THE UNIVERSITY OF
SCRANTON
A JESUIT UNIVERSITY

UNDERGRADUATE CATALOG
2007-08
Rights Reserved

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 of Scranton admits students without regard to their race, color, religion, national origin, ancestry, sex, sexual orientation or age to all the rights, privileges, programs, and activities generally accorded or made available to students at the school. The University does not discriminate on the basis of race, color, religion, national origin, ancestry, sex, sexual orientation or age in administration of its educational policies, admission policies, scholarship and loan programs and athletic and other school-administered programs.

Otherwise qualified persons are not subject to discrimination on the basis of handicap or disability.

If you believe you have been discriminated against because of race, color, religion, national origin, ancestry, sex, sexual orientation or age, or handicap or disability, then please contact the Director of Equity and Diversity.

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.

Table of Contents

Pride, Passion, Promise: Experience Our Jesuit Tradition.................................5
Mission Statement........................................6
The University Seal.........................................7
The Faculty....................................................7
Student Diversity and Participation.....................8
Volunteer Activity..........................................8
Baccalaureate Source of Ph.D.s................................8
National Recognition......................................9
Fullbrights and Other.....................................9
International Fellowships................................9
Truman and Other National Scholarships............10
Alumni Society.............................................11
Undergraduate Admission and Expenses.............13
Admission......................................................14
University Information....................................14
Required High School Preparation.....................14
Campus Visit Programs....................................14
Submitting an Application.................................15
Advanced Placement......................................15
College-Level Examination Program (CLEP)....15
International Students...................................15
Students with Disabilities.................................16
Special Admissions Programs..............16
Tuition Payments...........................................17
Tuition and Fees...........................................18
Health Insurance...........................................21
Student Identification Cards.............................21
Scholarships and Financial Aid......................................23
Procedures for Applying.................................24
Financial Aid Refund Policy.............................24
Loan and Grant Programs.................................24
Other Financial Aid Programs...........................25
Scholarships..................................................26
Life on Campus.............................................41
Student Services..........................................42
Outside the Classroom...................................45
University Ministries.....................................49
The Campus..................................................51
The University at a Glance..............................53
Academics.....................................................55
Academic Honor Societies...............................56
Academic Support Services.............................59
Academic Policies and Regulations.....................61
Degree Programs............................................71
Special Programs..........................................73
Programs of Excellence..................................76
Pre-Law Program..........................................80
Pre-Medical Program.....................................81
Interdisciplinary Programs and Concentrations.....83
General Education Curriculum..........................93
General Education Summary............................94

Recommended General Education..........................95
Course Sequence.........................................95
Options for Undeclared Freshmen...............96

The College of Arts and Sciences........................97
Art and Music.............................................98
Biochemistry, Cell and Molecular Biology........103
Biology.....................................................105
Chemistry...............................................111
Biochemistry; Chemistry-Business; Chemistry-
Computers; Forensic Chemistry; Medical Technology
Communication..........................................121
Computing Sciences...................................127
Computer Science; Computer Information
Systems; Software Engineering
Criminal Justice.........................................133
Economics...............................................136
Engineering..............................................136
Computer Engineering; Electrical Engineering;
Electronics-Business; Pre-Engineering
English......................................................143
Theatre; Writing Minor...............................143
Environmental Science...............................155
Foreign Languages and Literatures................157
Foreign Languages International Language-Business
History.......................................................168
International Studies.................................168
Mathematics..............................................175
Biomathematics..........................................180
Media and Information Technology................180
Military Science/Army ROTC.....................182
Neuroscience.............................................184
Philosophy................................................186
Physics.....................................................192
Biophysics................................................197
Political Science........................................197
Psychology.................................................202
Sociology................................................207
Theology/Religious Studies.........................212

The Kania School of Management.....................221
Accounting...............................................223
General Accounting; Forensic Accounting
Accounting Information Systems................227
Business Administration.............................230
Economics..............................................231
Electronic Commerce.................................234
Finance..................................................237
International Business...............................239
Management..............................................241
Marketing................................................244
Operations Management.............................246
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.”
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.

Characteristics and Goals

As a Catholic and Jesuit University, The University of Scranton will:
1. Share with all the fullness of the Catholic intellectual tradition, the distinctive worldview of the Christian Gospels, and the spirituality of St. Ignatius Loyola.
2. Educate men and women for others who are committed to the service of faith and promotion of justice.
3. Invite persons from other religious traditions and diverse backgrounds to share in our work and contribute to our missions.

As a Comprehensive University, The University of Scranton will:
4. Offer 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.
5. Provide educational opportunities and support programs that promote the mission of the University, meet the needs and interests of traditional and non-traditional students, and serve the needs of the local region.

As a University in the Liberal Arts Tradition, The University of Scranton will:
6. Offer undergraduate students a core curriculum in the Jesuit tradition based on the arts and sciences.
7. Impart to students the importance of gathering, evaluating, disseminating, and applying information using traditional and contemporary methods.
8. Provide learning experiences that reach beyond the fundamental acquisition of knowledge to include understanding interactions and syntheses through discussion, critical thinking, and application.
9. Promote a respect for knowledge and a lifelong commitment to learning, discernment and ethical decision making.

As a Caring Community, The University of Scranton will:
10. 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.
11. Facilitate the personal growth and transformation of all members of the University community through a spirit of caring.
12. Extend this spirit of caring to the wider community through civic engagement and service.
13. Enhance our sense of community by demonstrating high standards and care for our physical environment.

As a Dynamic Institution, The University of Scranton will:
14. Develop goals and aspirations by systematically reflecting on opportunities for and challenges to fulfilling our mission.
15. Fulfill our mission through careful planning and management of resources in order to achieve our aspirations while remaining affordable to our students.
16. Engage the University community in purposefully monitoring progress toward the accomplishment of our mission.

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 of 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 cornerstone of Old Main is preserved in the wall of St. Thomas Hall located at the corner of Linden Street and Monroe Avenue.) 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 a primarily commuter school with fewer than 1,000 students to a broadly regional, comprehensive university with a total enrollment of more than 5,000 students in undergraduate, graduate and non-traditional programs.

In these early years of the 21st century, the University is building on its historical and educational heritage guided by the 2005-2010 Strategic Plan, entitled Pride, Passion, Promise: Shaping Our Jesuit Tradition, and a 20-year Facilities Master Plan adopted in 2000.

The University remains committed to enriching the quality and variety of its academic offerings with recent additions in such fields as Community Health Education and Electronic Commerce. In addition, it continues to invest in its physical plant, constructing 25 new buildings and renovating 36 others since 1984.

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 Ptonce. 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 270 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; Sookchow 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 ele-
ment 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 2005-06 there were 533 scholarly works, including books and book chapters, articles in prestigious peer-reviewed journals, patents and patent applications, presentations and proceedings, and other creative works. Subjects reflects a wide range of current topics, including white collar crime, pollution prevention through green chemistry, and energy transfer at the molecular level, to name just a few.

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 Slovakia, Republic of Georgia, Mexico, China, Kyrgyzstan, Ukraine, and Mozambique; funding has been received from the USAID and the Department of State.

The University Directory near the end of the catalog presents more detailed information about the faculty.

Student Diversity and Participation

As our faculty come from around the world, so do our students. Twenty-eight states and thirty-four countries are represented in the University’s student body of just over 5,000.

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, St. Andrews, Caen, 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. Similarly, they participate in the University’s decision making. Seven students are elected by the student body to serve on the University Council. 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 University’s Community Outreach Office has a roster of 2,700 students who perform over 162,000 service hours each year. Since 1983, a total of 368 Scranton students have chosen to spend a year or more in full-time volunteer service immediately after graduation. A total of 209 of these graduates have volunteered with the Jesuit Volunteer Corps. Additional information about the Community Outreach Office can be found in the Student Life 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. This year, the University ranked 15th for all science disciplines, 5th for life sciences and 2nd for chemistry.

