.

## SOC 315 - (D) Feminism and Social Change

3 cr.

This course examines the relationship between feminism and social change, studying feminist movements and how feminist ideologies, strategies, and individuals influenced social movements. It also explores outcomes of women's movements, the mobilization of counter-movements, and the consequences of feminism for society for various organizational and professional roles and for individual women. (Credit cannot be earned for WOMN 215 and SOC 315.)

## SOC 317 - (EPW,D) Family Issues and Social Policy

3 cr.

This *service-learning course* examines family problems of work and poverty, separation and divorce, family violence, and elder care, addressing each in terms of describing the social problem and why it exists and the program/policies designed to address it. Students are offered solutions and are helped to apply multicultural interpretations.

## SOC 323 - (D) Great American Cities

3 cr.

A sociological exploration of selected major U.S. cities will review a variety of cultures and examine that matrix of ideas, creeds, religions, races, ethnicities, attitudes, habits, artifacts and institutions – social, educational, artistic, political and economic – which condition the way the people in each city live.

## SOC 328 - Child Welfare

3 cr.

Development of child welfare in the United States. Educational, health, recreational and child-labor regulations. Study and treatment of children in their own homes, foster homes and institutions. Child care and protective programs on federal, state and local levels.

## SOC 330 - Social Policy and Aging

3 cr.

Review of major legislation affecting older adults, including the Social Security Act, Older Americans Act, Medicare, and various local, state, and national programs for the aged.

## SOC 331 - (EPW) Urban Sociology

3 cr.

This service-learning course will allow students to understand and investigate how cities were historically formed and how they change over time, using sociological perspectives and research. Other topics covered include: sociological urban theory, race and ethnicity, gender and sexuality, immigrant groups, suburbanization, deindustrialization, globalization, and urban social problems.

## SOC 382 - 383 - Independent Study in Sociology

3 cr.

(Prerequisite: Consent of the chair and instructor)
Designed for advanced students who are capable of independent study. A program of planned research under the guidance of a faculty member.

## SOC 383 - Independent Study in Sociology

1.5 cr.

(Prerequisite: Consent of the chair and instructor)
Designed for advanced students who are capable of independent study. A program of planned research under the guidance of a faculty member.

## SOC 480 - 481 - Internship in Sociology

3 cr.

(Prerequisite: junior or senior standing; permission of instructor)
Supervised experiential learning designed to broaden the educational experience of students through practical experience and work assignments with governmental and/or community agencies in the field of social work. Supervision by a faculty member and agency supervisor.

## SOC 490 - Capstone Course in Sociology

3 cr.

(Pre-requisites: SOC 110, S/CJ 212, S/CJ 215, and SOC 218, or by permission of instructor)

As a Capstone Experience in Sociology, this class will give students the opportunity to engage in professional socialization, collaborative learning with other students, and to produce an original research paper on a topic of sociological interest.

## SPAN 101 - (CF) Beginning Spanish

3 cr.

Fundamentals of grammar, pronunciation, conversation; suitable readings and written exercises. Designed primarily for students with little or no background in the Spanish language. Taught in Spanish. *Includes activities inside and/or outside the classroom that involve Language Learning Center (language lab) resources.*

## SPAN 102 - (CF) Beginning Spanish

3 cr.

(Prerequisite: SPAN 101 is normally the prerequisite to 102)
Fundamentals of grammar, pronunciation, conversation; suitable readings and written exercises. Designed primarily for students with little or no background in the Spanish language. Taught in Spanish. *Includes activities inside and/or outside the classroom that involve Language Learning Center (language lab) resources.*

## SPAN 211 - (CF) Intermediate Spanish

3 cr.

(Prerequisites: SPAN 101-SPAN 102 or equivalent, as determined by placement exam)
Grammatical review, written and oral composition with selected cultural readings of intermediate difficulty. Taught in Spanish. *Includes activities inside and/or outside the classroom that involve Language Learning Center (language lab) resources. Completion of SPAN 212 satisfies one semester of the cultural diversity requirements.*

## SPAN 212 - (CF,D) Intermediate Spanish

3 cr.

(Prerequisites: SPAN 101-SPAN 102 or equivalent, as determined by placement exam; SPAN 211 or its equivalent is normally the prerequisite to 212)
Grammatical review, written and oral composition with selected cultural readings of intermediate difficulty. Taught in Spanish. *Includes activities inside and/or outside the classroom that involve Language Learning Center (language lab) resources. Completion of SPAN 212 satisfies one semester of the cultural diversity requirements.*

## SPAN 295 - (CF,D,S) Contemporary Mexican Culture and Language

3 cr.

(Prerequisite: SPAN 211 or higher)
An intersession travel course to Mexico; 3 credits in Humanities (foreign language area) and cultural diversity credit. Team taught by University faculty from the department of World Languages with assistance from local Mexican faculty. *Taught in conjunction with LAS 295. Includes activities inside and/or outside the classroom that involve Language Learning Center (language lab) resources.*

## SPAN 296 - (CL,D) Topics in the Culture, Civilization, and Literature of Latin America

3 cr.

Travel course: develops understanding of the culture, literature and civilization of Latin America. Taught in English. Students desiring credit in Spanish must do all readings and writing in Spanish and meet with professor for discussions in Spanish.

## SPAN 311 - (CF,D) Spanish Conversation

3 cr.

(Prerequisites: SPAN 211-SPAN 212 or equivalent, as determined by placement exam)
Reading-based conversation stressing development of self-expression in Spanish. Taught in Spanish. *Includes activities inside and/or outside the classroom that involve Language Learning Center (language lab) resources.*

## SPAN 312 - (EPW,CF) Spanish Composition

3 cr.

(Prerequisite: SPAN 311 or equivalent)
Intensive writing practice stressing grammar, writing analysis, and composition. Taught in Spanish. *Includes activities inside and/or outside the classroom that involve Language Learning Center (language lab) resources.*

## SPAN 313 - (CF,D) Spanish Culture and Civilization

3 cr.

(Prerequisites: SPAN 311-SPAN 312 or equivalent)
An overview of the diverse historical, political, religious and artistic factors that have determined the cultural make-up of the peoples of the Iberian peninsula. Taught in Spanish. *Includes activities inside and/or outside the classroom that involve Language Learning Center (language lab) resources.*

## SPAN 314 - (EPW,D) Latin-American Culture and Civilization

3 cr.

(Prerequisites: SPAN 311-SPAN 312 or equivalent)
The course examines the diverse cultural, historical, linguistic, religious, and political features of Latin America. Taught in Spanish. *Includes activities inside and/or outside the classroom that involve Language Learning Center (language lab) resources.*

## SPAN 315 - Spanish for the Health Professions

3 cr.

(Prerequisites: SPAN 311 or equivalent and SPAN 312 or equivalent)
Designed for the student who plans to work in any area of health care, this course focuses on the needs and problems of Spanish-speaking patients. Students learn specialized vocabulary and improved communicative ability through conversation and composition and develop an increased awareness of health issues often of particular concern to Hispanics. Taught in Spanish. *Includes activities inside and/or outside the classroom that involve Language Learning Center (language lab) resources.*

## SPAN 319 - Business Spanish

3 cr.

(Prerequisites: SPAN 311-SPAN 312 or equivalent)
Overview of the spoken and written language of the Spanish business world. Formalities and conventions of letter writing, banking, import/export, and other commercial transactions. Analysis of terminology from business-related areas such as finance, insurance and international commerce within a contemporary cultural setting. Taught in Spanish. *Includes activities inside and/or outside the classroom that involve Language Learning Center (language lab) resources.*

## SPAN 320 - (CL) Introduction to Hispanic Literature

3 cr.

(Prerequisites: SPAN 311-SPAN 312)
An introduction to the principal genres of literature (poetry, short story, essay, drama and novel) through analysis of representative works in the Hispanic tradition. Required prerequisite for all upper-division literature courses. Taught in Spanish.

## SPAN 321 - (EPW) Advanced Conversation and Stylistics

3 cr.

(Prerequisites: SPAN 311-SPAN 312 or equivalent)
Designed to achieve more sophisticated use of Spanish, both orally and in writing. Includes intensive examination of compositions and translation exercises, as well as discussion of areas of particular difficulty for the non-native speaker (e.g., false

cognates and unfamiliar structures). Taught in Spanish. *Includes activities inside and/or outside the classroom that involve Language Learning Center (language lab) resources.*

## SPAN 324 - (D, CL) Latin American Fictions of the Body

3 cr.

(Prerequisites: SPAN 311 and SPAN 312)
This course explores the representation of illness, disability, and medicine in the literary and the visual arts of Latin/x America and the Caribbean. The course focuses on topics of health and human rights, Western biomedicine versus indigenous healing practices, and alterity. The course included 10 hours of experiential learning.

## SPAN 330 - (CL) History of Spanish Literature

3 cr.

(Prerequisite: SPAN 320)

Study of Spanish literature from Cantar de Mio Cid to 20th century, with emphasis on main literary currents in each century. Taught in Spanish.

## SPAN 331 - (CL,D) Survey of Spanish-American Literature

3 cr.

(Prerequisite: SPAN 320)
A survey of Spanish-American literature from the 16th century to the present, with representative readings from each of the principal cultural areas. Taught in Spanish.

## SPAN 335 - (D) Service and the Hispanic Community

3 cr.

(Prerequisites: SPAN 311-SPAN 312 or equivalent)
Focus on Hispanic cultures and traditions, the immigrant experience and cultural displacement. Each student, with assistance from local social service agencies, the Center for Service & Social Justice, and the course professor, develops and carries out a service project to the local Hispanic community involving 40 to 45 hours of service work. Taught in Spanish.

## SPAN 413 - Topics in Hispanic Prose

3 cr.

(Prerequisites: SPAN 320)
Prose fiction of Spain and/or Spanish America. Topics may focus on an author, a period, a movement, a country or region, or a theme. Content may vary and the course may, therefore, be repeated for credit with consent of department chair. Taught in Spanish.

## SPAN 421 - Twentieth-Century Spanish Drama

3 cr.

(Prerequisite: SPAN 320)
Peninsular drama of the 20th century including dramatic forms after Buero Vallejo and new directions of Spanish theatre in the post-Franco era. Taught in Spanish.

## SPAN 422 - Spanish-American Drama

3 cr.

(Prerequisite: SPAN 320)
Spanish-American drama from the late 19th century to the present, with emphasis on contemporary trends. Taught in Spanish.

## SPAN 430 - (CL,D) Hispanic Women Writers

3 cr.

(Prerequisite: SPAN 320)
This course examines writing by Hispanic women, including prose, poetry, drama and essays, and investigates the social, political, aesthetic, and feminist contexts of their writing. Cross-listed with Women's Studies. (See *Women's and Gender Studies Concentration* section.) Taught in Spanish.

## SPAN 434 - Hispanic Film and Society

3 cr.

(Prerequisites: SPAN 311-SPAN 312 or equivalent)
An in-depth exploration of cultural issues as portrayed in a variety of classical and modern films from Spain and/or Latin America by directors such as Luis Buñuel, Carlos Saura, Pedro Almodóvar, Guillermo del Toro, and María Luisa Bemberg. Examination and comparison of source texts where available. Taught in Spanish.

## SPAN 439 - The Craft of Translation

3 cr.

(Prerequisites: SPAN 311-312 or equivalent)
Study of the techniques of translation with emphasis on accurate terminology and proper syntax when translating newspaper articles, legal documents, medical records, business records and correspondence, essays, poems, songs, and short fiction. Taught in Spanish.

## SPAN 482 - Guided Independent Study

Variable Credit

(Prerequisites: SPAN 311-SPAN 312 or equivalent; junior or senior standing)
A tutorial program with content determined by mentor. Taught in Spanish.

## SPAN 483 - Guided Independent Study

Variable Credit

(Prerequisites: SPAN 311-SPAN 312 or equivalent; junior or senior standing)
A tutorial program with content determined by mentor. Taught in Spanish.

## STAT 251 - (Q) Statistics for Business I

3 cr.

(Prerequisites: BUS 140 and one of the following: MATH 106, MATH 107, MATH 108 or permission of instructor)
This course covers descriptive statistics including graphical, tabular and numerical summary measures, correlation, and regression. Topics in probability include basic concepts, random variables, decision making and risk, and probability distributions used in business applications. In preparation for the study of inferential statistics, sampling distributions and the normal model are also covered. Appropriate software is used for data analysis.

## STAT 251K - (Q) Statistics for Business I

3 cr.

(Prerequisites: senior standing, FIN 251K, OIM 352K, MGT 352, MKT 351K)
This honor course covers descriptive statistics including graphical, tabular and numerical summary measures, correlation, and regression. Topics in probability include basic concepts, random variables, decision making and risk, and probability distributions used in business applications. In preparation for the study of inferential statistics, sampling distributions and the normal model are also covered. Appropriate software is used for data analysis.

## STAT 252 - (Q) Statistics for Business II

3 cr.

(Prerequisite: STAT 251)
A survey of inferential statistics, this course covers confidence intervals and hypothesis tests for proportions, confidence intervals and hypothesis tests for means, hypothesis tests for comparing two means (independent and paired), Chi square tests, inference for regression, multiple regression, building multiple regression models and the design and analysis of experiments. Appropriate software is used for data analysis.

## STAT 252K - (Q) Statistics for Business II

3 cr.

(Prerequisite: STAT 251K)
A survey of inferential statistics, this honor course covers confidence intervals and hypothesis tests for proportions, confidence intervals and hypothesis tests for means, hypothesis tests for comparing two means (independent and paired), Chi square tests, inference for regression, multiple regression, building multiple regression models and the design and analysis of experiments. Appropriate software is used for data analysis.

## STAT 253 - Statistics for Economics

3 cr.

(Prerequisites: BUS 140 and one of the following: MATH 107, MATH 108 or permission of instructor)
Coverage of basic statistical tools used in economic analysis. Topics include descriptive analysis, probability, sampling, estimation and hypothesis testing of one and two variables, and simple regression. Emphasis is on applications of economic theory, measurements, and reporting. Fall Class

## T/JP 310 - Toward a Just and Peaceful World

3 cr.

In this seminar students will assess the courses that have fulfilled their requirements for the Peace and Justice Concentration and will explore the religious, philosophical and social/ethical concerns of their undergraduate education. Each participant will prepare and present a paper which assesses how her/his courses have met the goals of the concentration and the University's mission as it relates to the concern for justice.

## T/RS (P, D) 296 - Christianity in the Middle East

3 cr.

(Prerequisites: T/RS 121 and T/RS 122)
This travel course is based in Jerusalem and introduces the history of, differences between, and current religious, social, and political situations facing the Christians of the Middle East, with particular focus on the communities in Israel and Palestine.

## T/RS 121 - (P) Theology I: Introduction to the Bible

3 cr.

A survey of central texts and themes of the Bible. Its purpose is to develop biblical literacy as well as skills in interpreting various literary forms and key theological concepts.

## T/RS 121J - (P) Theology I: Introduction to the Bible

3 cr.

A survey of central texts and themes of the Bible. Its purpose is to develop biblical literacy as well as skills in interpreting various literary forms and key theological concepts.

## T/RS 122 - (P) Theology II: Introduction to Christian Theology

3 cr.

(Prerequisite: T/RS 121)
A survey of key Christian themes: creation, Christ's incarnation and redemption, the Church and sacraments, Christian personhood, and the practice of prayer, virtue, and hope for the future.

## T/RS 122J - (P) Theology II: Introduction to Christian Theology

3 cr.

(Prerequisite: T/RS 121)
A survey of key Christian themes: creation, Christ’s incarnation and redemption, the Church and sacraments, Christian personhood, and the practice of prayer, virtue, and hope for the future.

## T/RS 210 - (P,D) Jews, Christians, and the Bible

3 cr.

(Formerly T/RS 210Z) (Prerequisites: T/RS 121, T/RS 122)
A survey of ancient and modern ways of reading the Bible. The focus will be on a group of central biblical figures whose stories will be examined in the context of ancient Israelite history and society. The biblical stories will then be compared with later elaborations by Jewish and Christian interpreters.

## T/RS 212 - (P) Saints and Holiness

3 cr.

(Prerequisites: T/RS 121, T/RS 122)
An inquiry into the nature of Christian sanctity by an examination of the lives and accomplishments of traditional saints and of contemporary persons who respond to the Gospel message.

## T/RS 213 - (P) American Catholic Thought

3 cr.

(Prerequisites: T/RS 121, T/RS 122)
The major themes of American Catholic tradition from colonial times to the present are placed in their historical, religious, social and political context.

## T/RS 214 - (P) Inside the Catholic Tradition

3 cr.

(Formerly 214C) (Prerequisites: T/RS 121, T/RS 122)
This introduction to Catholic Tradition will study its scope, depth, and ongoing development, reception, and characteristics. Topics covered include Faith and Revelation, the intercommunion of Scripture and Tradition, the role of Magisterium, and the development of doctrine. Selected readings are taken from important conciliar texts and theologians.

## T/RS 215 - (P) The History of Christian Theology

3 cr.

(Prerequisites: T/RS 121, T/RS 122)
A study of the vital growth of Christianity's life, doctrine, worship and spirituality over the centuries. Special emphasis will be placed on principal leaders, thinkers and heroes.

## T/RS 217 - (P,D) The Holocaust in Context: History and Theology

3 cr.

(Prerequisites: T/RS 121, T/RS 122)
An exploration of the Holocaust through the perspective of the history of anti-Semitism. The course will examine the historical aspects of the Holocaust as well as the moral and theological issues raised by it.

## T/RS 218 - (P,D) Women in Christianity

3 cr.

(Prerequisites: T/RS 121, T/RS 122)
An exploration of some of the major roles women have played in Christian thought and experience, including their contributions as disciples, spiritual guides, and social critics. Will also examine assumptions about male and female identities and consider challenges to traditional roles.

## T/RS 219 - (P,D) The Religions of the World

3 cr.

(Prerequisites: T/RS 121, T/RS 122)
An exploration of beliefs and practices in major world religious traditions through systematic analysis, reading of primary and sacred texts, and encounter with representative practitioners and/or worship spaces. Includes the Catholic-Jesuit perspective on world religions and interreligious dialogue as expressed in *Nostra Aetate, GC #34 and other official documents.*

## T/RS 221 - (P) Prayer

3 cr.

(Prerequisites: T/RS 121, T/RS 122)
Introduction to the nature, purpose, and method of prayer in the Catholic Christian tradition.

## T/RS 222 - (P) Introduction to Christian Worship

3 cr.

(Prerequisites: T/RS 121, T/RS 122)
This course explores how Christian worship and theology inform one another. Particular attention will be given to the liturgical roots of Christian theology.

## T/RS 225 - (P) A Theology of Marriage

3 cr.

(Prerequisites: T/RS 121, T/RS 122)
This course will introduce students to the theology of marriage. It will focus on the distinctiveness of Christian marriage, its sacra mentality, marriage as a vocation and covenant, love and friendship in marriage, sex, singleness, family and children. Questions of the state of the institution of marriage in contemporary culture will also be discussed.

## T/RS 226 - (P) Faith and Healing: God and Contemporary Medicine

3 cr.

(Prerequisites: T/RS 121, T/RS 122)
This course will consider the history of Western medicine in the light of a range of Christian notions such as that life is a gift from God, that the body is good, that illness is a (limited) evil, that health is a responsibility. In this light, the idea that medicine is a calling and healing an art will be considered.

## T/RS 227 - (P) Biomedical Ethics

3 cr.

(Formerly 227Z) (Prerequisites: T/RS 121, T/RS 122)
This course will present theological reflections on the main ethical theories undergirding contemporary biomedical ethics. It will also present and discuss relevant philosophical and theological arguments on such issues as abortion, care of handicapped infants, euthanasia, suicide, and the profession of medicine.

## T/RS 228 - (P) Parables in Pop Culture

3 cr.

(Prerequisites: T/RS 121, T/RS 122)
This course is designed to help students attend to and interpret the narratives of popular culture from the perspective of Christian faith. We will discuss Jesus' use of parables, engage the theological tradition of "finding God in all things," and analyze a variety of artistic productions (movies, television and music) that represent dominant themes of contemporary culture.

## T/RS 230 - (P) Moral Theology

3 cr.

(Prerequisites: T/RS 121, T/RS 122)
A study of the Catholic moral tradition, its origins, development, key principles and debates. Areas of inquiry include human freedom, happiness, virtue, conscience, divine grace, natural law and the relation between morality and doctrine.

## T/RS 231 - (P) God and the Good Society

3 cr.

(Prerequisites: T/RS 121, T/RS 122)
This course will work to provide a theological assessment of various political, moral, economic and social arrangements that have or might apply in human societies. Attention will be given to different descriptions of the Church's right relation to the nation state, as well as of social justice, foreign relations, and/or legal systems.

## T/RS 232 - (P) Catholic Social Thought

3 cr.

(Prerequisites: T/RS 121, T/RS 122)
An in-depth study of the Catholic perspective on the common good. Readings will be chosen from Augustine, Aquinas, papal social encyclicals and other contemporary sources. Areas of inquiry include the dignity of the human person, natural law and rights, the dialogue with political philosophy, social justice, law and public policy, and the role of the family.

## T/RS 233 - (P) Suffering

3 cr.

(Prerequisites: T/RS 121, T/RS 122)
This course examines the way in which Christians and Jews narrate their suffering in the context of God's purposes. Traditional formulations of "the problem of evil" will be critiqued, and the concept of redemptive suffering will be explored.

## T/RS 234 - (P,D) Peacemakers

3 cr.

(Prerequisites: T/RS 121, T/RS 122)
A study of the some of the principles and methods of "waging peace" found in the lives and writings of key figures, likely including but not limited to Mohandas Gandhi, Dorothy Day, Thomas Merton, and Martin Luther King, Jr.

## T/RS 235 - (P) The Theology of Birth and Death

3 cr.

(Prerequisites: T/RS 121, T/RS 122)
This course will investigate the meaning and significance of the birth and death of human beings in the Christian tradition. Related topics will be: suicide, euthanasia, capital punishment, contraception and abortion.

## T/RS 236 - (P) God and Money

3 cr.

(Prerequisites: T/RS 121, T/RS 122)
An inquiry into the witness of the Church with regard to questions of wealth, business, economics and formulation of public policy. Biblical sources, Church tradition, and contemporary narratives will be employed to assess the common good.

## T/RS 237 - Bible and Law: Separating Church & State in America?

3 cr.

(Prerequisites: T/RS 121 and T/RS 122)
By examining the Bible, historical texts from America's founding, Court cases, and secondary literature, students will investigate how the Bible has influenced First Amendment jurisprudence. Particular emphasis will be placed upon the relationship between biblical exegesis and the legal debates surrounding First Amendment provisions governing "separation of church and state."

## T/RS 241 - (P) Heroes and Villains of the Bible

3 cr.

(Prerequisites: T/RS 121, T/RS 122)
This course will be a theological study of some of the historical books of the Old Testament, especially Joshua, Judges, and the four books concerning kings. Major figures and narratives, like those of King David and the prophet Elijah, will be the main focus.

## T/RS 242 - (P,D) Women in the Bible

3 cr.

(Prerequisites: T/RS 121, T/RS 122)
This course surveys the variety of perspectives on women found in the Bible.

## T/RS 243 - (P,D) Christ & Qur'an

3 cr.

(Prerequisites: T/RS 121 and T/RS 122)
After reviewing historical Christian-Muslim encounters, we examine the Church's position on Islam, doctrinal points of contention, contemporary attempts at understanding Islam in the light of Christian faith, and Muslim attempts at understanding Christianity. There will be opportunity for practical Christian-Muslim dialogue as well. Students should have some background in Islam.

## T/RS 244 - (P,D) The Catholic Church and American Culture

3 cr.

(Prerequisite: T/RS 121 and T/RS 122)
This course will explore major points of conflict (and of harmony) between the official teaching of the Catholic Church and contemporary American culture. Although the historical roots of various conflicts will be traced, the primary emphasis will be on the state of the conflict as we find it today.

## T/RS 245 - (P,D) Islam

3 cr.

(Prerequisites: T/RS 121, T/RS 122)
This course introduces students to elements of diversity and continuity in the scriptures, beliefs, practices, spirituality, history, institutions, philosophies, theologies, and political ideas of Islam. Although the course is text based, students will normally encounter contemporary expressions of Islam through some combination of film, music, site visits, and guest speakers. Alternate Years

## T/RS 246 - (P) Religion, Bodies, and the Brain

3 cr.

(Prerequisites: T/RS 121 and T/RS 122)
This course examines religion and embodiment through the lens of brain science. Religious rituals and practices are studied in light of their impact on the human body. Students will also engage in Ignatian reflection on the relationships pertaining to religion, bodies, and the brain in the context of experiential learning.

## T/RS 250 - (P,D) Latin American Liberation Theology and Beyond

3 cr.

(Prerequisites: T/RS 121, T/RS 122)
The objective of the course is to explore the development of theology within Latin America after the Second Vatican Council (1962-65). Special attention is given the theological, social and political settings of Catholicism in Latin America.

## T/RS 295 - (P,D) Christianity in Africa

3 cr.

(Prerequisites: T/RS 121, T/RS 122)
This travel course takes students to Uganda in East Africa. It covers the life and story of Ugandan Christianity since 1877, including the Uganda martyrs, the relationship between Anglicans and Catholics, and the role of Christian churches in Uganda culture, especially related to education, justice and medicine.

## T/RS 296 - (P,D) Christianity in the Middle East

3 cr.

(Prerequisites: T/RS 121 and T/RS 122)
This travel course is based in Jerusalem and introduces the history of, differences between, and current religious, social, and political situations facing the Christians of the Middle East, with particular focus on the communities in Israel and Palestine.

## T/RS 310 - (P) The Heart of the Old Testament

3 cr.

(Prerequisites: T/RS 121, T/RS 122)
An in- depth look at the five books of Moses (Genesis, Exodus, Leviticus, Numbers and Deuteronomy) using ancient and modern exegetical views to examine and emphasize the central theme of the Covenant.

## T/RS 311 - (P) Job and the Psalter

3 cr.

(Prerequisites: T/RS 121, T/RS 122)
A close look at the wisdom literature of the Old Testament. The study of both the Book of Psalms and the Book of Job will emphasize theological themes.

## T/RS 312 - (P) The Great Prophets

3 cr.

(Prerequisites: T/RS 121, T/RS 122)
An examination of the four major prophets of the Old Testament: Isaiah, Jeremiah, Ezekiel and Daniel, with an emphasis on the study of selected texts.

## T/RS 313 - (P,EPW) Faith and Justice in the Prophetic Tradition

3 cr.

(Prerequisites: T/RS 121, T/RS 122)
The goals of contemporary Jesuit education are the service of faith and the promotion of justice. This course will examine the roots of these ideals in the writings of the OT prophets, with special attention to Isaiah.

## T/RS 314 - (P) Jesus in the Four Gospels

3 cr.

(Prerequisites: T/RS 121, T/RS 122)
A study of the historical, literary and theological significance of Jesus' life and teaching as presented in the four canonical Gospels.

## T/RS 315 - (P.EPW) John's Gospel and Letters

3 cr.

(Prerequisites: T/RS 121, T/RS 122)
A close look at the Fourth Gospel and the Epistles of John with an emphasis on their literary, historical, and theological characteristics.

## T/RS 317 - (P) Pauline Letters

3 cr.

(Prerequisites: T/RS 121, T/RS 122)
An introduction to the writings of the Apostle Paul, exploring Jewish and Greco-Roman influences on his letters as well as his contribution to basic Christian beliefs and practices.

## T/RS 318 - (P) The Apocalypse of St. John

3 cr.

(Prerequisites: T/RS 121, T/RS 122)
This introduction to the last book of the Bible will emphasize the literary forms and thought patterns of apocalyptic literature as well as the historical and theological character of the book itself, highlighting both textual interpretation and contemporary relevance.

## T/RS 319 - (P,D) Judaism in the Time of Jesus

3 cr.

(Prerequisites: T/RS 121, T/RS 122)
A study of first-century Jewish religious sects as well as the cultural, political, and historical setting of the Roman Empire in which Jesus lived and preached and where monotheism continued to develop.

## T/RS 320 - (P) Early Christian Writers

3 cr.

(Pre-requisites: T/RS 121, T/RS 122)
This course is designed to provide an introduction to the main figures, theological currents and ideas of the formative period of the history of Christian theology by a close reading of selected texts from the major authors of the first six centuries of the Church.

## T/RS 323 - (P) Protestant Traditions

3 cr.

(Pre-requisites: T/RS 121, T/RS 122)
This course will examine both historical and contemporary representatives of selected Protestant traditions, focusing on their characteristic understandings of (1) scripture, tradition and knowledge of God; (2) grace, faith and works; and (3) the Church and the Christian life.

## T/RS 324 - (P) Jesuit Spirit

3 cr.

(Pre-requisites: T/RS 121, T/RS 122)
The Society of Jesus (Jesuits): its spirituality, tradition and history from their 16th-century origins in the *Spiritual Exercises* of St. Ignatius of Loyola through the contemporary period, with special emphasis on Jesuit theological and cultural contributions to the Church.

## T/RS 325 - (P) Heaven and Hell

3 cr.

(Pre-requisites: T/RS 121, T/RS 122)
Besides studying the origins of the Christian belief in the afterlife, the course will also focus on Catholic and Protestant formulations of the doctrines of salvation and damnation as well as literary responses to the notions of heaven and hell.