National Recognition

“Best 361,” “Best Buys in College Education,” “America’s Best Colleges,” “Character Building,” “Hidden Gem” – these are just a few of the ways that the nation’s leading college rankings and guidebooks consistently refer to The University of Scranton.

For the 13th consecutive year, U.S. News & World Report named the University among the top 10 comprehensive universities in the North (the largest and most competitive region in its annual survey of “America’s Best Colleges”). The University has consistently been included in the U.S. News rankings since they were first introduced in 1983. In the 2007 edition, Scranton ranked ninth. In the same region, the University ranked 14th in the category “Great Schools at a Great Price.”

For the past five years, The Princeton Review included Scranton among The Best 361 Colleges in the nation. In Kaplan/Newsweek’s publication How to Get Into College, Scranton is listed among the nation’s 369 Most Interesting Schools. The University is also listed among the 247 colleges in the nation included in the ninth edition of Barron’s Best Buys in College Education. And Scranton is one of just 372 colleges nationwide to be included in The Princeton Review’s Guide to College Visits: Planning Trips to Popular Campuses in the Northeast, Southeast, West and Midwest.

Intel Corporation recognized Scranton for wireless access to the Internet, ranking the University 87th on its list of the nation’s top 100 “Most Unwired College Campuses.”

Scranton was counted among a national list of “100 Colleges Worth Considering” by the Washington Post Magazine in April 2003. An expanded version of the piece was repeated in book form under the title HarvardSchm Harvard, which listed the nation’s “top 100 outstanding (and underappreciated) colleges.”

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.

Fulbrights and Other International Fellowships

Since 1972, 117 Scranton students have accepted grants in the competitions administered by the Institute of International Education (Fulbright) and International Rotary. The prestigious Fulbright Fellowship is the U.S. government’s premier scholarship for foreign study and research.

Three Scranton students were awarded Fulbright Fellowships in 2007. Rosemary Moran, an elementary education major, and Thomas Murthaugh, a double major in history and secondary education, both received Fulbright teaching assistantships in English to South Korea. Both will teach English as a second language while pursuing independent research projects. Vincent Solomeno, a political science major, was awarded a Fulbright fellowship in political science to the University of Amsterdam in the Netherlands. He will research the effects of European integration on Dutch higher education policy. Two other Scranton students were named national finalists.

One Scranton student was awarded a Fulbright Fellowship in 2006. Amy Martin, who majored elementary education, received an English Teaching Assistantship to South Korea.

Two Scranton students were awarded Fulbright Fellowships in 2005. Maria Hundemer, who majored in English and philosophy, won a Fulbright Teaching Assistantship in English to South Korea. George Griffin, who majored in German, will spend the year in Germany on a Fulbright/Padagogischer Aus tauschdienst Teaching Assistantship in English. Both will teach English as a second language while pursuing independent research projects.

Dr. Susan Trusler 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, 1987-2007

1987

Susan Conway........................................... Germany
Kathleen Gallagher (Rotary)..........................Nepal
Margaret Keen........................................... France
Kevin Wright.......................................... Finland
Christopher Warren ............................
Katherine Roth ..............................
Karen Towers ..................................
Matthew Pierlott .............................
Kevin Bisignani ................................

Michael Pagliarini ..................................
Robert Brennan ........................................

Renee Kupetz ....................................
Jeffrey Greer ......................................
Jason Cascarino ..............................

Brian Zarzecki ....................................
Karis Lawlor ......................................

Jennifer Seva ........................................
Colleen McInerney ................................
Alan Landis ........................................
Jennifer Kelly .....................................
Susan Kavalow ....................................

Kim Marie Newak ..............................
1991

Daniel Jurgelewicz ..............................
Finland
Thomas Spoto .................................
Singapore

1992

Maureen Cronin ............................South Korea
Alissa Giancarlo ...............................Germany
Thomas Kish ......................................Hungary
Jennifer Murphy ..............................Denmark
Neal Rightley .................................Germany
Salvatore Tiritto ..............................Finland
Denise Udvarhelyi ..............................New Zealand

1993

Timothy Gallagher ............................New Zealand
Susan Kavalow ............................South Korea
Jennifer Kelly .................................Uruguay
Alan Landis .................................Colombia
Beth LiVolsi .................................Italy
Colleen McNerney ............................Australia
Jennifer Seva ....................................Argentina

1994

Margaret Mary Hrlicka ....................Spain
Terrence Kosseg ..............Namibia
KarJs Lawlor .................................Germany
Brian ZarzeckJ ...............................Namibia

1995

Jason Casciano ...............................New Zealand
Jeffrey Greer .................................St. Lanka
Renee KuperJ .................................Germany

1996

Robert Brennan .................................Israel
Michael Pagliarini ............................France
Michael Tracy .................................New Zealand

1998

Kevin Biugnani ...............................Germany
Jennifer Cahill ...............................Japan
Matthew Pierlott ............................South Korea
Karen Towers .................................Mauritius

1999

Alison Gluckslni ...............................Japan
Katherine Roth ...............................United Kingdom
Christopher Warren .........................Guatemala

2000

Lisa Angelella .................................India
Amy Patuto .................................South Korea

2001

Maria Atzzert .................................South Korea
Lisa Biagiotti .................................Italy
Erin Friel .................................Germany
Carol Gleeson .................................Paraguay
Nicole Heron .................................Finland
Clifford McMurray ...........................Germany
Scan St. Ledger (Rotary) ........................Italy

2002

Joy Oliver .................................Netherlands
Kristy Petry ..............................Argentina
Nicole Negowensi (Rotary) ........................Ireland

2003

Jennifer Bradley ..............................South Korea
Elliot Gougeon ...............................Germany
Nicole Sublette ..............................South Korea

2005

George Griffin .........................Germany
Maria Hundersmarck .........................South Korea

2006

Amy Martin .................................South Korea

2007

Rosemary Moran ..............................South Korea
Thomas Murtough ............................South Korea
Vincent Solomono .........................Netherlands

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 the top 20 students nationally selected by USA Today for its All-USA Academic First Team. Ms. George was also awarded a Jack Kent Cooke Graduate Scholarship, which will cover all of her expenses at Harvard Medical School. Han Li, a 2007 graduate, was named a National Science Foundation Graduate Research fellow. Vincent Solomono, junior political science major and student body president, 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, became Scranton's second Uddal Scholar, one of only 80 students nationally to receive this award.

In 2004-05, Tina Marie George, named above, became Scranton's sixth Truman Scholar. She was also Scranton's first Uddal Scholarship recipient. Two students, Timothy Secher, 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 bio-mathematics and philosophy major, and Christopher Corey, a biochemistry, biomathematics and biology 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.

In 2002-03, Sara Shoener, named above, became Scranton’s fifth Truman Scholar. Michael Venn, a political science and international studies major, was one of 43 students to be awarded a Jack Kent Cooke Graduate Scholarship. Christopher Corey, named above, received a Goldwater Scholarship. Talia Argondezzi, an English and philosophy major, was one of three students in the country to receive a senior scholarship from Sigma Tau Delta, the International English Honor Society; she also received a Sigma Tau Delta essay award.

**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 2006-07, Coral Striedny, 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; honored for his achievements in cross-country running, John will use his scholarship in medical school. Taryn Mellday, a physical therapy major, was one of 29 female athletes recognized for a winter sport; a basketball player who holds many athletic awards, Taryn will apply her NCAA scholarship to her graduate work in physical therapy. Two alumni,
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

The Admissions Committee of The University of Scranton will make the final decision on applications for admission. In reaching this decision, the Committee will consider a number of factors: demonstrated evidence of a student’s academic ability, intellectual curiosity, strength of character and motivation; the student’s high school record, class rank, extracurricular activities, and SAT and/or ACT scores.