## T/RS 326 - (P) Belief and Unbelief

3 cr.

(Pre-requisites: T/RS 121, T/RS 122)
A multidisciplinary inquiry into the nature of Faith in the Catholic tradition with special attention to the challenges of modernity.

## T/RS 327 - (D,P) Spiritual Classics

3 cr.

(Pre-requisites: T/RS 121, T/RS 122)
A study of influential spiritual/mystical texts about the nature of the self, the meaning and goal of human existence, and the attainment of ultimate happiness. Readings selected by instructor from among the world's religious traditions, including but not limited to Judaism, Christianity, Islam, Hinduism, Buddhism, and Daoism.

## T/RS 328 - (P) The Christian Church

3 cr.

(Pre-requisites: T/RS 121, T/RS 122)
A brief survey of various expressions of the Church's nature and mission throughout its history, from the New Testament through Vatican II. Some contemporary approaches to ecclesiology will be explored, touching on questions regarding what is the true church and its rightful global mission.

## T/RS 329 - (P) Christian Classics

3 cr.

(Formerly INTD 201C)
Each semester of this CSP core course provides a structured opportunity for reading in common some of the major Christian works of literature and spirituality with which every educated Catholic should be familiar. Important Catholic books and significant works of some great men and women who have shaped Christian thought and life will be read and discussed.

## T/RS 330 - (P) Christ in Tradition and Culture

3 cr.

(Pre-requisites: T/RS 121, T/RS 122)
Examines the meaning and message of Jesus Christ as understood and communicated in the faith of his followers with special consideration given to the symbolic dimensions and cultural aspects of that Christian understanding.

## T/RS 331 - (P) God and the Earth

3 cr.

(Pre-requisites: T/RS 121, T/RS 122)
This course will explore the way human beings relate to the land and to other life forms and how this relationship is affected by belief in God. Biblical and other theological texts from Christianity and other religious traditions will be considered.

## T/RS 332 - (P,D,EPW) Theology and Disability

3 cr.

(Prerequisites: T/RS 121 and T/RS 122)
This course considers the ethical issues surrounding human disability from a theological perspective, engaging various accounts of human identity, dignity and fulfillment from the perspective of the Christian moral tradition. In particular, it examines how some common ethical responses to disability conflict with modern accounts of equality and civil rights.

## T/RS 333 - (P) Friendship and the Christian Life

3 cr.

(Pre-requisites: T/RS 121, T/RS 122)
This course will explore friendship as a central practice of the Christian life, especially the moral and spiritual life, and examine virtues such as fidelity, forgiveness, and love which are essential for sustaining and nurturing friendships.

## T/RS 334 - (P,D) The Church and Contemporary Social Issues

3 cr.

(Pre-requisites: T/RS 121, T/RS 122)
Explores the religious and ethical dimensions of social issues such as prejudice and violence. The findings of related social sciences and literature are placed in the context of Christian anthropology to give the student a concrete view of their interrelationship. (Credits may not be earned for T/RS 334 and SOC 212.)

## T/RS 335 - Virtue, Vice and Christian Ethics

3 cr.

(Pre-requisites: T/RS 121, T/RS 122)
This course will consider virtues and vices from the perspective of the Christian vision, comparing them to other popular visions in the ancient and/or modern world. Other related topics to be treated include human freedom, action, happiness, sin, and moral truth.

## T/RS 336 - (P,D) The Jewish Way of Life

3 cr.

(Pre-requisites: T/RS 121, T/RS 122)
As a global introduction to Judaism this course will examine: essential beliefs, holidays and life ceremonies, Jewish history and modern Judaism, especially the Holocaust, the State of Israel and the Coming to America.

## T/RS 337 - (P,D) Jewish Approaches to Ethics

3 cr.

(Pre-requisites: T/RS 121, T/RS 122)
A survey of Jewish approaches to ethics and ethical problems with comparisons to other religious traditions and the writing of secular ethicists.

## T/RS 338 - (P,D) Psychology and Spirituality

3 cr.

(Pre-requisites: T/RS 121, T/RS 122, PSYC 110)

This course explores selected Christian and Buddhist traditions of spirituality as understood by their practitioners and from the perspective of representative theorists or schools of Western psychology. The course concludes by assessing positive and negative aspects of these psychological approaches to understanding and evaluating spiritual experience.

## T/RS 339 - Eastern Christian Spirituality

3 cr.

(Pre-requisites: T/RS 121, T/RS 122)
A study of the meaning of the spiritual life for Eastern Christian writers with a particular emphasis upon St. Athanasius, Gregory of Nyssa and Gregory Palamas. Themes such as prayer, image of and likeness with God, discernment of spirits, hesychasm and icons will be discussed.

## T/RS 340 - (P) Theologies of Work and Rest

3 cr.

(Prerequisites: T/RS 121 and T/RS 122)
This course explores the religious and social significance of work and rest in ancient Greek philosophy, the Bible, and Catholic social teaching. We will consider issues of "burn out," workaholism, and restlessness in modern life. Students are encouraged to re-examine their own approaches to working and resting.

## T/RS 341 - (P) Faith and Fiction

3 cr.

(Pre-requisites: T/RS 121 and T/RS 122)
The course will explore both how theological ideas and religious faith (or its absence) give shape to fictional worlds and lives in a variety of short stories and novels, and how theological themes can be explored by means of imaginative literature.

## T/RS 342 - (P) Science and the Common Good

3 cr.

(Prerequisites: T/RS 121 and T/RS 122)
This course explores the possibility of being "men and women for and with others" in the context of scientific inquiry, whether as students or as future career scientists, through an introduction to the Catholic notion of commitment to the common good and its implications for science.

## T/RS 410 - Salvation Outside the Church?

3 cr.

Prerequisites: enrollment in Theology M.A. program or T/RS 121 and T/RS 122)
An historical and Catholic-theological engagement with key questions in relation to religious pluralism such as: Can non-Christians be saved? Does God intend the existence of many religions? What status do non-Christian religions have vis-a-vis the Church? What may Christians learn from non-Christian religious traditions?

## T/RS 440 - Introduction to Old Testament

3 cr.

(Pre-requisites: T/RS 121, T/RS 122)
An introduction to the primary methods and problems of Old Testament interpretation: its historical background, the theological analysis and synthesis of major sections, as well as the use of source, form, and redaction criticism and such more recently developed approaches as social, scientific, literary and feminist criticism.

## T/RS 441 - Inside the New Testament

3 cr.

An introduction to the primary methods and problems of New Testament interpretation focusing on the contents, historical background and theological import of major passages. Among the specific topics studied will be from and redaction criticism along with recent critical approaches to the text such as structuralist exegesis, narrative and feminist criticisms.

## T/RS 445 - Pastoral Theology

3 cr.

(Pre-requisites: T/RS 121, T/RS 122)
This course is based on the assumption that when done properly, all theology is pastoral. Throughout the course, students will "read" both the liturgy and classical theological texts in a pastoral way, as well as reflect theologically on their own pastoral experience. It will be conducted in seminar format.

## T/RS 480 - Internship

1-3 cr.

(Prerequisite: junior standing, 15 credits of Theology/Religious Studies)
Theology majors and minors can receive credits for a variety of ministerial experiences. Approval must be obtained beforehand from supervising faculty member and chairperson. Internship credits can be placed in the cognate or free area; they do not count toward the 30 credits needed for a Theology major or the 18 credits needed for a Theology minor.

## T/RS 490 - Theology Capstone Seminar

3 cr.

(Prerequisite: 12 credits of Theology/Religious Studies).
A capstone seminar required for Theology majors, recommended for minors and available to other qualified students with permission of instructor. Topics will vary from semester to semester depending on student interest and faculty expertise. The use of primary sources and research appropriate to the specific topic will be emphasized. Students may take more than one semester of this course.

## THTR 110 - (CL) Introduction to Theatre

3 cr.

An introduction to the theories and practices of the theatre arts. Dramatic structure, dramatic literature, critical writing, acting, directing, design, practical stagecraft, and some theatre history will all be touched on in an effort to introduce students to the fullness and variety of the art of theatre.

## THTR 121 - Introduction to Technical Theatre

3 cr.

(Formerly THTR 112)
This course introduces the student to the materials, equipment, and techniques used in the construction and finishing of stage sets, including lighting, sound, and special effects. Forty hours of lab work and participation on a crew for a major University Players production will be required.

## THTR 151 - (CA) Introduction to Acting

3 cr.

(Formerly THTR 111)
A Stanislavski-based system ("Acting is Doing") develops the student's ability to act with believability and honesty. Through exercises, improvisations, and a scene, the student discovers the technique of "making choices" based both on the self and on fictional characters.

## THTR 211 - (CL) Theatre History I

3 cr.

A chronological study of western theatre from ancient Greek drama to 17th-century British drama. A selection of plays from representative playwrights will be read and discussed with an emphasis on the social, cultural, and theatrical contexts within which these playwrights lived and worked.

## THTR 212 - (CL) Theatre History II

3 cr.

(Theory Intensive)
A chronological study of Western theatre from the middle 17th century to the present. A selection of plays from representative playwrights will be read and discussed, with an emphasis on the social, cultural, and theatrical contexts within which these playwrights lived and worked.

## THTR 213 - (CA) Design for the Theatre

3 cr.

(Prerequisite: THTR 121 with a grade of B- or higher)
An introduction to the various design and production elements in theatre. Scenery, lighting, costumes, projections, props and sound will be explored. Students participate in the design elements of the University productions.

## THTR 214 - Drama Practicum

3 cr.

(Prerequisite: any other course that may be counted in the Theatre minor)
Work on one of the major aspects of producing or creating a play including acting, costuming, set construction, designing, lighting, publicity, playwriting, and box-office management. "A one-time repeatable course."

## THTR 215 - (EPW, CA) Playwriting I

3 cr.

This course is designed to teach students the basic elements and techniques involved in writing for theatrical performance. Students will write either a one-act play or one act of a two- or three-act play. This course may be counted toward the Theatre Major, Minor, or Track. Photocopying fee. (Credit cannot be earned for WRTG 215 and THTR 215.)

## THTR 221 - Scene Painting

3 cr.

(Prerequisite: THTR 121 with a grade of B- or higher)
This course is designed as a focused study of the tools and techniques used by scenic artists to create visual elements for theatre production. The lecture portion of the course involves a study of materials, color theory, and historical and contemporary painting perspectives. Offered every other year.

## THTR 225 - Solo Performance

3 cr.

All you need for solo performance is an audience and a performer; however, solo performance represents some of the most challenging, sophisticated, and courageous performance happening today. Students will actively create their own solo performances through analyzing the work of establishing solo artists and exploring their own creative acts. (Students cannot earn credit for THTR 225 and WRTG 225).

## THTR 231 - Lighting Design

3 cr.

(Prerequisite: THTR 121)
This course explores lighting equipment and technology, color theory, script analysis, and collaborative production skills. Students will work in both theoretical and practical contexts, creating projects that explore the controllable qualities and functions of stage lighting. Offered every other year.

## THTR 251 - Intermediate Acting

3 cr.

(Formerly THTR 210) (Prerequisite: THTR 121 & THTR 151)
The student actor develops a stronger grasp of Stanislavski's system of Objectives and Beats. Scene work requires the actor to explore theatrical realism as practiced by Miller, Williams, Inge, Chekhov, and Ibsen. Offered every other semester.

## THTR 252 - Voice and Speech

3 cr.

(Prerequisites: THTR 110 and THTR 151)
Extensive use of exercises to develop an actor's healthy voice production and competence with Standard American Speech. Vocal projection for the stage and the use of one's voice for comprehension and theatricality are explored through dramatic, non-dramatic, and commercial voice-over material. Offered every other year.

## THTR 253 - Stage Combat

3 cr.

(Formerly THTR 111) (Prerequisites: THTR 110 & THTR 151)
This course teaches safe and effective techniques for theatrical combat, seen in plays from Shakespeare to Shepard. Student actors will explore both unarmed fighting and rapier-and dagger swordplay in preparation of an acting scene for public performance.

## THTR 275 - Continental European Drama, 1880 - 1960

3 cr.

(Theory Intensive)(Prerequisites: ENLT 140 or equivalent or THTR 110)
This course surveys the emergence of naturalism and the developments of drama in the European continent at the end of the 19th century into the mid-twentieth century. The works studied illustrate various attempts to recreate realities on stage and explore how philosophy influenced theatrical expression. (All readings in English.) Alternate Years

## THTR 280 - Production Laboratory

1 cr.

Theatre majors working on University Players productions can receive credit for serving as props master, master electrician, sound designer, assistant technical director, assistant stage manager, or running crew. Forty hours of production work and strict adherence to deadlines required. May be taken for credit up to five times.

## THTR 310 - Theories of Theatre

3 cr.

Students will study the theories of theatre advanced in the writing of Diderot, Archer, Stanislavsky, Vakhtangov, Brecht, Copeau, Artaud, Grotowski, Brook, and Schechner.

## THTR 311 - Directing I

3 cr.

(Prerequisites: THTR 110 and THTR 151)
The student will be introduced to the tools used by stage directors to tell stories with actors in space and time. Students will analyze scripts and learn how to use those analyses in telling a story from moment to moment. Students will direct a ten-minute play for public performance. Offered every fourth semester.

## THTR 315 - Playwriting II

3 cr.

(Prerequisite: THTR 215)
This advanced workshop builds on the skills acquired in Playwriting I, and includes intensive reading and writing assignments that encourage students to explore theatrical styles beyond realism. This course may be counted toward the Theatre major, minor or track. Photocopying fee.(Credit cannot be earned for WRTG 315 and THTR 315.)

## THTR 331 - Set Design for the Theatre

3 cr.

(Formerly THTR 313) (Prerequisite: THTR 213 with a grade of B- or higher)
An exploration of the basic crafts of the theatrical set designer. Concentration on developing one's personal vision and interpretive skills through script analysis. Practice in sketching, drafting, painting, collage, model making and typical stage construction. Introduction to environmental theatre.

## THTR 351 - Advanced Acting

3 cr.

(Formerly THTR 410) (Prerequisite: THTR 121: THTR 151 & THTR 251)
Advanced work in Stanislavski's system of acting with the addition of personalized work, including techniques for generating inner images and accessing the actor's emotional life. The class will include scene work, but will focus mostly on monologue study for graduate school and professional auditions.

## THTR 370 - Technical Theatre: Special Topics

3 cr.

Topic and prerequisites will be announced prior to preregistration.

## THTR 371 - Theatre Design: Special Topics

3 cr.

Topic and prerequisites will be announced prior to preregistration.

## THTR 372 - Dramatic Literature: Special Topics

3 cr.

Topic and prerequisites will be announced prior to preregistration.