University Information

The Office of 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 Admissions
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: www.scranton.edu/admissions

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.

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.

Science includes biology, chemistry, physics and all college-preparatory courses.

Campus Visit Programs

The best way to experience The University of Scranton is to visit for yourself. Individuals can schedule a visit that includes a campus tour, a group information session or an appointment with an Admissions Counselor. Additional opportunities include two fall Open Houses, a Royal Nights overnight program and a Freshman Preview Day in the spring for accepted high school seniors. Tours and group information sessions are available throughout the year, Monday through Friday and select Saturdays. To arrange a visit, please call 1-888-SCRANTON (choose option “1”) or (570) 941-6654.

<table>
<thead>
<tr>
<th>High School Unit</th>
<th>Arts</th>
<th>Business, Science, OT, Engineering</th>
<th>Education, Social Science</th>
</tr>
</thead>
<tbody>
<tr>
<td>English</td>
<td>4</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>History and Social Science</td>
<td>2</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Foreign Language</td>
<td>2</td>
<td>2+</td>
<td>2+</td>
</tr>
<tr>
<td>College-Preparatory Mathematics</td>
<td>3</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>Science</td>
<td>1</td>
<td>2+</td>
<td>1+</td>
</tr>
<tr>
<td>Other acceptable units</td>
<td>4</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Total</td>
<td>16+</td>
<td>16+</td>
<td>16+</td>
</tr>
</tbody>
</table>

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 four- to six-week turnaround and a preferred final application deadline of March 1.

Students may apply using The University of Scranton’s paper or online application, or the Common Application’s paper or online application. Students should also submit an official high school transcript from their guidance office, an essay and a letter of recommendation. The SAT I: Reasoning Test (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.

Advancement Committee will consider applicants’ best math and critical reading scores on the SAT I test. The Committee will not consider the scores of the SAT I writing test in the application process. 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.

Beginning in the fall of 2007, a select group of students may apply SAT 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 optional, a student must be in the top 20% of the class or have a 3.5 GPA (4.0 scale) if the school does not report rank. Students applying SAT optional must submit two graded papers from high school and may be required to do an interview.

Students applying to the Nursing, Occupational Therapy or Doctor of Physical Therapy (guaranteed admission) programs must submit standardized scores and may not apply SAT optional.

Application Fees and Confirmation

A non-refundable fee of $40.00 should accompany the application. No fee is charged for online applications submitted via the University’s Web site (www.scranton.edu/apply) or for Common Applications submitted online. The application fee is also waived for those who visit campus or attend one of our fall Open Houses. Accepted students who wish to confirm their place in the freshman class should submit a non-refundable fee by May 1 of $300 for residential students or $150 for commuter students.

Advanced Placement

Students 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, www.collegeboard.com. Students can have their results sent automatically to the University by providing the school code (2929). In most cases, a minimum score of “3” (non science) or “4” (math/science) may earn advanced placement with 3 to 6 credits. For more information on AP and IB, visit www.scranton.edu/admissions.

International Students

The University of Scranton has been educating international students since 1946 and remains committed to that tradition. At present, approximately 50 different countries are represented by undergraduate and graduate students.
The University's Office of International Programs and Services and the International Center provide 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 International Programs and Services.

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.

**International Baccalaureate Policy**

The University of Scranton recognizes the academic quality of the International Baccalaureate (IB) curriculum. Students who have completed higher-level IB courses and who demonstrate a substantial level of achievement as represented by their performance on the relevant IB examination(s) may earn advanced placement credit. Please contact the Admissions Office for details.

**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 to students who have demonstrated achievement and a desire to attend college but who need to improve their verbal skills. The Summer Bridge program assists students in making the transition from high school to college and in the future development of reading and writing skills. The summer program and mentoring during the academic year are designed to help students achieve their potential and succeed in their degree program. Students are chosen on the basis of a careful examination of high school transcripts, standardized test scores, and extracurricular activities.

**Transfer Student Admission**

Students who wish to transfer to The University of Scranton must submit applications and the usual credentials: official high school records, SAT scores, a personal statement, a letter of recommendation, and transcript(s) from the college(s) attended. All official transcripts must be submitted regardless of whether or not credit was earned. At the discretion of the Admissions Committee, students from other accredited colleges may be admitted provided:

1. The courses to be transferred are equivalent or comparable to courses offered at The University of Scranton.
2. Students are required to follow all requirements prescribed for the degree program at The University of Scranton.
3. No credit will be given for courses with grades less than C.

Transfer credit is reviewed on an individual basis. Students transferring are required to earn a minimum of 30 credits for an associate's degree or 63 credits for a baccalaureate degree at The University of Scranton. Special orientation sessions are held for transfer students. 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.

**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.

**High School Scholars**

High school students who have completed their junior year with a minimum of a B+ grade average may take one University course each term until they graduate from high school. Courses may be taken for credit or for audit at a special tuition rate of $175 per credit. Students may enroll for a maximum of three credits per session. Individual exceptions may be made if GPA/SAT scores substantiate the request. Courses available are typical freshman-level courses that are accepted toward a degree at The University of Scranton. These courses generally transfer to other regionally accredited colleges and universities. The University of Scranton cannot, however, guarantee transferability. Registrations will be processed on a space-available basis. Students will be responsible for tuition and applicable fees. Further information is available from the Office of Admissions by phone at (570) 941-7540 or by e-mail to admissions@scranton.edu.

**Tuition Payments**

Each semester an invoice displaying your courses, your room assignments, and your semester charges will be mailed to your mailing address. The tuition and fees are payable by the due date listed on the invoice. You must return the Remittance Form attached to the bottom of the invoice with payment by the due date. Students paying their bills via Tuition Management System (TMS) or with financial aid must also return the Remittance Form indicating their source of funding.

Without exception, late 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 a professional agency, Tuition Management Services. For application information, please call 1-800-895-9061 or contact them on the Web at www.afford.com. Brochures inviting family participation in a 10-month payment plan are mailed to parents of all incoming students by May of each year. Also, an enrollment form inviting family participation in a four-month semester plan will be included with the fall billing in July and the spring billing in December.

**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.
Tuition and Fees 2007-08
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, telephone charges, special service fees and laboratory fees. Room and board charges are assessed based on the housing option and meal plan selected.

Tuition
Full-Time Student Tuition, per year..........................................................$28,458
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 $758 per credit in the fall, intersession and spring and $621 in the summer. This tuition rate excludes students enrolled prior to fall 2004 in the Physical Therapy program.

Tuition for Special Programs: Special Jesuit Liberal Arts 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 year ..........................................................$7,276 (single), $6,616 (double)
Madison Square, Mulberry Plaza

Class A, per year ..........................................................$6,616
Katharine Drexel, McCormick, Redington, Elizabeth Ann Seton

Class B, per year ..........................................................$6,256
Blair, Carmelita, Casey, Denis Edouard, Driscoll, Fayette, Fitch, Gannon, Gonnage, Hafy, Hannan, Hopkins, Jerrett, Kozaka, Lavis, Leahy, Lisa, Luzerne, Lynett, Martin, McCormick, McCourt, McGowan, McKenna, Montgomery, Nevills, Southwell, Tioga, Wayne

Other Room Charges
Room Damage Deposit ..................................................................................$200

Summer Session Housing
Summer room charges (sessions I and II) ..........................................................$527
“G” session .................................................................................................$723
Summer Bridge Program ..................................................................................$921

Residency Requirement
The University requires all first- and second-year undergraduate students to live on 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.

19 meals per week, per year .................................................................................$4,354
$566 in Intersession. All freshmen living in University housing must participate in the 19-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 year .................................................................................$3,788
$480 in Intersession
10 meals per week, per year .................................................................................$3,068
$380 in Intersession

Ordinary Fees
University Fee, per year ..................................................................................$300
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 ..........................................................................................................
Graduating students only: Commencement/Yearbook Fee ..............................................$25
Freshmen/transfer students only: Orientation Fee .....................................................$200

Laboratory 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, 106, 107) .................$25

**Communication**
- Radio Lab Fee, per course, per semester .....................................................................$50
- TV Lab Fee, per course, per semester ...........................................................................$50

**History**
- Film Screen Fee, History 212 & 218, per course, per semester .................................$30

**Political Science**
- European Union Simulation Fee, PS 331, per course, per semester .........................$100

**Foreign Language**
- Language Lab Fee, per course, per semester .............................................................$50

**Nursing**
- Clinical Lab, per lab hour, per semester, undergraduate .............................................$40
- Clinical Lab, per clinical course, RN, NURS 481 and 490 ......................................$110
- Assessment Fee, Juniors, per semester ......................................................................$40
- Assessment Fee, Seniors, per semester .......................................................................$50

**Occupational Therapy**
- Clinical Lab, per hour, per semester ...........................................................................$40
Art and Music
Music Fee (Music 111, 112, 219) ................................................................. $30
All Art Courses Lab Fee, per course, per semester .............................. $70
All Art History Courses (except ARTH 140), per course, per semester $30
Art/Music (ARMU 140) ............................................................................... $30
Art/Music (ARMU 141) ............................................................................... $45

Special Service Fees
Late Tuition Payment Fee ........................................................................ $100
Returned Check Fee .................................................................................. $25
Late Registration Fee .................................................................................. $20
Requested change of schedule after classes begin ................................. $15
Change of Major Fee .................................................................................. $15
Off-Campus Course Permission Fee ....................................................... $25
Certified transcript (per copy) ................................................................. $10

Tuition Refund Schedule

Fall/Spring Semester
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 of the semester ............................................. no refund

Intersession/Summer Sessions
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

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 policies 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%. A completed form must be filed in the Bursar’s Office each year to receive the reduction for that year. Forms and additional information may be obtained from the Bursar’s Office.

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
Student Health Services can provide information about alternative health insurance plans for students who do not have insurance coverage or coverage that is inadequate to meet their needs while enrolled. All students must be covered by adequate health insurance because unexpected serious illness or injury can have a great impact on college financial plans. University fees cover on-campus health services. Care by community providers such as laboratory, x-ray, private physicians or specialists, hospital emergency department visits, or hospital admission are subject to insurance coverage or private payment.

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, and use of athletic facilities and the library. The Royal Card is used for meals in the dining facilities, residence hall access, photocopying in the library, and may be used as a substitute for cash at many locations on campus. For more information about the Royal Card, contact the Royal Card Office at (570) 941-6181 or www.scranton.edu/royalcard.
The University will help as many qualified students as possible to attain a college education. For this purpose the University maintains an Office of Financial Aid, and all inquiries concerning such assistance should be made to: Director of Financial Aid, 401 St. Thomas Hall, telephone: (570) 941-7700, fax: (570) 941-4370. Assistance is also available via the Web at www.scranton.edu/financialaid or by e-mail to finaid@scranton.edu.
Procedures for Applying for Scholarships and Financial Aid

All 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 15; for returning students, April 15. FAFSA forms are available from high school guidance offices, from the University’s Financial Aid Office and online at www.fafsa.ed.gov.

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.

Credit Requirements

Full-time students are expected to complete their undergraduate degrees within six academic years. Part-time students are allotted a period of time that shall not exceed 12 academic years. Students enrolled in the College of Arts and Sciences, the Kania School of Management and the J.A. Panuska, S.J., College of Professional Studies who are full-time students must successfully complete a minimum of 24 credits per academic year. Students enrolled through the College of Graduate and Continuing Education as full-time undergraduate students must complete a minimum of 21 credits, three-quarter-time students a minimum of 15 credits, half-time students a minimum of 9 credits and less-than-half-time students a minimum of 6 credits per academic year. Students receiving PHEAA grants are required to earn the minimum number of credits required by the State Agency.

Academic Requirements

All students must maintain a cumulative grade point average of 2.00 in order to demonstrate satisfactory academic standing. Academic scholarship recipients are required to maintain a cumulative grade point average of 2.50, 3.00 or 3.25 depending on the scholarship.

Students should consult the Comprehensive Guide to Financial Aid Programs for a full definition of Satisfactory Progress Standards and the appeals process. The guide is available at www.scranton.edu/financialaid.

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 will have their federal financial aid (Pell Grants, Supplemental Educational Opportunity Grants, Academic Competitiveness Grants, National Science and Mathematics Access to Retain Talent Grants, Perkins Loans, 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. 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 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 www.scranton.edu/financialaid for specific information on both state and University of Scranton aid adjustment policies due to complete withdrawals during a term.

Loan and Grant Programs

Federal Perkins Loan Program

The University administers this federal program, which provides 5% interest loans for needy students. A Free Application for Federal Student Aid (FAFSA) is required of all loan applicants. On the FAFSA, indicate that you are interested in student loans.

Federal Stafford Loan Program

Available in cooperation with community banks, credit unions, and savings and loan associations. The University of Scranton’s preferred lender is PNC Bank. Freshmen may borrow a maximum of $3,500: sophomores, $4,500; and juniors and seniors, $5,500 per academic grade level. The aggregate maximum for undergraduate study is $23,000. Depending on their grade level, independent students may borrow $4,000-$5,500 in unsubsidized Stafford loans. The Financial Aid Office will pre-certify a loan up to the maximum grade level amount. A Free Application for Federal Student Aid (FAFSA) is required for all loan applicants. On the FAFSA, indicate that you are interested in student loans.

Federal Parent PLUS Loan

Available for parents of dependent students. Credit-worthy parents are able to borrow up to the difference between a student’s cost of attendance and the total financial aid received. Additional details and applications are available from The University of Scranton’s preferred lender, PNC Bank.

Pennsylvania Higher Education Assistance Agency (PHEAA)

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

Federal Supplemental Educational Opportunity Grant

A federal campus-based program administered by the University. Amounts may range from $200 to $2,500 per year to students who demonstrate exceptional need. Priority is given to Pell recipients. A FAFSA is required for this program.

Federal Pell Grant

Provides federal grants, ranging from $400 to $4,310 per academic year, based on financial need. A FAFSA is required.

Academic Competitiveness Grants (ACG)

Federal, need- and merit-based, two-year grant. In order to be eligible, a student must be enrolled full time, be eligible for the Pell Grant within the same term, be a U.S. citizen, and have graduated from a rigorous secondary program of study as defined by the U.S. Department of Education. The annual award is $750 for the first academic year and $1,300 for the second academic year. A cumulative GPA of 3.0 at the conclusion of the first academic year is necessary for the second-year award.

National Science and Mathematics Access to Retain Talent (SMART) Grant

In order to be eligible, a student must be enrolled full time, be eligible for the Pell Grant within the same term, be a U.S. citizen, and be enrolled in eligible majors as designated by the U.S. Department of Education. The annual award is $4,000. A cumulative GPA of 3.0 is required for each eligible term.

Other Financial Aid Programs

University of Scranton Awards

The University offers a number of awards based on academic merit (see “Scholarships”) and financial need. All accepted freshmen and transfer students are automatically evaluated academically for scholarship aid. In order to be considered for need-based aid, students must file a FAFSA.

Federal Work-Study Program

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.
Veterans’ Benefits
Veterans and eligible dependents should consult their local Veterans Administration counselor in order to establish their eligibility for participation. The Registrar’s Office certifies enrollment for eligible veterans with the Veterans Administration (VA form 22-1999).