## THTR 373 - Acting: Special Topics

3 cr.

(Prerequisite: THTR 151)
Topic and prerequisites will be announced prior to preregistration. Past topics include actor's movement, voice and speech, stage combat.

## THTR 380 - Advanced Production Lab

2 cr.

(Prerequisites: 2 cr. of THTR 280, permission of the instructor.)
Theatre majors who work on University Players productions can receive credit for stage management, technical or design work, acting or directing. 80 hours of production work and strict adherence to dead-lines required. May be taken for credit only once.

## THTR 382 - Independent Study in Theatre

1.5 cr.

A tutorial program open to junior and senior students who have completed appropriate lower-division coursework.

## THTR 383 - Independent Study in Theatre

1.5 cr.

A tutorial program open to junior and senior students who have completed appropriate lower-division coursework.

## THTR 411 - Directing II

3 cr.

(Prerequisites: B- or higher in THTR 311 or permission of instructor.)
Advanced study of rehearsal techniques, directing methods and styles, and effective director-actor relationships. Students will direct a 20-30 minute one act or excerpt for the Director’s Workshop as part of the University Players season.

## THTR 480 - Internship

Variable Credit

Theatre majors or minors can receive credit for a variety of on-the-job work experience. Approval must be obtained beforehand from the supervising faculty member, chair, and dean.

## THTR 482 - Independent Study in Theatre

1.5 cr.

A tutorial program open to junior and senior students who have completed appropriate lower-division coursework.

## THTR 483 - Independent Study in Theatre

1.5 cr.

A tutorial program open to junior and senior students who have completed appropriate lower-division coursework.

## THTR/ENLT 275 - (CL) Continental European Drama 1880 - 1960

3 cr.

(Theory Intensive) (Prerequisites: ENLT 140 or equivalent or THTR 110)
This course surveys the emergence of naturalism and the developments of drama in the European continent at the end of the 19th century into the mid-twentieth century. The works studied illustrate various attempts to recreate realities on stage and explore how philosophy influenced theatrical expression. (All readings in English.)

## THTR/ENLT 276 - (CL) American Drama, 1916-1968

3 cr.

(Theory Intensive) (Prerequisites: ENLT 140 or equivalent or THTR 110)
The rise of the United States as a world power is reflected in the American theatre of this period. The reading list includes both plays & musicals; the works themselves explore issues of cultural identity, gender roles, & racial conflicts as they pertain to our understanding of the American dream.

## THTR/ENLT 277 - (CL,D) American Drama, 1968 - 2011

3 cr.

(Theory Intensive) (Prerequisite: ENLT 140 or equivalent or THTR 110)
This course focuses on exploring and encountering literature that has shaped American theatre between the Vietnam era & 9/11 attacks. Some recurring issues include the Cold War; AIDS; patriotism & the counter-culture; ethnic, sexual, & gender identities; & the demise of the American dream.

## WOMN 215 - (D) Feminism and Social Change

3 cr.

This course examines the relationship between feminism and social change, studying feminist movements and how feminist ideologies, strategies, and individuals influence social movements. Counter-movements and the impact of feminism on society and on individuals will also be studied. It fulfills a Women's Studies foundational course requirement. (Credit cannot be earned for SOC 315 and WOMN 215)

## WOMN 380-381 - Women's and Gender Studies Internships

3 - 6 cr.

(Prerequisites: one of the following: PHIL 218, PHIL 231, SOC 220, WOMN 215/SOC 315 or permission of Women's Studies Program Committee)
Designed to broaden the educational experience of students by providing practical experience for them in various non-profit and other organizations that deal primarily with women's issues or women clients. Students will ordinarily be expected to write a reflection paper. Supervision by faculty members and agency supervisor.

## WRTG 105 - College Writing I

3 cr.

(Placement into 105 required)
The first of a two-course sequence that fulfills the EP Level I: Foundational First-Year Writing, this course combines the study of the elements of style and grammar with instruction in structuring and supporting argumentative essays. Students develop techniques for making effective contributions to intellectual discussions, academically and in other cultural settings.

## WRTG 106 - (FYW) College Writing II

3 cr.

(Prerequisite: WRTG 105)
The second of a two-course sequence that fulfills EP Level I: Foundational First-Year Writing, this course concentrates on investigating problems, creating arguments, and providing evidence in academic essays. Students develop techniques for making effective contributions to intellectual discussions, academically and in other cultural settings.

## WRTG 107 - (FYW) Composition

3 cr.

Students develop techniques for making effective contributions in writing to intellectual discussions, academically and in other cultural settings. Students are tasked with forming the strong foundation in critical reading, thinking, writing, researching, and reflecting necessary for expressing ideas in a variety of rhetorical situations.

## WRTG 140 - (FYOC, FYDT) Digital Writing

3 cr.

Students will enhance their rhetorical awareness as they compose in a variety of genres and media (visual, audio, and digital) beyond basic print text. Drawing on Rhetoric and Composition theories, multimodal writing highlights the process of "*act* composing" and increases the modalities students use to communicate effectively with different audiences.

## WRTG 210 - (EPW) Advanced Composition

3 cr.

The purpose of this course is to review, practice and apply the principles of a rhetoric of order, stressing invention, disposition, style, tone and theme.

## WRTG 211 - (EPW) Writing for the Workplace

3 cr.

A course in scientific or technical writing designed to help students improve their writing skills in preparation for their professions. Specialized training is offered in writing of proposals, reports, instructions, letters, abstracts, resumes, etc.

## WRTG 212 - Writing for the Law

3 cr.

This course aims to help the student develop the writing skills that will be of particular value to prospective lawyers. Readings, exercises, and assignments stress precision and conciseness as well as careful argument. The course should also be valuable to any student who wants to improve his/her analytical ability.

## WRTG 213 - (EPW) Fiction Writing I

3 cr.

Designed to increase students' skills in writing short fiction, this course augments frequent practice in the genre with attention both to theories of short-story composition and to diverse examples. In a workshop atmosphere, students will read and discuss one another's work as well as fiction by well-known authors. Photocopying fee.

## WRTG 214 - (EPW) Creative Nonfiction Writing I

3 cr.

Designed to develop skills in writing creative nonfiction prose, this course employs a workshop format and requires intensive reading and analysis of student work as well as work by noted practitioners such as Orwell, Baldwin, Didion, and Dillard.

## WRTG 215 - (EPW, CA) Playwriting I

3 cr.

This course is designed to teach students the basic elements and techniques involved in writing for theatrical performance. Students will write either a one-act play or one act of a two- or three-act play. This course may be counted toward the Theatre Major, Minor, or Track. Photocopying fee.

(Credit cannot be earned for WRTG 215 and THTR 215.)

## WRTG 216 - (EPW) Poetry Writing I

3 cr.

Theory and practice of writing poems. Opportunity for sustained, serious responses to student work and practical advice on publishing, graduate programs, etc. The course employs a workshop format and expects students to possess facility with language and a love of reading and writing. Photocopying fee.

## WRTG 218 - Writing the Web

3 cr.

Students will analyze both the visual and textual contents of e-mail, news groups, chat groups, MUs, and Web sites, and will be expected to produce a portfolio or Web site that demonstrates their ability to work in this new medium. Discussion topics include ethical issues unique to the Internet writing environment.

## WRTG 223 - Rhetoric & Public Discourse

3 cr.

(Prerequisites: Completion of the GE Written Communication requirement)
Students will study rhetorical theory, the culture of US public discourse and political deliberation through various media outlets, and writing processes in order to participate more effectively in current political and democratic debates. Assignments address both the production and consumption of texts through the news media.

## WRTG 224 - (EPW) Rhetoric & Social Media

3 cr.

(Theory Intensive) (Prerequisites: Completion of the GE Written Communication requirement)
Students will study rhetorical theory, the culture of social media, and information literacy in order to enhance their communication skills and persuasive abilities in social media environments. Assignments address both the production and consumption of texts in these sites. Possible discussion topics include identity construction, privacy/surveillance, and functional literacy.

## WRTG 225 - Solo Performance

3 cr.

All you need for solo performance is an audience and a performer; however, solo performance represents some of the most challenging, sophisticated, and courageous performance happening today. Students will actively create their own solo performances through analyzing the work of establishing solo artists and exploring their own creative acts. (Students cannot earn credit for WRTG 225 and THTR 225.)

## WRTG 235 - Fundamentals of Screenwriting

3 cr.

(Pre-requisites: Completion of the GE Written Communication requirement.)
This course is designed to expose students to the basic principles of reading and writing film scripts. Through analysis of film and a writer's workshop approach, students will engage with the craft of cinematic storytelling and write a short film.

## WRTG 310 - Strategies for Teaching Writing

3 cr.

(Theory Intensive)
This course for English/Education majors emphasizes strategies for taking students into, through, and beyond the writing process. Students have many opportunities to plan and to design writing assignments, to conduct writing sessions, and to evaluate written composition.

## WRTG 313 - Fiction Writing II

3 cr.

(Prerequisite: WRTG 213)
The advanced workshop augments intensive student writing assignments with theoretical discussions and diverse examples of good fiction by established writers. Photocopying fee.

## WRTG 314 - Creative Nonfiction Writing II

3 cr.

(Prerequisite: WRTG 214)
The advanced workshop augments intensive student writing assignments with discussion and analysis of creative nonfiction by various hands.

## WRTG 315 - Playwriting II

3 cr.

(Prerequisite: WRTG 215)
This advanced workshop builds on the skills acquired in Playwriting I, and includes intensive reading and writing assignments that encourage students to explore theatrical styles beyond realism. This course may be counted toward the Theatre major, minor or track. Photocopying fee. (Credit cannot be earned for THTR 315 and WRTG 315.)

## WRTG 316 - Poetry Writing II

3 cr.

(Prerequisite: WRTG 216)
Advanced workshop on practice and theory of writing poetry. The course encourages extensive reading and intensive writing. Photocopying fee.

## WRTG 382 - Guided Independent Study

Variable Credit

A tutorial program open to junior and senior students who have completed appropriate lower-division coursework. Context determined by genre and mentor.

## WRTG 383 - Guided Independent Study

Variable Credit

A tutorial program open to junior and senior students who have completed appropriate lower-division coursework. Context determined by genre and mentor.

## WRTG 480 - Internship

Variable Credit

English majors and/or Writing minors can receive internship credits for a variety of on-the-job experiences. Approval must be obtained beforehand from the supervising faculty member, chair and dean.

## WRTG 482 - Guided Independent Study

Variable Credit

A tutorial program open to junior and senior students who have completed appropriate lower-division coursework. Context determined by genre and mentor.

## WRTG 483 - Guided Independent Study

Variable Credit

A tutorial program open to junior and senior students who have completed appropriate lower-division coursework.

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For more information, visit the President's Cabinet website.

* *Names in* **bold type** *are officers of the University Corporation.*

**Jeffrey P. Gingerich, Ph.D.**

*Provost/Senior Vice President for Academic Affairs*

**Edward J. Steinmetz, Jr. C.P.A.**

*Senior Vice President for Finance & Administration*

**Robert W. Davis, Jr., Ed.D.**

*Vice President for Student Life*

**Robert B. Farrell, J.D., Ed.D.**

*General Counsel*

**Herbert B. Keller, S.J.**

*Vice President for Mission and Ministry*

**Thomas S. MacKinnon**

*Vice President for University Advancement*

**Patricia L. Tetreault, SPHR, SHRM-SCP**

*Vice President for Human Resources*

**Gerald C. Zaboski**

*Vice President for Enrollment Management & External Affairs*

Susan G. Bowen

*Associate Vice President for Information Technology & Chief Information Officer*

Elizabeth M. Garcia, Esq.

*Special Assistant to the President, Executive Director, Office of Equity and Diversity and Title IX Coordinator*

# Officers of Administration

** The designation D. et U. is an indication of the Pro Deo et Universitate Award, given for 20 or more years of service to the University.*

## Office of the President

**Scott R. Pilarz, S.J. (2003)**

*President of the University (2003-2011, 2018)*
A.B., Georgetown University
M.A., Fordham University
M.Div., Th.M., Weston Jesuit School of Theology
Ph.D., City University of New York

## Academic Affairs

**Jeffrey P. Gingerich (2018) — Send an email**

*Provost/Senior Vice President for Academic Affairs (2018)*
B.A., Eastern Mennonite University
A.M., Ph.D., University of Pennsylvania

**David E. Marx, D. et U.* (1987) — Send an e-mail**

*Interim Associate Provost of Academic Affairs (2020)*
*Associate Professor, Chemistry (1992)*
B.S., East Stroudsburg University
Ph.D., Binghamton University

**Sam Beldona (2019) — Send an email**

*Dean, Kania School of Management (2019)*
B.Sc., MBA, Karnatak University
M.S., Ph.D., Temple University

**Michelle Gonzalez Maldonado (2020) - Send an email**

*Dean, College of Arts and Sciences (2020)*
B.S., Georgetown University
M.A., Union Theological Seminary
Ph.D., Graduate Theological Union

**Debra A. Pellegrino (2007) — Send an email**

*Dean, Panuska College of Professional Studies (2007)*
*Professor, Education (2007)*
B.S., M.Ed., Indiana University of Pennsylvania
Ed.D., Saint Louis University

**Murli Rajan, D. et U.* (1989) — Send an email**

*Associate Dean, Kania School of Management (2014)*
*Associate Professor, Economics/Finance (1995)*

B.C.A., Victoria University
M.Comm., Delhi School of Economics, University of Delhi
M.B.A., The University of Scranton
Ph.D., Temple University

**Victoria Castellanos (2012) — Send an email**

*Associate Dean, Panuska College of Professional Studies (2012)*
B.S., Montana State University
M.S., Ph.D., University of California

**Harry R. Dammer (2002) — Send an email**

*Associate Dean, College of Arts and Sciences (2017)*
*Professor, Sociology/Criminal Justice (2006)*
B.S., M.S., University of Dayton
Ph.D., Rutgers University School of Criminal Justice

**Jean Lenville (2012) — Send an email**

*Interim Dean, Library (2019)*
B.S., Emerson College
M.S., Simmons College

**Julie Ferguson (2016) — Send an email**

*Registrar (2016)*
B.S., SUNY Geneseo
M.S., Rockefeller College

**Gregory W. Jordan (2019) – Send an email**

*Executive Director, Center for Humanities, College of Arts and Sciences (2019)*
B.A., Williams College
M.F.A., City College of San Francisco
J.D., Georgetown University

## Enrollment Management & External Affairs

**Gerald C. Zaboski, D. et U.* (1988) — Send an email**

*Vice President for Enrollment Management & External Affairs (2019)*
B.A., M.S., The University of Scranton

**Joseph M. Roback (2000) — Send an email**

*Associate Vice Provost of Admissions and Undergraduate Enrollment (2006)*
B.S., Marywood University
M.S., The University of Scranton

**Mary Kay Aston, D. et U.* (1993) — Send an email**

*Assistant Vice Provost for Admissions and Enrollment (2012)*
B.S., Marywood University
M.S., The University of Scranton

**Julie Schumacher Cohen, (2010) — Send an email**

*Assistant Vice President for Community Engagement and Government Affairs (2019)*
B.A., Gordon College
MPA, Villanova University

## Finance & Administration

**Edward J. Steinmetz, D. et U.* (1991) — Send an email**

*Senior Vice President for Finance & Administration (2012)*
B.S., M.B.A., The University of Scranton

**Patrick Donohue (2004) — Send an email**

*Assistant Vice President for Budget and Financial Planning (2009)*
B.S., The University of Scranton

**James L. Caffrey (2016) — Send an e-mail**

*Associate Vice President for Facilities Operations (2016)*
B.S., M.B.A., Wilkes University

**Susan Bowen (2016) — Send an email**

*Associate Vice President for Information Technology & Chief Information Officer (2016)*
B.S., M.A., The College of New Jersey

## General Counsel

**Robert B. Farrell (2008) — Send an email**

*General Counsel (2010)*
A.B., College of the Holy Cross
J.D., Dickinson School of Law

**Nancy Dolan (2008) — Send an email**

*Associate General Counsel (2010)*
B.S., The University of Scranton
J.D., Temple University School of Law

## Human Resources

**Patricia L. Tetreault (2009) — Send an email**

*Vice President for Human Resources (2018)*
A.S., B.S., M.B.A., The University of Scranton

**Elizabeth M. Garcia (2018) — Send an email**

*Executive Director, Office of Equity and Diversity (2018)*
B.A., Wheaton College
J.D., Temple University

## Institutional Effectiveness

**Kathryn Yerkes (2004) — Send an e-mail**

*Assistant Vice Provost for Planning/Institutional Effectiveness (2014)*
B.A., King's College
M.A., The University of Scranton

## Mission and Ministry

**Herbert B. Keller, S.J. (1997) — Send an email**

*Vice President for Mission and Ministry (2019)*
B.A., P.D.E., Fordham University
M.Div., Weston School of Theology

**Patrick D. Francis Rogers, S.J. (2017) — Send an email**

*Executive Director, The Jesuit Center (2017)*
B.S., Towson University
M.A., Fordham University
M.Div., Jesuit School of Theology at Berkeley
DLS, Georgetown University

**Helen Wolf (2014) — Send an email**

*Director for Campus Ministries*
*B.A., Pace University*
M.S.Ed., Queens College of New Rochelle
M.A., Ph.D., Fordham University

## Student Life

**Robert W. Davis, Jr. (2006) — Send an email**

*Vice President for Student Life (2018)*
B.S., M.S., M.B.A. The University of Scranton
Ed.D., University of Pennsylvania

**Lauren Scott Rivera (2009) — Send an e-mail**

*Assistant Vice President for Student Life and Dean of Students (2018)*
B.A., Bucknell University
M.E., J.D., The Pennsylvania State University

**Donald J. Bergmann (2010) — Send an email**

*Director of Public Safety and Chief of Police (2010)*
B.S., Northeastern University
M.S., Keuka College

**David L. Martin (2015) — Send an email**

*Director of Athletics (2015)*
B.A., Wilkes University
M.S., Misericordia University

## University Advancement

**Thomas S. MacKinnon (2018) — Send an email**

*Vice President for University Advancement*
B.A., Fordham University

## Jesuit Community at Scranton

**Eugene A. Nolan, S.J. (2016) — Send an email**

*Administrator/Minister/Guestmaster of the Jesuit Community*
B.A., M.A., Fordham University

## Administration Emeriti

**Robert W. Burke, M.S., D. et U.* (1961-96)**

*Director of Personnel Emeritus*

**David E. Christiansen, M.B.A., D. et U.* (1987-2008)**

*Vice President Emeritus for Finance and Treasurer*

**Charles E. Kratz, M.A., M.L.S., D. et U.* (1991)**

*Dean Emeritus for the Weinberg Memorial Library*

**Bernard R. McIlhenny, S.J., M.A., S.T.B., D. et U.* (1958-97)**

*Dean of Admissions Emeritus*

**Bonnie Strohl, D. et U.* (1985)**

*Associate Dean Emeritus for the Weinberg Memorial Library*

**Robert J. Sylvester, M.A. (1983-2001)**

*Vice President Emeritus for Institutional Advancement*

## Faculty Emeriti

**Patricia A. Bailey, R.N., Ed.D. (1983-2001)**

*Department of Nursing*

**Harold W. Baillie, Ph.D., D. et U.* (1978-2018)**

*Department of Philosophy*

**Galen L. Baril, Ph.D., D. et U.* (1975-2008)**

*Department of Psychology*

**John Begley, S.J., S.T.D., D. et U.* (1975-79; 1985-2006)**

*Department of Theology/Religious Studies*

**John A. Beidler, Ph.D., D. et U.* (1964-2018)**

*Department of Computing Sciences*

**James Brian Benestad, M.A., D. et U.* (1976-2014)**

*Department of Theology/Religious Studies*

**Robert M. Bessoir, D. et U.* (1968-2007)**

*Department of Exercise Science and Sport*

**Gerald Biberman, Ph.D., D. et U.* (1981-2012)**

*Department of Management/Marketing*

**Mrigen Bose, Ph.D., D. et U.* (1968-2002)**

*Department of Economics/Finance*

**Alan L. Brumagim, Ph.D., D. et U.* (1990-2018)**

*Department of Management, Marketing & Entrepreneurship*

**James P. Buchanan, Ph. D., D.et U.* (1977-2018)**

*Department of Psychology*

**Cynthia W. Cann, Ph.D, D. et U.* (1994-2014)**

*Department of Management, Marketing & Entrepreneurship*

**Michael C. Cann, Ph.D., D. et U.* (1975-2017)**

*Department of Chemistry*

**Michael D. Carey, Ph.D., D. et U.* (1978-2017)**

*Department of Biology*

**Ellen Miller Casey, Ph.D., D.et U.* (1969-2009)**

*Department of English and Theatre*

**Stephen J. Casey, M.A., D. et U.* (1969-2009)**

*Department of Theology and Religious Studies*

**Timothy K. Casey, Ph.D., D. et U.* (1987)**

*Department of Philosophy*

**Leonard Champney, Ph.D., D. et U.* (1979-2017)**

*Department of Political Science*

**Ying I. Chien, Ph.D., D. et U.* (1979-2009)**

*Department of Operations Management*

**Jafor Chowdhury, Ph.D., D.et U." (1987-2020)**

*Department of Management, Marketing & Entrepreneurship*

**Joseph F. Cimini, J.D., D. et U.* (1987-2016)**

*Department of Sociology, Criminal Justice & Criminology*

**Joseph W. Connolly, Ph.D., D. et U.* (1983-2017)**

*Department of Physics/Electrical Engineering*

**Willis M. Conover, Ed.D., D. et U.* (1978-2009)**

*Department of History*

**John R. Conway, Ph.D., D. et U.* (1985-2016)**

*Department of Biology*

**Frank P. Corcione, Ph.D., D. et U.* (1978-79; 1982-2009)**

*Department of Economics/Finance*

**James J. Cunningham, Ed.D., D. et U.* (1968-1997)**

*Department of Counseling/Human Services*

**Ronald W. Deitrick, Ph.D., D et U.* (1998-2016)**

*Department of Exercise Science and Sport*

**Michael D. DeMichele, Ph.D., D. et U.* (1967-2018)**

*Department of History*

**Linda H. Desmond, R.N., D. et U.* (1987-2007)**

*Department of Nursing*

**Trudy A. Dickneider, Ph.D., D. et U.* (1984-2013)**

*Department of Chemistry*

**Anthony J. DiStefano, Ph.D., D. et U.* (1968-2002)**

*Department of Physics/Electrical Engineering*

**Katie S. Duke, M.S., D. et U.* (1985-2008)**

*Library*

**John J. Dunstone, Ph.D., D. et U.* (1966-2006)**

*Department of Psychology*

**Mary F. Engel, Ph.D., D. et U.* (1986)**

*Department of English and Theatre*

**Paul P. Fahey, Ph.D., D et U.* (1968)**

*Department of Physics/Electrical Engineering*

**Rith P. Fleming-Castaldy, Ph.D., D. et U.* (2002)**

*Department of Occupational Therapy*

**Joseph A. Fusaro, Ed.D., D. et U.* (1974-2009)**

*Department of Education*

**Rosellen M. Garrett, Ph.D., CRNP, D. et U.* (1980-2004)**

*Department of Nursing*

**A. John Giunta, Ph.D., D. et U.* (1960-1993)**

*Department of Economics/Finance*

**Ralph W. Grambo Jr., Ph.D., D. et U.* (1973-2007)**

*Department of Economics/Finance*

**Ronald J. Grambo, Ph.D., D. et U.* (1976-77; 1980-2016)**

*Department of Accounting*

**Patricia A. Gross, Ed.D., (2003-2013)**

*Department of Education*

**Joyce G. Hanks, Ph.D. (1989-2007)**

*Department of Foreign Languages/Literatures*

**David Hair, M.S., D. et U.* (1986-2016)**

*Department of Exercise Science and Sport*

**Michael A. Hardisky, Ph.D., D. et U.* (1984 - 2019)**

*Department of Biology*

**Patricia Harrington, Ed.D., D. et U.* (1978)**

*Department of Nursing*

**John M. Hill, M.A., D. et U.* (1981-2018)**

*Department of English and Theatre*

**Thomas P. Hogan, Ph.D., D. et U.* (1985-2018)**

*Department of Psychology*

**Frank X. J. Homer, Ph.D., D. et U.* (1968-2009)**

*Department of History*

**John S. Hopkins, M.S., D. et U.* (1967-2009)**

*Department of Exercise Science and Sport*

**Riaz Hussain, Ph.D., D. et U.* (1967-2018)**

*Department of Economics/Finance*

**Elizabeth J. Jacob, Ph.D. (1998-2017)**

*Department of Counseling and Human Services*

**Bernard J. Johns, D. et U.* (1961-2005)**

*Department of Mathematics*

**Prasadarao V. Kakumanu, Ph.D., D. et U.* (1978-2009)**

*Department of Operations Management*

**John R. Kalafut, M.S., D. et U.* (1965-2008)**

*Department of Physics/Electrical Engineering*

**Thomas A. Kamla, Ph.D., D. et U.* (1978-2007)**

*Department of World Languages and Cultures*

**Jan W. Kelly, Ph.D., D. et U.* (1988-2014)**

*Department of Communication*

**Lawrence W. Kennedy, Ph.D., D. et U.* (1992-2020)**

*Department of History*

**Stephen L. Klingman, M.S., D. et U.* (1973-2016)**

*Department of Exercise Science and Sport*

**M. Jane Kopas, O.S.F., Ph.D., D. et U.* (1978-2001)**

*Department of Theology/Religious Studies*

**Robert A. Kocis, Ph.D., D. et U.* (1989-2017)**

*Department of Political Science*

**Edmund M. Kosmahl, Ed.D., D. et U.* (1983-2016)**

*Department of Physical Therapy*

**Linda Ledford-Miller, Ph.D., D et U.* (1985-2018)**

*Department of World Languages and Cultures*

**Dennis S. Martin, Ed.D. (1985-2002)**

*Department of Computing Sciences*

**Christine E. McDermott, Ph.D., D. et U.* (1979-2018)**

*Department of Biology*

**John W. McGinley, Ph.D., D. et U.* (1970-2006)**

*Department of Philosophy*

**John M. McInerney, Ph.D., D. et U.* (1966-2008)**

*Department of English and Theatre*

**Marianne McTighe, M.S., D. et U.* (1946-1986)**

*Library*

**Mary Elizabeth Moylan, M.L.S., M.S., D. et U.* (1986-2016)**

*Library*

**Kevin R. Norris, M.L.S., M.A., D. et U.* (1977-2018)**

*Library*

**Mildred A. Norton, M.S., D. et U.* (1946-1988)**

*Library*

**Peter C. Olden, Ph.D., D. et U.* (1993-2018)**

*Department of Health Administration and Human Resources*

**John J. O'Malley, Ph.D., D. et U.* (1968-2009)**

*Department of Psychology*

**William J. Parente, Ph.D., D. et U.* (1970-2020)**

*Department of Political Science*

**Robert A. Parson, Ph.D., D. et U.* (1979-2018)**

*Department of World Languages and Cultures*

**Richard H. Passon, Ph.D., D. et U.* (1964-2009)**

*Department of English and Theatre*

**Lee M. Penyak (2000 - 2017)**

*Department of History*

**Donna D. Ramos, M.S.L.S., D. et U.* (1974-2010)**

*Library*

**John B. Robertson Jr., M.A., D. et U.* (1969-2008)**

*Department of Exercise Science and Sport*

**Robert P. Sadowski, Ph.D., D. et U.* (1987-2008)**

*Department of Communication*

**John P. Sanko, Ed.D., D. et U.* (1990-2018)**

*Department of Physical Therapy*

**Cheng Hwa Siao, M.A., M.S.L.S., D. et U.* (1969-1993)**

*Library*

**James R. Sidbury, Ph.D., D. et U.* (1983-2009)**

*Department of Computing Sciences*

**Ronald Sinzdak, Ph.D., D. et U.* (1962-65; 1970-2002)**

*Department of Mathematics*

**E. Springs Steele, Ph.D., D. et U.* (1979-2008, 2016-2017)**

*Department of Theology/Religious Studies*

**John K. Stout, D.Ed., D. et U.* (1966-1997)**

*Department of Health Administration and Human Resources*

**Michael A. Sulzinski, D. et U.* (1990)**

*Department of Biology*

**J. Michael Strong, M.S., D. et U.* (1972-2009)**

*Department of Exercise Science and Sport*

**Delia Sumrall, D.B.A., D. et U.* (1992-2015)**

*Department of Management, Marketing & Entrepreneurship*

**Charles E. Taylor, M.S., D. et U.* (2017)**

*Department of Computing Sciences*

**Len Tischler, Ph.D., D. et U.* (1990-2017)**

*Department of Management, Marketing & Entrepreneurship*

**Daniel S. Townsend, Ph.D., D. et U.* (1987-2017)**

*Department of Biology*

**Joe A. Vinson, Ph.D., D. et U.* (1974-2014)**

*Department of Chemistry*

**Roger D. Wallace, Ph.D., D. et U.* (1976-2009)**

*Department of Communication*

**William G. Wallick, Ph.D. (1998-2017)**

*Department of Health Administration & Human Resources*

**Barbara R. Wagner, D.P.T., D. et U.* (1992-2018)**

*Department of Physical Therapy*

**Cheng-Yee Wang, M.L.S., D. et U.* (1981-2008)**

*Library*

**Edward F. Warner, M.S., D. et U.* (1964-2009)**

*Department of Communication*

**William Jeffrey Welsh, Ph.D. (2007-2020)**

*Department of History*

**Gloria Tansits Wenze, Ph.D., (1999-2015)**

*Department of Education*

**John C. Williams, M.S., D. et U.* (1964-1990)**

*Department of Education*

**Gary N. Wodder, Ph.D., D. et U* (1974–2009)**

*Department of Exercise Science and Sport*

**Francis J. Wormuth, J.D., D. et U.* (1979-2001)**

*Department of Management/Marketing*

**Midori Yamanouchi-Rynn, Ph.D., D. et U.* (1975-2006)**

*Department of Sociology/Criminal Justice*

# Faculty of Instruction

**Hamza Adeinat (2016) — Send an e-mail**

*Assistant Professor, Operation & Information Management (2016)*
B.S., University of Jordan
M.S., University of Houston
Ph.D., The Pennsylvania State University