U.S. Army ROTC Scholarships
Contact the Military Science Department in Rock Hall at (570) 941-7457 or (570) 941-6336.

U.S. Air Force ROTC Scholarships
For information, contact the Aerospace Studies Department at 1-800-945-5378, ext. 4860.

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

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 and Loyola (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.

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.

Endowed Scholarships
The Eugene J. and Elizabeth J. Agnone Scholarship: This scholarship, established in 1997, aids needy students 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 financial need. First preference is given to employees of the Alperin family companies and their families, but all worthy students from Lackawanna County and Northeastern Pennsylvania are considered.
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 premedical or allied health sciences program.
The Frank A. 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. Bagdziuski 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 theatre students at the University.
The Edward F. Bartley 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 students from Lackawanna County, with preference given to students from the Mid-Valley area.
The Anne M. Bednar Scholarship: This scholarship was established in 2001 by Robert J. Bednar ’69 in honor of his mother, Anne. The scholarship benefits adult students 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 Rev. Paul R. Beining, S.J., Scholarship: This scholarship, established by the Scranton Jesuit Community to honor one of its own, is for a student born and raised in Northeastern Pennsylvania and who has demonstrated financial need. First consideration is given to a biology major who maintains an overall B average.
The Velio E. Berardis, M.D., Memorial Scholarship: In 1989, Mrs. Dorothy Berardis established a scholarship to honor the memory of her husband Velio E. Berardis, M.D. This scholarship provides awards, based on merit and need, to senior pre-medical students. Special preference is given to those who plan to attend Jefferson Medical College.
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. Bilksi Scholarship: Established in 2006 by Mrs. Mary Bilksi Wardach in memory of her nephew, Monsignor 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 Chester and Veronica Buchinski Memorial Scholarship: This scholarship was established in 1984 by James Summers in honor of the executive vice president of the University who died in office in 1981. A second Butler Scholarship, for students from Scranton High School, was established in 1985 by John A. McCanne, a classmate of Father Butler at Georgetown University.
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 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, one or both of whose parents were or are parishioners of St. Ignatius Parish, Kingston.
The Timothy J. Casey Memorial Scholarship/Class of 2003: This is a need-based scholarship with first preference given to students in their senior year majoring in History who are also involved in student activities.
The Corram Manufacturing Scholarship: This scholarship was established in 1999. Sons and
daughters of Cinram Manufacturing employees are eligible for this scholarship. Employees must 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 based on financial need and academic merit.

The James J. Claus 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. Claus Scholarship: An endowed scholarship was established in 1980 to honor the memory of Jon A. Claus, son of Dr. and Mrs. Thomas F. Claus of Justus. Income from the scholarship is distributed to deserving young men and women.

The Catherine "Cate" Manley Coffey Fellowship Fund: Established in memory of a beloved 1986 graduate and seven-year term president-elect of the University’s 2003 National Alumni Society upon her untimely death in June 2002 due to a tragic automobile accident. The Cate Coffey fund is awarded to students entering their senior year in the Kania School of Management who have demonstrated exemplary academic achievement during their three previous years of study at the University.

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 student from Pennsylvania, New Jersey or Maryland who is majoring in computing sciences.

The Connaught Laboratories Endowment: This scholarship is available to any students deserving of financial support as determined by the Financial Aid Office.

The James A. 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 in memory of 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 schoolteachers.

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

The Michael S. Costello Memorial Scholarship: This scholarship is dedicated in memory of Michael Costello, who was a member of the Class of 1999. He 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 who meet the University's admission requirements, with preference given to students majoring in foreign languages.

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

The William J. Cusick Purple Club Scholarship in Memory of Frank J. O’Hara: 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 Harold Davis, M.D., 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 Rev. Royden B. Davis, 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 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 Eugene J. Donahue 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 in the College of Graduate and Continuing Education, and first consideration is given to students residing in Lackawanna County.

The Judith A. Doyle Scholarship: This scholarship was created by Joseph T. Doyle ’69 in honor of his wife and in recognition of his Jesuit education at The University of Scranton. The scholarship provides financial assistance to deserving and needy students.

The Adam and Anna Dranginis Scholarship: Established in 2000 by Edward Dranginis to honor his parents’ memory. Mr. 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 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 was killed 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 Cyberbullying Scholarship: This scholarship was established in 2018 for students who have demonstrated financial need who meet the University’s admission criteria.

The Robert I. Edelsohn Scholarship: In 1964, a sum was bequeathed in the estate of Robert I. Edelsohn, a Polish immigrant who became a Scranton businessman and realtor. Income provides scholarships for needy and deserving students at the University.

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 received at The University of Scranton. It is open to any student demonstrating personal financial need.

The Peter J. Farrell and Maida Lippert Farrell Scholarship: Proceeds from this scholarship, established in 1988 by Professor Matthew C. Farrell, Ph.D., are intended for students of Native American ancestry.

The Neal J. Fausla Memorial Scholarship: Established in 2004 by Mrs. Joyce Fausla in loving memory of her husband, Neal Fausla ’69, this scholarship is awarded to employees of Gerard’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 for students who demonstrate a commitment to the areas of history, music, forensics and theatre, with preference given to students from Lackawanna County.

The Lauren Finn Memorial Scholarship: Lauren 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 student at the University of Scranton. Preference is given to residents of Lackawanna County.
The University’s Financial Aid Office selects students based on need and merit. The scholarship is awarded to any qualified student, based on a combination of need and merit as determined by the University’s Financial Aid Office.

The William H. Finn Memorial Scholarship: This scholarship was established in 2004 in fond memory of William H. Finn, former senior managing director of Bear, Stearns & Co., Inc., located in New York City. This scholarship is awarded to any qualified student, based on a combination of need and merit as determined by the University’s Financial Aid Office.

The Timothy J. Finnerty ’90 Memorial Scholarship: Timothy Finnerty’s wife, Theresa, created this scholarship in his memory. Timothy 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. The recipient must also meet the University’s financial aid guidelines and be enrolled in the Kania School of Management.

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

The Rev. John J. Fitzpatrick, S.J., Scholarship: This scholarship honors the 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 who are enrolled in the College of Graduate and Continuing Education. The scholarship benefits deserving and needy students of all income families.

The James H. Foy, M.D., Memorial Scholarship: Established in 1987 by Dr. and Mrs. Joseph J. Rupp to honor Dr. Foy, whose encouragement and support helped Dr. Rupp in his education, the scholarship is given to premedical students who also demonstrate proficiency in the humanities.

The James M. Franey Scholarship: This scholarship, started from a bequest of the estate of Mr. 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 deserving and financially needy students each year.

The Joseph F. Gallagher 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 Katherine E. and James A. Geiger Scholarship: University graduate Matthew Geiger ‘81 dedicated this scholarship to his parents. To qualify for this scholarship, the student must be from a family of four or more children.

The Morris and Mae Gelb Scholarship: Established in 1989 through gifts from the Gelbs and members of their family and friends, this scholarship benefits deserving and needy students of all faiths attending the University.

The John J. Geron Scholarship: This scholarship was created by John Geron ’66. The Financial Aid Office selects the recipient using need-based guidelines.

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

The Dr. A. John and Mrs. S. Maria Giunta Scholarship: Professor Giunta created this scholarship out of his loyalty to The University of Scranton and in appreciation for the fine education his own children received here. The scholarship is given to students pursuing degrees in economics.

The Edward J. and Isabel Gradey Scholarship: A bequest in the will of Edward J. Gradey planted the seed for this scholarship. Students must meet The University’s financial aid eligibility criteria.

The Peter S. Graybar 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 Scholarship: Established to honor the memory of a University of Scranton alumnus, this scholarship is for deserving young men and women who live in Lackawanna County.

The Irving and Edythe Grossman Scholarship: This scholarship was created out of the generosity of Irving and Edythe Grossman and is a memorial in their honor. Eligible students must demonstrate academic achievement and participate in community service.

The Robert J. Gummer Memorial Scholarship: In loving memory of their father, the children of Robert J. Gummer established this academic and need-based scholarship in 2000, in 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’s mother is remembered through a scholarship designed to assist students from low-income families.

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

The John and Lucille Jerrett Guzey Scholarship: Begun 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 qualified and deserving students from Abington Heights, Valley View, Mid-Valley or Lackawanna high schools. The recipient is an incoming freshman who demonstrates financial need.

The Rev. Joseph M. Hamernick, 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 Rev. Dexter Hanley, S.J., Scholarship: This scholarship, named for the late Dexter Hanley, S.J., former president of The University of Scranton, assists undergraduates enrolled in the College of Graduate and Continuing Education.

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 who intend to enroll 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 that of 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, benefits 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, who was a general manager of GE’s Hiergesell plant and 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 Frank J. Holmes Memorial Scholarship: Established in 2005 by the Holmes family, the Frank J. Holmes Memorial 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., Scholarship: Dr. Holmes, an alumnus of the Class of 1961, and his wife started this scholarship to provide aid to junior and senior psychology majors.

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

The Frank and Jean Hubbard Scholarship: This scholarship, established through a generous gift from Frank and Jean Hubbard, is for 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 to receive the scholarship, which is renewable on the basis of academic achievement.

The Edward Dennis Jacobs Sr. and Edward Dennis Jacobs Jr. Scholarship: This scholarship, established in 2005, is awarded to students in need of financial aid who might not otherwise be able to attend the University.

The Anastasia Jaditz ’06 Memorial Scholarship: This scholarship was established in 2006 in memory of Anastasia “Stacie” Jaditz.

The Albert R. and Dolores T. Jasuta Memorial Scholarship: In 2005, Albert Jasuta was a 1943 graduate of the University. Both Mr. and Mrs. Jasuta were passionate supporters of the University, its good works and its alumni programs. This scholarship is awarded to any qualified student 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 need-based scholarship aid to deserving students. Most scholarships are based on financial need and academic achievement.

The Jetro Scholarship: Established by a University faculty member, Dr. Everett R. Brown, this scholarship is awarded to a freshman management student.

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

The Lanahan Geacquid Scholarship: Established in 1996, this scholarship benefits qualified, female first-year students with demonstrated need. Preference is given to students pursuing degrees in elementary education.

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

The Anthony A. Lawrence, Esq., Memorial Scholarship: Mrs. Elizabeth Lawrence established this scholarship in 2002 to honor her husband, Anthony A. Lawrence, Esq., ’39, Arty. Lawrence enjoyed a long and distinguished career that earned him recognition in the first edition of Who’s Who in American Law.

The Edward P. Leahy Scholarship: This scholarship was established in 1989 by Edward R. Leahy, Esq., ’68, in honor of his late uncle and provides aid to needy students.

The Rev. John J. Levko, S.J., Scholarship: Established in 2003 to honor Rev. John J. Levko, S.J., to students with demonstrated need. This scholarship is awarded to students from Lackawanna County who are in financial need. Preference is given to students attending Old Forge High School.

The Rev. Frank J. MacEntee, S.J., Scholarship: This scholarship, established by the MacEntee family in memory of their beloved parents, this scholarship assists deserving students with their education costs.

The Rev. Frank J. MacEntee, 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 Rev. John J. Levko, S.J., Scholarship: Established in 2003 to honor Rev. John J. Levko, S.J., to students with demonstrated need. This scholarship is awarded to students from Lackawanna County who are in financial need. Preference is given to students attending Old Forge High School.

The Rev. John J. Levko, S.J., Scholarship: Established in 2003 to honor Rev. John J. Levko, S.J., to students with demonstrated need. This scholarship is awarded to students from Lackawanna County who are in financial need. Preference is given to students attending Old Forge High School.

The Beth Anne and Brian S. Mackie Memorial Scholarship: This scholarship was created in 1991 as a memorial to Beth Anne Mackie by her parents and renamed in 1998 after the death of Beth Anne’s brother, Brian. The eligible student must be a psychology major who demonstrates academic excellence.

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

The Edward J. and Alice Manley Scholarship: Mrs. Manley ’59, a member of the University’s Board of Trustees, and her husband established this scholarship for students who live in Lackawanna County.

The Mariotti Family Scholarship: This need-based academic scholarship was established by Dr. John Mariotti ’75 and Dr. Margaret Quinn Mariotti, a University trustee, to benefit incoming freshmen from St. Augustine College Preparatory School in Richland, N.J. Students from Lackawanna County will also be 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 John P. Martin, Ed.D., Scholarship: Established in 2002, this scholarship is for undergraduate students preparing for the priesthood.

The Rev. Thomas D. Masterson, S.J., Scholarship: This scholarship was established by the Scranton Jesuit Community and friends of Fr. Masterson in honor of the 50th anniversary of his ordination into the priesthood. The need-based scholarship is for graduates of Loyola Blakefield High School in Towson, Maryland.

The Martin L. Mattei Memorial Scholarship: Martin 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 Zigmunt 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 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.

The Robert L. McDevitt, K.S.G., Scholarship: This scholarship, established in 1977, provides assistance to qualified and deserving College of Graduate and Continuing Education undergraduate students. The scholarship was established by Robert L. McDevitt, K.S.G., a Georgetown University classmate and longtime friend of the late Rev. Deter L. Hanley, S.J., who served as president of the University from 1970 to 1975.

The Patrick J. McGeehan 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 for residents of Luzerne County.

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

The Joseph J. McGrail, CPA, 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 benefiting 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 Scholarship: The scholarship was established in 1985 by former trustee Thomas E. Sheridan ’60 and many other alumni, students, family and friends to honor Professor John P. McLean, a faculty member for over 50 years. It is presented to deserving accounting students.

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.

The Joseph R. and Barbara J. Mesko 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 Andrews and Margaret Chorba Mezick Scholarship: This scholarship, established by James A. and Mary P. Mezick in honor of Dr. Mezick’s parents, is given each year to a qualified incoming freshman, with preference given to students with demonstrated need from the Mid-Valley area.

The Rev. J. Patrick Mohr, S.J., Scholarship: This need-based scholarship, established by the Scranton Jesuit Community to honor one of its own, is for graduates of Gonzaga High School in Washington, D.C.

The Angelo H. Montrone Scholarship: This scholarship was established by Paul M. Montrone, Ph.D., ’62, president of the Henley Group, Inc., to honor his father. It assists a Kania School of Management student who best exemplifies Dr. Montrone’s father’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 and Ann Moskovitz Scholarship: Mr. and Mrs. Moskovitz, community leaders and friends of the University, established this scholarship for students who intend to pursue careers in business or science, with first preference given to those who live in Lackawanna County.

The Joseph F. Mullaney 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., and Judge James M. Munley to honor their father, Robert W. Munley. It supports deserving 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 needy and deserving students.

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

The Mary and James Murphy Scholarship: This scholarship was established in 2005 by Justin and Elizabeth Murphy to honor Justin’s parents. It is a need-based scholarship as defined by the Financial Aid Office.

The James Nasser Family Scholarship: This scholarship was established in 1986 by Mr. and Mrs. James R. Nasser. Preference is given to needy pre-med students from Lackawanna County.

The Newcombe Endowed Scholarship: A series of grants from the Charlotte W. Newcombe Foundation, along with matching funds from the University, established this scholarship, which provides financial assistance to mature, second-career female students.

The R. Barrett Noone, M.D., 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 a pre-med major.