**Michael E. Allison (2006) — Send an e-mail**

*Chair, Department of Political Science (2014)*
*Professor, Political Science (2017)*
B.A., Fairfield University
M.S., Ph.D., Florida State University

**Peter Andersen (2015) — Send an e-mail**

*Assistant Professor, Management, Marketing & Entrepreneurship (2015)*
B.A., M.B.A., University of Tehran
Ph.D., University of Malaya

**Duane S. Armitage (2015) — Send an e-mail**

*Associate Professor, Philosophy (2019)*
B.A., The University of Scranton
M.A., Boston College
Ph.D., The New School for Social Research

**George J. Aulisio (2009) — Send an e-mail**

*Chair, Library (2020)*
*Professor, Library (2020)*
B.A., Bloomsburg University of Pennsylvania

M.S., Drexel University
M.L.A., University of Pennsylvania

**Michael G. Azar (2013) — Send an e-mail**

*Associate Professor, Theology/Religious Studies (2018)*
B.A., Colorado Christian University
M.A., St. Vladimir's Orthodox Theological Seminary
M.Phil., Ph.D., Fordham University

**Sinchul Back (2019) — Send an e-mail**

*Assistant Professor, Criminal Justice (2020)*
B.A. Northeastern University
M.A., Hankuk University of Foreign Studies
M.S., Bridgewater State University
Ph.D., Florida International University

**Aram Balagyozyan (2011) — Send an e-mail**

*Associate Professor, Economics/Finance (2017)*
B.S., Yerevan State University
Ph.D., The Graduate School and University Center of the City University of New York

**Gunjan Bansal (2018) — Send and e-mail**

*Faculty Specialist, Health Administration and Human Resources Department (2018)*
*M.B.B.S., Mysore University*
M.H.A., The University of Scranton

**Kelly M. Banyas (2017) — Send an e-mail**

*Assistant Professor, Library (2017)*
M.A., Boston University
M.L.I.S., University of Maryland

**Mehmet Bastug (2020) — Send an e-mail**

*Assistant Professor, Sociology, Criminal Justice & Criminology (2020)*
B.A., Turkish National Police University
B.S., Akdeniz University
M.S., Ph.D., Rutgers University

**Hope Baylow (2020) — Send an e-mail**

*Assistant Professor, Health and Human Performance (2020)*
B.A., Hofstra University
M.A., Long Island University
D.A., Adelphia University

**Christopher A. Baumann, D. et U.* (1984) — Send an e-mail**

*Professor, Chemistry (1998)*
B.S., Oregon State University
Ph.D., University of Florida

**Rebecca S. Beal, D. et U.* (1983) — Send an e-mail**

*Professor, English and Theatre (1995)*
A.B., Westmont College
M.A., University of Chicago
Ph.D., University of Texas

**W. Andrew Berger, D. et U.* (1989) — Send an e-mail**

*Chair, Department of Physics and Engineering (2017)*
*Professor, Physics and Engineering (2001)*
M.S., Technical University of Poznan, Poland
M.S., Ph.D., Drexel University

**Michael A. Bermudez (2019) — Send an e-mail**

*Assistant Professor, Occupational Therapy (2019)*
B.S., University of Texas Health Science Center at San Antonio
M.A., ABD, New Jersey City University

**Yaodong Bi, D. et U.* (1991) — Send an e-mail**

*Professor, Computing Sciences (2007)*
B.S., M.S., Northeast University of Technology Shenyang,
People's Republic of China
Ph.D., University of Illinois

**Benjamin Bishop (2003) — Send an e-mail**

*Professor, Computing Science (2013)*
B.S., Ph.D., The Pennsylvania State University

**David W. Black, D. et U.* (1984) — Send an e-mail**

*Professor, Philosophy (1994)*
B.A., Northern Illinois University
M.A., Ph.D., The Pennsylvania State University

**Tiffany M. Bordonada (2017) — Send an e-mail**

*Assistant Professor, Counseling and Human Services (2017)*
B.S., Fairmont State University
M.S., M.P. A., West Virginia University
A.B.D., University of South Carolina

**Douglas M. Boyle (2009) — Send an e-mail**

*Chair, Department of Accounting (2015)*
*Associate Professor, Accounting (2015)*
B.A., The University of Scranton
M.A., Columbia University
D.B.A., Kennesaw State University

**James F. Boyle (1999) — Send an e-mail**

*Associate Professor, Accounting (2019)*
B.S., M.B.A., The University of Scranton
Ph.D., Kennesaw State University

**Karen L. Brady (2002) — Send an e-mail**

*Assistant Professor, Occupational Therapy (2006)*
B.A. Mansfield University
M.S., College Misericordia
D.Ed., The Pennsylvania State University

**Sean Brennan, (2009) — Send an e-mail**

*Professor, History (2020)*
B.A., Rockhurst University
M.A., Villanova University
Ph.D., University of Notre Dame

**Lori A. Bruch, D. et U.* (1995) — Send an e-mail**

*Chair, Department of Counseling and Human Services (2015)*
*Associate Professor, Counseling and Human Services (2002)*
B.S., M.Ed., The Pennsylvania State University
M.S., The University of Wisconsin-Stout
Ed.D., George Washington University

**Deborah E. Budash, (2019) — Send an e-mail**

*Assistant Professor, Occupational Therapy (2019)*
B.S., University of Pittsburgh
M.A., Indiana University of Pennsylvania
Ph.D., Northcentral University

**Bryan R. Burnham (2007) — Send an e-mail**

*Associate Professor, Psychology (2012)*
B.A., Utica College of Syracuse University
M.A., Ph.D., State University of New York at Albany

**Barbara K. Buxton (2005) — Send an e-mail**

*Associate Professor, Nursing (2015)*
B.S., Albright College
M.S., Wilkes University
Ph.D., University of Wisconsin

**Timothy J. Cadigan, S.J. (1999) — Send an e-mail**

*Assistant Professor, Biology (1999)*
B.S., St. Louis University
M.Div., Th.M. Weston School of Theology
M.S., Ph.D., Georgetown University

**Jinghan Cai (2014) — Send an e-mail**

*Associate Professor, Economics/Finance (2020)*
B.A., Renmin University of China
Ph.D., City University of Hong Kong
Ph.D., Boston College

**J. Timothy Cannon, D. et U.* (1981) — Send an e-mail**

*Professor, Psychology (1997)*
B.S., The University of Scranton
Ph.D., University of Maine

**Marzia Caporale (2007) — Send an e-mail**

*Chair, Latin American & Women's Studies (2020)*
*Professor, World Languages and Cultures (2019)*
M.A., Ph.D. University of Nebraska–Lincoln

**Brian W. Carpenter, D. et U.* (1987) — Send an e-mail**

*Professor, Accounting (1998)*
*Alperin Teaching Fellow (1999)*
M.B.A., The University of Scranton
B.S., Ph.D., The Pennsylvania State University

**Dona M. Carpenter, D. et U.* (1985) — Send an e-mail**

*Professor, Nursing (1999)*
B.S.N., College Misericordia
M.S.N., Villanova University
M.Ed., Ed.D., Columbia University

**Maureen T. Carroll, D. et U* (1995) — Send an e-mail**

*Professor, Mathematics (2012)*
B.A. LaSalle University
M.S., Ph.D. Lehigh University

**Anthony F. Carusotto (2018) — Send an e-mail**

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*Online MBA Program Assistant, Kania School of Management (2014)*
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*Director, Small Business Development Center (2010)*
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*Campus Minister, Campus Ministries (2008)*
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B.S., The University of Scranton

**Tammy A. Manka (2016) — Send an e-mail**

*Assistant Director SEOL, Panuska College of Professional Studies (2016)*
B.S., M.S., Marywood University

**Marguerite Mannion, CRNP (2011) — Send an e-mail**

*Clinical Manager, Student Health Services (2019)*
B.S.N., The University of Scranton
M.S., State University of New York

**Andrea Mantione (2007) — Send an e-mail**

*Director, Leahy Community Health and Family Center (2007)*
B.S., Wilkes University
M.S.N., D.N.P., The University of Scranton

**Maria R. Marinucci (2014) — Send an e-mail**

*Director of the Cross Cultural Centers, Student Life (2018)*
B.S., Colgate University
M.S., Colorado State University

**Leah Marsili (2018) — Send an e-mail**

*Career Counselor, Career Services (2018)*
B.A., M.A., West Chester University

**Donald E. McCall (2001) — Send an e-mail**

*Technology Support Center Analyst, Information Technology (2015)*
B.S., Baptist Bible College

**BethAnn McCartney (2014) — Send an e-mail**

*Benefits Manager, Human Resources (2014)*
B.S., Baptist Bible College

**Aileen A. McHale, D. et U.* (1988) — Send an e-mail**

*Manager of Operations and Projects, Center for Teaching and Learning Excellence (2012)*
B.S., King's College

**Michelle McHugh (2010) — Send an e-mail**

*Assistant Dean, Weinberg Memorial Library (2019)*
B.A., The Pennsylvania State University
M.L.S., Clarion University
M.L.A., Lock Haven University

**Kirsten, McIntyre (2015) — Send an e-mail**

*Clinic Nurse Manager, Leahy Health & Family Clinic (2015)*
B.S.N., Marywood University
C.R.N.P., Slippery Rock University

**Timothy Meade (2009) — Send an e-mail**

*Sr. Network Engineer, Information Technology (2018)*
B.S. The University of Scranton

**Julee C. Meketa (2011) — Send an e-mail**

*Assistant Dean Assessments & Programs, College of Arts and Sciences (2018)*
B.A. Marywood University
MAcc, The University of Scranton

**Fred Mercadante (2013) — Send an e-mail**

*Campus Minister, Campus Ministries (2013)*
B.S., Stonehill College
M.S., Fordham University

**Barbara C. Mericle, D. et U.* (1990) — Send an e-mail**

*Counselor, Counseling Center (1999)*
B.A., Lock Haven University
M.S., The University of Scranton

**Vincent F. Merkel, D. et U.* (1978) — Send an e-mail**

*Senior Technology Services Analyst, Information Technology (2009)*
B.S., The University of Scranton

**Joseph Mihalich (2011) — Send an e-mail**

*Assistant Men's Basketball Coach, Athletics (2011)*
B.A., Nazareth College Rochester
M.A., Villanova University

**Adrian J. Mihalko (2012) — Send an e-mail**

*Controller, Finance Administration (2012)*
B.S., King's College
M.A.C.C., Villanova University

**Darlene A. Miller-Lanning, D. et U.* (1991) — Send an e-mail**

*Director, Hope Horn Gallery/Adjunct Professor, College of Arts & Sciences (1998)*
B.F.A., Wilkes University
M.F.A., Marywood University
Ph.D., Binghamton University

**Tabbi Miller-Scandle (2002) — Send an e-mail**

*Director of Research, Research and Sponsored Programs* (2010)
B.S., The University of Scranton
M.S., East Stroudsburg University
Ph.D., Binghamton University

**Majid Mokhtari (2005) — Send an e-mail**

*Manager Laboratory Equipment, Physics and Engineering, College of Arts & Sciences (2014)*
B.S., The University of Scranton

**Lori G. Moran (1992) — Send an e-mail**

*Associate Director, Center for Career Development (2020)*
B.S., M.S., The University of Scranton

**Ellen M. Morgan (2008) — Send an e-mail**

*Counselor, Counseling Center (1999)*
B.S., M.S., The University of Scranton

**Danielle L. Morse, D. et U.* (1991) — Send an e-mail**

*IT Asset Management Administrator, Information Technology (2017)*
B.S., Wilkes University
M.S., The University of Scranton

**Colleen Moyer (2008) — Send an e-mail**

*Field Hockey Coach, Athletics (2008)*
B.A., Drew University

**Patrick J. Mullarkey (2013) — Send an e-mail**

*Application Administrator, Information Technology (2016)*
B.S. Marywood University
M.B.A., The University of Scranton

**Mark R. Murphy, D. et U.* (1991) — Send an e-mail**

*Director of Sustainability, Facilities (2013)*
B.S.E.E., Wilkes University

**Shannon Murphy Fennie (2006) — Send an e-mail**

*Assistant Dean of Students, Student Life (2019)*
B.A., The University of Scranton
M.S., Canisius University

**Tracy M. Muth (2003) — Send an e-mail**

*Assistant Director, Academic Advising, College of Arts and Sciences (2018)*
B.S., M.S., The University of Scranton

**Sondra Myers (2007) — Send an e-mail**

*Senior Fellow for International Civic and Cultural Projects, Provost Administration (2007)*
B.A., Connecticut College

**Elsa Nelson (1982) D. et U.*— Send an e-mail**

*Inventory Control and Materials Coordinator, Facilities (2005)*

**Lori Nidoh (2008) — Send an e-mail**

*Director of Marketing Communications, Public Relations (2008)*
B.S., M.B.A., The University of Scranton

**Lisa Notarianni, D. et U.* (1991) — Send an e-mail**

*Telecommunications Engineer, Information Technology (2016)*
A.S., Lackawanna Junior College
B.S., The University of Scranton

**Meghan Nowakowski (2012) — Send an e-mail**

*Bursar, Finance Administration (2012)*
B.S., M.B.A., The University of Scranton

**Carl O'Neil (2008) — Send an e-mail**

*Director, Operations, Research and Compliance, University Advancement (2019)*
B.S., Keystone College
M.B.A., Marywood University

**Jason Oakey (2009) — Send an e-mail**

*Media Systems Engineer, Information Technology (2017)*
A.S. Full Sail Center for the Recording Arts

**John T. Ochman (2010) — Send an e-mail**

*Software Librarian/Assistant DBA, Information Technology (2010)*
B.S., The University of Scranton

**Crystal Ondrick (2011) — Send an e-mail**

*Assistant Director, Financial Aid, Finance Administration*
B.S., Keystone College