The Marian R. Oates 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 Raymond S. O’Connell Scholarship: Shortly before his death in 1981, Raymond S. O’Connell ’42 established a scholarship for needy students. After his death, his sister, Sara E. O’Connell, completed the gift.

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

The Frank O’Hara Scholarship: This scholarship was established in 1988 by friends and family of “Mr. University,” Frank O’Hara. Mr. O’Hara served in many capacities over a long career with the University. This scholarship, established in his memory, provides assistance to deserving and needy students.

The Marian M. and Patrick F. O’Hara Scholarship: Income from an endowment provides unrestricted scholarships to deserving high school seniors.

The Oppenheim Family Scholarship: This scholarship was established by the Oppenheim family, who for many years owned and operated Oppen-
The Rev. J. J. Quinn, 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 Peter Pestinikas Memorial Scholarship: In 2005, a gift was made to the University through the estate of Peter Pestinikas. The scholarship benefits students who have financial need as determined by the Financial Aid Office.

The Dr. Andrew W. Plonsky Scholarship: Dr. Plonsky ‘40, longtime faculty member 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. Poinnard, M.D., Scholarship: Mrs. JoAnne Poinnard established this scholarship in memory of her husband and University alumnus. The scholarship assists deserving students in the pre-medical program.

The Rev. George C. Powell and Mgr. John K. Powell Memorial Scholarship: The Powell family established this scholarship to provide financial assistance to deserving and needy students who also demonstrate good character and leadership qualities.

The Rev. Edward R. Powers, S.J., Scholarship: This scholarship provides financial assistance based on academic excellence as well as demonstrated need.

The Ernest D. Preatre Sr. Memorial Scholarship: The family of Ernest D. Preatre Sr., Esq., established this scholarship in 1982. First consideration is given to needy students who are residents of Lackawanna County.

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, demonstrated during the 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 started 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 Frank X. Ratchford Memorial Scholarship: Mrs. Patricia A. Ratchford and her family established this scholarship in memory of Mr. Ratchford '61. 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 Scholarship: This scholarship was established through a bequest from Mrs. Redington, a former trustee and longtime friend of the University and its students. The scholarship benefits students who are most in need of financial support to pursue their education.

The Francis E. and Elizabeth 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. Some portion of the income each year supports scholarships for students from the Republic of Ireland.

The John Charles 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., many children in school needing parental support).

The Raymond M. Reed 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. and Katherine T. Reilly Scholarship: This scholarship is awarded to undergraduates enrolled in the College of Graduate and Continuing Education who are residents of Scranton. The scholarship was established by Evelyn M. Reilly '52 and Katherine T. Reilly '53.

The Joseph C. Reilly Scholarship Fund: This scholarship is awarded to qualified students who graduated from Scranton public schools and who intend to pursue courses of study in the sciences while at The University of Scranton. It was established by Joseph C. Reilly and Katherine T. Reilly '53.

The Dr. Richard A. Rendich Educational Scholarship: This endowed scholarship was established by the family of Grace Rendich, a University alumna, in memory of Dr. Richard A. Rendich. Income from the fund is used to assist in the education of needy young men aspiring to the priesthood.

The John M. Robinson Scholarship: This scholarship was established by John M. Robinson, who attended the University and established LPS Industries, Inc. in Newark, N.J. The scholarship assists promising and deserving 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 set up by John Rochon and the Mary Kay Foundation. It is awarded to bright female students in economic need.

The Rev. Joseph A. Rock, S.J., 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 Angelo and Rose Rotondaro, and Dr. Louis Republic of Ireland.

The Rev. Richard W. Rousseau, S.J., Scholarship: This scholarship, established by the Scranton Jesuit Community to honor one of its own, is based on academic merit and financial need.

The Robert T. Ryder Scholarship: Established in 1988 by John Dickin '67 and Coopers and Lybrand as a tribute to Mr. Robert Ryder, long-time president 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.

Scholarships and Financial Aid
The University of Scranton, is distributed each
commitment of Armond and Betty Strutin to
overall GPA.
This merit-based scholarship is awarded to a
The Stanley E. and Elaine L. Stettz Scholarship:
through the will of Mary T. Stahl and her hus
Scholarship:
Graduating senior from The University of Scran
of Dunmore High School and Bishop O’Hara
The Specialty Group, Inc., Scholarship:
with first preference given to young men
and women from the borough of Dunmore. This
scholarship will be awarded to a sophomore.
The Mary and Dana Silvon Memorial Scholar-
ship: This need-based scholarship is awarded to
an incoming freshman who is of the Catholic
The Frederick B. Smoot Scholarship: The late
Fredrick Smoot ’46 created this need-based
school with first preference given to stu-
dents from the Lake Ariei area.
The Specialty Group, Inc., Scholarship: The
school was established in 1988 for graduates of
dunmore High School and Bishop O’Hara High
School in Dunmore.
The Edward J. Spitzer Scholarship: Established
in 2004 by a bequest from Marian Spitzer Robling,
this scholarship is awarded at Class Night to a
graduating senior from The University of Scrant-
on who will be attending a post-graduate pro-
gram in the area of business administration.
The Francis J. Stahl, Class of 1935, Memorial
Scholarship: This scholarship was established
through the will of Mary T. Stahl and her hus-
bond, Francis J. Stahl ’35. The scholarship assists
local needy students.
The Stanley E. and Elaine L. Stetts 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 out of the generosity and
commitment of Armond and Betty Strutin to
The University of Scranton, is distributed each
year to deserving students.
The Tom and Salley Sullivan Scholarship: In
2000, Mr. and Mrs. Sullivan established this
scholarship to be awarded solely on the basis of
financial need, not academic merit.
The Amelia Suraci Scholarship: This scholarship
was established in 1977 by the late Mr. Frank
Suraci, chairman of Parodi Cigar Corporation, to
honor his wife, Amelia. After Mr. Suraci’s death,
contributions from the Suraci and Keating fami-
lies were added to the endowment. Each year, the
scholarship benefits deserving and needy students.
The John P. and Jean Blackledge Sweeney Family
Business Scholarship: This scholarship was
started in 2005 by John P. Sweeney ’61 and his
wife, Jean Blackledge Sweeney. The scholarship
is awarded to a student enrolled in the Kania
School of Management.
The John P. and Jean Blackledge Sweeney Family
Nursing Scholarship: This scholarship was
started in 2005 by John P. Sweeney’61 and his
wife, Jean Blackledge Sweeney. The scholarship
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 schol-
arship is awarded to deserving students based
upon financial need and/or academic achieve-
ment. Financial need is determined by the Office
of Financial Aid.
The Robert J. and Joan J. Sylvester Scholarship:
Arthur J. Kania, Esq., ’53 and Angela V. Kania
established this scholarship to honor Mr. and
Mrs. Sylvester. Mr. Sylvester retired in 2001 after
serving 18 years as the University’s Vice Presi-
dent for Institutional Advancement. The schol-
arship is for students from Lackawanna County
with first consideration to graduates of Abington
Heights, Scranton Preparatory and Valley View
high schools.
The Times-Shamrock Communications Scholar-
ship: This scholarship was established by the
Lynett-Haggerty families to provide support to
newspaper carriers, employees and children of
employees who have satisfactorily served Times-
Shamrock Communications.
The TRL Associates Scholarship: This scholar-
ship was established by Stephen P. Hrobuchak Jr.,
president of TRL, Inc., to benefit TRL employees
and their children.
The UNICO Scholarship: The UNICO Founda-
tion of the Scranton Chapter of UNICO
National, a philanthropic group, established this
scholarship in 1980 to offer financial assistance
to deserving students.
The United Gilsonite Laboratories Scholarship:
This scholarship, established in 1999, is available
to Gilsonite employees and their families.
The University of Scranton Alumni Society’s
Filiae Filique Scholarship: This scholarship
was established through contributions by the Alumni
Society, is available to children and grandchildren
of University of Scranton alumni.
William and Concerta Vigilone Scholarship
Fund: This scholarship was established in 2004
by Frank C. Longo, Esq., for students who are
studying in the Department of Foreign Lan-
guages, with preference given to students study-
ing Romance languages.
The Charles J. Volpe Sr. Memorial Scholarship:
Established in 1988 in memory of Charles J.
Volpe, a well-respected Scranton businessman
and public servant, the scholarship provides
assistance for a student entering his or her senior
year and who is majoring in history or political
science.
The Mary and Patrick Volpe Scholarship: In
honor of her parents, Angela V. Kania estab-
lished this scholarship, for graduates of Old
Forge High School 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 stu-
dent at The University of Scranton. The scholar-
ship is presented to a junior or senior who plans
to continue their education in fields related to
languages.
The Leo J. Walsh Memorial Scholarship: This
need-based scholarship is for students from
Northeastern Pennsylvania.
The Weinberger Family Scholarship: This scholar-
ship was established by Jerry Weinberger, Esq.,
in 2002 for any eligible student from Lackawanna
County as determined by the Financial Aid Office.
The Thomas P. White Scholarship: Mrs. Ilene
White established this scholarship to honor the
memory of her husband, Thomas. It is awarded
to a student for a “non-traditional” student, such as a transfer student or an individ-
ual returning to school after an absence.
The Gene and Florian Zabach Scholarship: This
scholarship is awarded to a qualified undergradu-
ate student pursuing a degree in communication.
The William Zahler Scholarship: In 1986, Mr.
and Mrs. William P. Zahler of Mayfield Heights,
Ohio, established a scholarship in memory of
their son William Zahler Jr., an associate profes-
sor of English at the University. Income from
the scholarship is distributed to deserving young
men and women.
The Rita and Bernard Bagley Memorial Scholar-
ship: Established in 1998 by the children of Mr.
and Mrs. Bagley, this scholarship is available to
residents of Sullivan County, with preference to
parishioners of St. Basil’s Church in Dushore.
The Crane Fund for Widows and Children: This
scholarship is a need-based scholarship granted to
widows and children of men who, at their death,
left their widows and children without adequate
means of support. Funding is also provided for
deserving wives and/or children of men whom
they depend on for support, but because of age
or other disability, are unable to adequately offer
support.
The Len and Deborah Gougeon St. Ann’s Scholar-
ship: Established in 1986 through a gift
from Drs. Len and Deborah Gougeon, this
scholarship, based on need, provides assistance
to a member of St. Ann’s Basilica Parish in
Scranton.
The Making a Difference in Nursing Award: This award is sponsored by Dr. Sharon Hudack
and her husband, Steve Hudack, to honor Paul-
line Mileski, RN. An annual award is made to
an LPN enrolled in the nursing program at the
University.
The William G. McGowan Scholars Program:
This scholarship was created in 1997 through the
generosity of The William G. McGowan Char-
table Fund. It is awarded to deserving students
enrolled in the Kania School of Management.
The Charlotte W. Newcomer Foundation
Scholarship: This scholarship provides aid for
mature, second-career women students.
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. It is awarded 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 resid-
ing 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.