**Glen T. Pace, D. et U.* (1988) — Send an e-mail**

*Field Services Technologist, Information Technology (2013)*
A.S., Johnson College

**Debra L. Parry (2012) — Send an e-mail**

*Office Manager, Kania School of Management (2019)*
B.A., Bloomsburg University

**Ronald J. Passaro (2016) — Send an e-mail**

*Application Developer/ Integrator, Information Technology (2016)*
B.S., M.S., The University of Scranton

**Lynn M. Pelick (2003) — Send an e-mail**

*Associate Registrar / Records & Graduation, Office of the Registrar (2015)*
A.S., Lackawanna College
B.S., Marywood University

**Robert Perhacs (2019) — Send an e-mail**

*Student Financing Counselor, Office of Financial Aid (2019)*
B.A., Mansfield University

**Ryan M. Pericozzi (2019) — Send an e-mail**

*Head Coach, Track & Field, Athletics (2019)*
B.A., SUNY at Cortland

**Rachel Perla (2017) — Send an e-mail**

*Assistant Coach Women's Lacrosse, Athletics (2017)*
B.S., St. Bonaventure University

**Joshua Perry (2012) — Send an e-mail**

*Associate Director, Admissions (2015)*
B.A., M.B.A., The University of Scranton

**H. Dan Phillips, D. et U.* (1997) — Send an e-mail**

*Systems Administrator, Information Technology (2010)*
A.S., B.S., Keystone College

**Mary Ellen Pichiarello, D. et U.* (2000) — Send an e-mail**

*Learning Enrichment Specialist, Center for Teaching and Learning Excellence (2003)*
B.A., Marywood University
M.S., The University of Scranton

**Colleen Pivirotto (2008) — Send an e-mail**

*Assistant Director of Athletics/Senior Women's Admin, Athletics (2010)*
B.S., The University of Scranton
M.S., Elmira College

**Matthew T. Pivirotto (2001) — Send an e-mail**

*Head Men's Soccer Coach, Athletics (2001)*
B.A., Lycoming College

**Leah M. Popple (2013) — Send an e-mail**

*Psychologist, Counseling Center (2016)*
B.A., The Pennsylvania State University
M.S., PsyD., Marywood University

**Paula M. Porcoro (2006) — Send an e-mail**

*Academic Advisor, Panuska College of Professional Studies (2014)*
B.S., M.S., The University of Scranton

**Melissa J. Przewlocki (2017) — Send an e-mail**

*Admissions Counselor, Admissions (2017)*
B.S., The University of Scranton
M.S., Marywood University

**Debra A. Price (2016) — Send an e-mail**

*Mail Center Manager, Printing and Mailing Services (2016)*
A.S., Middlesex Community College

**Timothy Pryle, D. et U.* (2002) — Send an e-mail**

*Executive Director of the President's Business Council, University Advancement (2011)*
B.S., The University of Scranton
M.A., Boston College

**Megan A. Purcell (2018) — Send an e-mail**

*Counseling Center Clinician, Counseling Center (2019)*
B.S., M.S., The University of Scranton

**James D. Redington, S.J. (2014) — Send an e-mail**

*Jesuit Fellow, The Jesuit Center (2014)*
B.A., Boston College
M.A., Ph.D., University of Wisconsin

**Scott Reilly (2011) — Send an e-mail**

*Asst. Director Field Placement, Panuska College of Professional Studies (2011)*
M.A., Nova Southeastern University

**Laura C. Richards (2014) — Send an e-mail**

*University Editor, Public Relations (2014)*
A.B., Smith College

**Michael D. Ritterbeck (2014) — Send an e-mail**

*Director, Center for Student Engagement, Student Life* (2019)
B.S., The University of Scranton
M.S. Canisius College

**Maryjane S. Rooney, D. et U.* (1989) — Send an e-mail**

*Director, Strategic Outreach and Presidential Events, Alumni Relations (2019)*
B.S., The University of Scranton

**John M. Rubano (2015) — Send an e-mail**

*Head Coach, Men's Tennis, Athletics (2015)*
B.S., Vincent College
M.S., St. Joseph University

**Jose F. Sanchez (2016) — Send an e-mail**

*Assistant Director Cross Cultural Center, Student Life (2016)*
B.A., M.A., SUNY College

**Catherine Sanderson, D. et U.* (1999) — Send an e-mail**

*Coordinator Parking Services, Public Safety (1999)*

**Madonna A. Savage, D. et U.* (1985) — Send an e-mail**

*Manager of Scheduling and Operations, Public Relations (2007)*

**Patricia A. Savitts, D. et U.* (1998) — Send an e-mail**

*Library Circulation/Access Services Supervisor, Weinberg Memorial Library (2010*)

**Janet E. Schieber (2014) — Send an e-mail**

*Operations Manager, Residence Life (2020)*

**Jason Schwass (2008) — Send an e-mail**

*Assistant Director for Student Internships, Kania School of Management S(2014)*
B.A., Bloomsburg University
M.B.A., The University of Scranton

**David J. Schweitzer (2013) — Send an e-mail**

*Assistant Director for Student Conduct, Student Life (2015)*
B.S., The Pennsylvania State University
M.S., Misericordia University

**Raymond Schwenk (2005) — Send an e-mail**

*Assistant Dean of Assessment, Finance and Communications, Panuska College of Professional Studies (2011)*
B.A., Bucknell University
M.S., The University of Scranton

**Christian A. Scipioni (2018) — Send an e-mail**

*Special Collections Assistant, Weinberg Memorial Library (2018)*
B.A., St. Joseph's College, Maine
M.L.I.S., St. John's University

**Paula Semenza (2004) — Send an e-mail**

*Office Manager, Center for Teaching and Learning Excellence (2004)*
A.S., Wilkes-Barre Business School

**Catherine A. Seymour, D. et U.* (1992) — Send an e-mail**

*Campus Minister, Campus Ministries (2007)*
B.S., M.A., The University of Scranton

**Reka Shayka (2018) — Send an e-mail**

*Assistant Director, Residence Life (2019)*
B.A., Corvinus University of Budapest
M.B.A., Wilkes University

**Ryan Sheehan (2012) — Send an e-mail**

*Assistant Director, The Jesuit Center (2017)*
B.A., University of Delaware
M.A. Western New Mexico University
J.D., Arizona State University

**Mary D. Sheils (2008) — Send an e-mail**

*Academic Advisor, College of Arts and Sciences (2017)*
B.S., Kutztown University
M.S., East Stroudsburg University

**Randall Shemanski (2011) — Send an e-mail**

*Athletics Communication Manager, Athletics (2015)*
B.A., Fairleigh Dickinson University
M.B.A., The University of Scranton

**Erin M. Shumbres (2012) — Send an e-mail**

*Assistant Saturday Teacher, Leahy Health & Family Center (2012)*
B.S., M.S., Temple University

**Donna J. Simpson, D. et U.* (1993) — Send an e-mail**

*Business Consultant/Manager of Special Projects, Small Business Development Center (1995)*
BSBA, Auburn University
M.B.A., Wilkes University

**Robert J. Siock Jr. (2015) — Send an e-mail**

*Academic Service and Special Enrollment Manager, Office of the Registrar (2019)*
B.S., University of Scranton

**Amy M. Simolo (2017) — Send an e-mail**

*Faculty Development Specialist, Center for Teaching & Learning Excellence (2017)*
B.S., Cazenovia College
M.S., SUNY at Albany
Ed.D., University of Rochester

**Maribeth Smith (2002) — Send an e-mail**

*Executive Assistant to the President, Office of the President (2019)*

**Brian Snapp (2011) — Send an e-mail**

*Associate Director, Center Teaching & Learning Excellence (2011)*
B.S., Rochester Institute of Technology
M.S., Bloomsburg University

**Michael J. Sperazza (2017) — Send an e-mail**

*Assistant Printing Manager, Printing Services (2019)*

**Kevin J. Stanford (2014) — Send an e-mail**

*Academic Advisor/Counselor, Advising Center Kania School of Management (2015)*
B.B.A., The Pennsylvania State University
M.B.A., The University of Scranton

**Judith L. Stanton (2013) — Send an e-mail**

*Family Nurse Practitioner, Student Health Services (2013)*
B.S., University of Delaware
M.S.N., Binghamton University

**Cassondra L. Steiner (2017) — Send an e-mail**

*Assistant Director, Center for Student Engagement (2019)*
B.S., M.Ed., Kutztown University

**Shannon L. Stricker (2017) — Send an e-mail**

*Admissions Counselor, Admissions (2017)*
B.S., The University of Scranton

**Sheila M. Strickland (2006) — Send an e-mail**

*Records Analyst, Graduate and Continuing Education Services (2010)*
B.S., Marywood University

**Michael Sweitzer Jr. (2015) — Send an e-mail**

*Sports Medicine Manager, Athletics (2015)*
B.S., King's College

**Adam Szydlowski (2009) — Send an e-mail**

*Academic Advisor, Graduate Programs (2017)*
B.S., M.S., The University of Scranton

**John J. Tabor, D. et U.* (1977) — Send an e-mail**

*Financial Area Coordinator/System Developer, Finance Administration (2011)*
B.S., The University of Scranton

**Valerie Taylor (2003) — Send an e-mail**

*Senior Research Analyst, Institutional Research (2016)*
B.A., Mansfield University
M.Phil., East Stroudsburg University

**Janice E. Tellier (2002) — Send an e-mail**

*Technical Director of Theater, English and Theatre (2019)*
B.A., University of Wisconsin-Milwaukee

**Rosemary S. Termini (2016) — Send an e-mail**

*Disability Support Specialist, Center for Teaching & Learning Excellence (2016)*
B.S., Bloomsburg University
E.D.M., Millersville University

**Jason Thorne (2008) — Send an e-mail**

*Sr. Graphic Designer, Public Relations (2012)*
B.F.A., Marywood University
M.S., The University of Scranton

**Bradley J. Troy (2013) — Send an e-mail**

*Director of Residence Life, Residence Life (2015)*
B.S., The University of Scranton
M.S., Syracuse University

**Richard Trygar, D. et U.* (1984) — Send an e-mail**

*Lab Supervisor, Chemistry, College of Arts & Sciences (1991)*
B.S., M.S., The University of Scranton

**Antonelle G. Tuazon (2014) — Send an e-mail**

*Assistant Director, Graduate Communications, Admissions (2020)*
B.S., M.B.A., The University of Scranton

**Paul A. Tweedy (1988) — Send an e-mail**

*NEPEC Professional, Education Consortium (2013)*
B.A., M.A., George Washington University

**Stacey R. Urgento, D. et U.* (1999) — Send an e-mail**

*Assistant Director, Graduate Admissions (2019)*
B.S., M.S., The University of Scranton

**Patricia Vaccaro, D. et U.* (1987) — Send an e-mail**

*Director, Center for Service & Social Justice, Campus Ministries (2012)*
B.A., Marywood University
M.S., The University of Scranton

**Ariel M. Van Dam (2019) — Send an email**

*Special Enrollment & Academic Services, Office of the Registrar (2019)*
B.S., Arizona State University

**Ryan Van Zelst (2015) — Send an e-mail**

*Assistant Men's Basketball Coach, Athletics (2015)*
B.A., Albright College

**Maria L. Vital (2007) — Send an e-mail**

*Operations Manager, Leahy Community Health Center (2012)*
B.S. Catholic University of Brazil
M.H.A., The University of Scranton
Ph.D., Marywood University

**Rebecca L. Wagner (2019) — Send an e-mail**

*Admissions Counselor, Office of Admissions (2019)*
B.A., The University of Scranton

**Richard A. Walsh, D. et U.* (1998) — Send an e-mail**

*Assistant Provost for Operations and Data Analytics Officer, Provost Administration (2018)*
B.A., Marywood University
M.B.A., The University of Scranton

**Joseph K. Wetherell, D. et U. (1995) — Send an e-mail**

*Event Specialist, Office of Admissions (2016)*
B.S., University of Vermont
M.S., Florida Institute of Technology

**Chasity L. Whitmore (2010) — Send an e-mail**

*Associate Director, Advancement Operations, University Advancement (2019)*
A.S., Lackawanna College
B.S., M.B.A., The University of Scranton

**Christina M. Whitney (2015) — Send an e-mail**

*Director of Career Services (2015)*
B.S., The Pennsylvania State University
M.S., The University of Scranton

**Jason Wimmer (2006) — Send an e-mail**

*Manager, Academic & Media Services, Information Technology (2016)*
B.S., East Stroudsburg University
M.S., The University of Scranton

**Janice M. Winslow, D. et U.* (1986) — Send an e-mail**

*Director, Intramurals/Recreation (1996)*
B.A., M.S., The University of Scranton

**Matthew G. Wren (2012) — Send an e-mail**

*Web Designer/Developer, Public Relations (2019)*
B.S. The University of Scranton

**Kathryn A. Wynn (2014) — Send an e-mail**

*Director, Campus Engagement, University Advancement (2019)*
B.S., Duquesne University
M.B.A., The University of Scranton

**Keith D. Yurgosky, D. et U.* (1994) — Send an e-mail**

*Manager, Management Information Systems and*
*Internet Business, Small Business Development Center (2000)*
B.S., M.B.A., The University of Scranton

**John M. Zak (2017) — Send an e-mail**

*Director of Development, University Advancement (2017)*
B.S., Misericordia University

**Deborah A. Zielinski, D. et U.* (1994) — Send an e-mail**

*Nursing Lab Director, Panuska College of Professional Studies (1998)*
B.S., Wilkes University
M.S., State University of New York at Binghamton

**Stanley M. Zygmunt (2001) — Send an e-mail**

*Director of News and Media Relations, Public Relations (2001)*
B.S., M.B.A., The University of Scranton

# Accreditations

The University of Scranton is accredited by The Middle States Commission on Higher Education (MSCHE), 3624 Market Street, Philadelphia, PA 19104. The University has earned accreditation from 12 different disciplinary accrediting agencies, including recognition by the nation's most prestigious bodies in the fields of business and management, nursing, computer science, physical therapy, occupational therapy, chemistry and counseling.

In addition to these accreditations, selected programs are approved by the relevant agency within the State of Pennsylvania. The Master of Science degree in Education, and the Master of Science degree in School Counseling, are approved by the Pennsylvania Department of Education (PDE). The Master of Science degree in nursing is approved by the Pennsylvania State Board of Nursing.

Academy of Criminal Justice Sciences (certification)
Accreditation Board for Engineering and Technology (ABET)
Accreditation Council for Occupational Therapy Education (ACOTE)
The Association to Advance Collegiate Schools of Business (AACSB)
American Chemical Society (ACS)
Commission on Collegiate Nursing Education (CCNE)
Commission on Accreditation in Physical Therapy Education (CAPTE)
Commission on Accreditation of Healthcare Management Education (CAHME)
Commission on Accreditation of Allied Health Education Programs (CAAHEP)
Council for Accreditation of Counseling and Related Educational Programs (CACREP)
Council for Standards in Human Service Education (CSHSE)
Council on Accreditation of Nurse Anesthesia Educational Programs (COA)
Council on Accreditation of Allied Health Education Programs, Committee on Accreditation for the Exercise Sciences (CoAES)
Middle States Commission on Higher Education (MSCHE)
National Association of Long Term Care Administrators Board (NAB)

# Memberships

Academy of Criminal Justice Sciences
American Association for Higher Education (AAHE)
American Association of Hispanics in Higher Education, Inc. (AAHHE)
American Association of Colleges for Teacher Education (AACTE)
American Association of Colleges of Nursing (AACN)
American Association of Nurse Practitioners (AANP)
American Association of University Women (AAUW)
American College of Healthcare Executives (ACHE)
American College and Research Libraries (ACRL)
American Council on Education (ACE)
American Library Association (ALA)
American-Mideast Education & Training Services, Inc. (AMIDEAST)
American Occupational Therapy Association (AOTA)
American Physical Therapy Association (APTA)
ASIA Network
Association for Continuing Higher Education, Inc. (ACHE)
Association for the Advancement of Sustainability in Higher Education (AASHE)
The Association to Advance Collegiate Schools of Business (AACSB International)
Association of American Colleges and Universities (AACU)
Association of Catholic Colleges and Universities (ACCU)
Association of Governing Boards of Universities and Colleges (AGB)
Association of Independent Colleges & Universities of Pennsylvania (AICUP)
Association of International Educators (NAFSA)
Association of Jesuit Colleges and Universities (AJCU)
Association of Integrative Studies (AIS)
Association of University Programs in Health Administration (AUPHA)
Center for Academic Integrity (CAI)
College Board
Commission for Independent Colleges and Universities (CICU)
Commission on Accreditation of Healthcare Management Education (CAHME)

Commission on Collegiate Nursing Education (CCNE)
Committee on Accreditation for Exercise Science (COAES)
Council on Graduate Schools (CGS)
Council on Higher Education Accreditation (CHEA)
Council for Accreditation of Counseling and Related Educational Programs (CACREP)
Council on Accreditation of Nurse Anesthesia Education Programs (COA)
Council of Independent Colleges (CIC)
Council on Rehabilitation Education, Inc. (CORE)
Council on Undergraduate Research (CUR)
Council for Standards in Human Service Education (CSHSE)
Free Clinic PA
Fulbright Association
Fuld Institute for Technology in Nursing Education
Greater Scranton Chamber of Commerce
Hispanic Association of Colleges and Universities (HACU)
Higher Education Data Sharing Consortium (HEDS)
Institute of International Education (IIE)
Jesuit Conference of Nursing Program (JCNP)
Jesuit MBA
Lackawanna Interagency Council (Lackawanna IAC)
Lilly Fellows Program in Humanities and the Arts
Lyrasis
Middle Atlantic Association of Colleges of Business Administration (MAACBA)
Middle States Commission on Higher Education (MSCHE)
National Association for Free & Charitable Clinics (NAFCC)
National Association for Women in Catholic Higher Education (NAWCHE)
National Association of Graduate Admissions Professionals (NAGAP)
National Association of Independent Colleges and Universities (NAICU)
National Council on Rehabilitation Education (NCRE)
National Forum for Latino Health Care Executives (NFLHE)
National League for Nursing (NLN)
National Organization of Nurse Practitioner Faculties (NONPF)
National Strength and Conditioning Association (NSCA)
National Student Nurses' Association (NSNA)
Northeast & Central Pennsylvania Interprofessional Education Coalition (NECPA IPEC)
New American Colleges & Universities (NAC&U)
Northeast Pennsylvania Library Network (NPLN)
Northeastern Association of Graduate Schools
Northeastern Pennsylvania Diversity Education Consortium (NEPDEC)
Nursing Education Consortium of NEPA
OCLC
Pennsylvania Academic Library Consortium, Inc.
Pennsylvania American Council on Education (PA ACE)
Pennsylvania Association of Colleges and Teacher Educators (PACTE)
Pennsylvania Association of Colleges and Universities (PACU)
Pennsylvania Association of Graduate Schools
Pennsylvania Higher Education Nursing School Association (PHENSA)
Pennsylvania Library Association (PaLA)
SAP University Alliance
Scholarly Publishing & Academic Resources Coalition (SPARC)
Society for College and University Planning (SCUP)
Society for Human Resource Management (SHRM)
University Continuing Education Association
Westchester Academic Library Directors Organization (WALDO)

## Association of Jesuit Colleges and Universities

**Alabama**

Spring Hill College, Mobile

**California**

Loyola Marymount University, Los Angeles
University of San Francisco, San Francisco
Santa Clara University, Santa Clara

**Colorado**

Regis University, Denver

**Connecticut**

Fairfield University, Fairfield

**District of Columbia**

Georgetown University

**Illinois**

Loyola University, Chicago

**Louisiana**

Loyola University, New Orleans

**Maryland**

Loyola College in Maryland

**Massachusetts**

Boston College, Boston
College of the Holy Cross, Worcester

**Michigan**

University of Detroit Mercy, Detroit

**Missouri**

Rockhurst University, Kansas City
Saint Louis University, St. Louis

**Nebraska**

Creighton University, Omaha

**New Jersey**

Saint Peter's College, Jersey City

**New York**

Canisius College, Buffalo
Fordham University, New York City
Le Moyne College, Syracuse

**Ohio**

John Carroll University, Cleveland
Xavier University, Cincinnati

**Pennsylvania**

Saint Joseph's University, Philadelphia
The University of Scranton, Scranton

**Washington**

Gonzaga University, Spokane
Seattle University, Seattle

**West Virginia**

Wheeling Jesuit College, Wheeling

**Wisconsin**

Marquette University, Milwaukee

# Academic Calendar 2020-2021

| **Fall 2020** | |
|---|---|
| Orientation for Campus-Based Graduate Students | To be Announced |
| University Housing Opens for New Students | To be Announced |
| Fall Welcome Weekend for New Undergraduate Students | August 15-16 |
| Housing Opens for Returning Students | To be Announced |
| Classes Begin | August 17 |
| Convocation | To be Announced |
| Last Day to Add Courses | August 21 |
| Last Day 100% Tuition Refund (non-flat rate only) | August 26 |
| Mass of the Holy Spirit | To be Announced |
| Last Day to Request Credit/No Credit Option | August 28 |
| Last Day 75% Tuition Refund (non–flat rate only) | September 2 |
| Last Day 50% Tuition Refund (non-flat rate only) | September 9 |
| Last Day 25% Tuition Refund (non-flat rate only) | September 16 |
| Last Day to Drop a Course with No Grade | September 16 |
| Last Day to Register for Graduate Comprehensive Exams | September 18 |
| Semester Midpoint | October 2 |
| Last Day to Elect Audit Grade Option | October 2 |
| Mid-Semester Grades Due by Noon | October 7 |
| Incomplete Grades from Prior Term Due | October 14 |
| Graduate Comprehensive Exams | October 17 |
| Last Day to Withdraw with "W" Grade | October 30 |
| Last Day to Submit Theses or Scholarly Papers | October 30 |
| Last Day to Apply for December or January Graduation | October 31 |
| Last Week of Classes (No Exams Permitted) | November 12-18 |
| Last Day of Class | November 18 |

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| Reading Day (No scheduled classes) | November 19 |
| Final Exams Begin | November 20 |
| Final Exams Continue | November 21-25 |
| Final Exams Conclude | November 25 |
| Last Day of Term | November 25 |
| University Housing Closes by 6:00 p.m. | November 25 |
| Final Grades Due by 3:00 p.m. | December 2 |
| **Spring 2021** | |
| Orientation for Campus-Based Graduate Students | January 21 |
| University Housing Opens for Returning Students | January 26 |
| Classes Begin | January 27 |
| Last day to Apply for May Graduation | January 31 |
| Last Day to Add Classes | February 2 |
| Last Day 100% Tuition Refund (non-flat rate only) | February 5 |
| Last Day to Request Credit/No Credit Option | February 10 |
| Last Day 75% Tuition Refund (non-flat rate only) | February 12 |
| Last Day 50% Tuition Refund (non-flat rate only) | February 19 |
| Last Day 25% Tuition Refund (non-flat rate only) | February 26 |
| Last Day to Drop a Class with No Grade | February 26 |
| Last Day to Register for Graduate Comprehensive Exams | February 26 |
| Semester Midpoint | March 12 |
| Incomplete Grades from Prior Term Due | March 12 |
| Last Day to Elect Audit Grade Option | March 12 |
| Last Day of Class before Spring Break | March 12 |
| University Housing Closes | March 12 |
| Spring Break Begins | March 13 |
| University Housing Re-opens | March 21 |
| Classes Resume after Spring Break | March 22 |

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| Mid-Semester Grades Due by Noon | March 24 |
| Graduate Comprehensive Exams | March 27 |
| Last Day of Class before Easter Break | March 31 |
| University Housing Closes | April 1 |
| Easter Break Begins | April 1 |
| Easter | April 4 |
| University Housing Re-opens | April 5 |
| Classes Resume after Easter | April 6 |
| Classes Run on Monday Schedule | April 7 |
| Last Day to Withdraw with "W" Grade | April 16 |
| Last Day to Submit Theses or Scholarly Papers | April 16 |
| Last Week of Classes (No Exams Permitted) | May 10-14 |
| Last Day of Class | May 14 |
| Final Exams Begin | May 17 |
| Final Exams End; Last Day of Term | May 21 |
| University Housing Closes | May 22 |
| Final Grades Due by 3:00 p.m. | May 24 |
| Class Night | May 28 |
| Baccalaureate Mass | May 29 |
| Graduate Commencement | May 29 |
| Undergraduate Commencement | May 30 |
| University Housing Closes | May 30 |
| Memorial Day Holiday | May 31 |
| **Important Note:**<br>*Wednesday, April 7th classes will run on a Monday schedule* | |
| **Intersession 2021** | |
| Classes Begin | December 21 |
| Last Day to Add Courses via Web | December 20 |

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| Last Day to Request Credit/No Credit Option | December 22 |
| Last Day 100% Tuition Refund | December 23 |
| Last Day 50% Tuition Refund | December 28 |
| Last Day to Drop a Course with No Grade | December 28 |
| Winter Break, No Classes in Session | December 24-December 25<br>December 31-January 1 |
| Last Day to Elect Audit Option | January 7 |
| Incomplete Grades from Prior Term Due | January 13 |
| Holiday, No On-Campus Classes | January 18 |
| Last Day to Withdraw (“W” Grade) | January 19 |
| Make-up Date and/or Final Exams | January 26 |
| Last Day of Term | January 26 |
| Final Grades Due by 3:00 p.m. | January 29 |
| **Mini Term (M1)** | |
| University Housing Open | January 3 |
| Classes Begin | January 4 |
| Last Day to Add Courses via Web | January 3 |
| Last Day to Request Credit/No Credit Options | January 5 |
| Last Day 100% Tuition Refund | January 6 |
| Last Day 50% Tuition Refund | January 7 |
| Last Day to Drop a Course with No Grade | January 7 |
| Last Day to Elect Audit Option | January 15 |
| Holiday, No Classes | January 18 |
| Last Day to Withdraw (“W” Grade) | January 19 |
| Make-up Date and/or Final Exams | January 26 |
| Last Day of Term | January 26 |

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| Final Grades Due by 3:00 p.m. | January 29 |
| **Summer 2021** | |
| Classes Begin | May 24 |
| Holiday, No On-Campus | May 31 |
| Last Day to Ass Classes | May 28 |
| Last Day for 100% Tuition Refund | June 2 |
| Last Day to Request Credit/No Credit Option | June 4 |
| Last Day for 75% Tuition Refund | June 9 |
| Last Day for 50% Tuition Refund | June 16 |
| Last Day to Register for Graduate Comprehensive Exams | June 18 |
| Last Day for 25% Tuition Refund | June 23 |
| Last Day to Drop/No Grade | June 20 |
| Last Day to Apply for August Graduation | June 30 |
| Holiday, No On-Campus Classes | July 3-5 |
| Last Day to Elect Audit Options | July 9 |
| Incomplete Grades from Prior Term Due | July 9 |
| Grade Comprehensive Exams | July 10 |
| Last Day to Withdraw (“W” Grade) | July 30 |
| Last Day to Submit Theses or Scholarly Papers | July 30 |
| Make-up Date and/or Final Exams | August 27 |
| Last Day of  Term | August 27 |
| Final Grades Due by 3:00 p.m. | August 30 |

| **Parts of Terms (POT)** | **M1-(4 weeks)** | **M2 (4 weeks)** |
|---|---|---|
| Classes Begin | June 1 | July 6 |
| Last Day to Add Classes via Web | May 31 | July 5 |

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| Last Day to Request Credit/No Credit Option | June 2 | July 7 |
| Last Day 100% Tuition Refund | June 3 | July 8 |
| Last Day 50% Tuition Refund | June 4 | July 9 |
| Last Day to Drop a Class with No Grade | June 4 | July 9 |
| Last Day to Elect Audit Option | June 10 | July 15 |
| Last Day to Withdraw with “W” Grade | June 21 | July 26 |
| Make-up Date and/or Final Exams | June 28 | August 2 |
| Session Ends | June 28 | August 2 |
| Final Grades Due | July 7<br>By Noon | August 12<br>By 3:00 p.m. |
| | **M 6 (6 weeks)** | **M10 (10 weeks)** |
| Classes Begin | May 24 | June 1 |
| Last Day to Add Classes via Web | May 23 | May 31 |
| Last Day 100% Tuition Refund | May 26 | June 8 |
| Last Day 75% Tuition Refund | n/a | June 11 |
| Last Day to Request Credit/No Credit Option | May 25 | June 14 |
| Last Day 50% Tuition Refund | May 27 | June 15 |
| Last Day 25% Tuition Refund | n/a | June 21 |
| Last Day to Drop a Class with No Grade | May 27 | June 21 |
| Last Day to Elect Audit Option | June 2 | July 2 |
| Holiday, No On-Campus Classes | n/a | July 3-5 |
| Last Day to Withdraw with a “W” Grade | June 28 | July 30 |
| Make-up Date and/or Final Exams | July 2 | August 9 |
| Session Ends | July 2 | August 9 |
| Final Grads Due | July 7<br>By Noon | August 12<br>By 3:00 p.m. |

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| **Admission Office** | **(570) 941-7540** |
| **Office of Financial Aid** | **(570) 941-7700** |
| **Office of the Registrar & Academic Services** | **(570) 941-7721** |
| **University FAX** | **(570) 941-6369** |

## Statement of Ownership

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