**Pennsylvania Higher Education Foundation Scholarships:** Annual scholarships are made available for students enrolled in the nursing program.

**The Christopher Jason Perfilio ’95 Memorial Scholarship:** Christopher Perfilio passed away the summer before his senior year. His parents and older brother established this scholarship in his honor to assist philosophy and theology/religious studies students, as well as students in the Special Jesuit Liberal Arts program, who have records of high academic achievement and who demonstrate financial need.

**The Dr. William V. Rakauskas Scholarship:** Offered to seniors at Lackawanna Trail who will be attending The University of Scranton. First preference will be given to a student majoring in English, then education, and finally in any other major.

**The Dr. Bernard Shair Memorial Scholarship:** This scholarship, established by family, friends, and colleagues of Dr. Shair through the Scranton Area Foundation, is presented annually to a graduating senior of The University of Scranton who has been accepted at an accredited dental school.

**Biennial Scholarship**

**The Dr. John H. Corcoran 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 Chairs**

**The Alperin Chair in Business Administration:** Established by an endowment, this academic chair was set in place 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 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.

**The Pius X Teaching Chair of Theology:** Established in 1976 by an anonymous gift and the assignment of a matching grant from the University’s Commitment to Excellence capital campaign, this chair is occupied by a priest, or jointly by a set of priests, of the Diocese of Scranton. The chair holders are nominated by the faculty of St. Pius X Seminary and approved by the faculty of the Department of Theology/Religious Studies at the University.

**Other Endowments**

**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 fund is invested and the income therefrom is used for projects and programs concerned with the spiritual growth of students.

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

**Life on Campus**

The University of Scranton is devoted to the Jesuit maxim of cura personalis, or care for each person and the whole person. The University recognizes the integral role that campus life plays in the overall education of a student. Because in so many ways learning does not stop at the classroom door, the University provides a range of activities and support services for leadership development, for reflection, for spiritual and personal enrichment, and simply for fun and recreation.
Student Services
The University of Scranton recognizes that much of a student’s education at The University of Scranton takes place outside the classroom. The Division of Student Affairs is an integral part of the teaching and learning experience, committed to the development of the whole person in the Ignatian tradition. Students are challenged to reach beyond their perceived capabilities and to develop a passionate and restless desire for excellence that is grounded in gratitude, thereby creating a reflective and responsible vision for living, learning, and service.

Residence Life
The Residence Life system includes freshman and upperclass residences that provide secure and comfortable living spaces for study and personal development. Residential freshmen are assigned with their classmates to residence halls where they are supported in their academic programs, personal development, and leadership opportunities by Residence Life staff and Jesuit counselors. Upperclass students may select from a range of housing options that include traditional halls with single and double rooms, suite-style halls with semi-private baths, University houses and townhouse apartments. Upperclass students may also choose a Theme House that provides intense experiences in a particular area of study. 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.

The University provides in-room access to the campus communication network (televisi, computer and video, including instructional and commercial television) in all residence-hall rooms and University houses at no additional charge. In addition, light in-room housekeeping, 24-hour maintenance and 24-hour security are provided. 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 the Office of Network Resources, St. Thomas Hall, Room 102, or call (570) 941-6181.

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 intercession.

Intercession
Resident students taking one or more classes during intercession must 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 intercession are not permitted to reside in University housing. Student athletes, approved by the Office of Residence Life, may live in their rooms over intercession without taking classes.

Dining Services
Students have a choice of three cost-effective meal plans providing 19, 14 or 10 meals per week. The 19-meal plan provides three meals per day Monday through Friday, with brunch and dinner on Saturday and Sunday. The 14-meal plan provides any combination of 14 meals per week. The 10-meal plan offers students any combination of 10 meals per week. Meals are not served during vacation periods. All freshmen living in University housing must participate in the 19-meal plan during the entire freshman year. Upperclass students living in Driscoll, Leahy, Redington and Gavign Halls must participate in one of the three University meal plans. Meal plan participation is optional for upperclass residents of Mulberry Plaza, Madison Square and Linden Plaza and the University houses and for commuters and students living in private housing. Discounted meal tickets are available for guests and students wishing additional flexibility.

Off-Campus and Commuter Students
The University makes special efforts to ensure that commuting students and those who live off campus have access to its academic and co-curricular programs and services. For commuters, the On-Campus Life Association, or COLA, is a student-run organization in which students can become involved in various activities and programs. For additional information about COLA, call (570) 941-6335. For off-campus students, the Student Affairs office provides resources and programming. For more information, contact Student Affairs at (570) 941-7680.

The Student Government also has commuter and off-campus representatives in its student senate. These students represent commuter and off-campus issues and concerns to this governing body. For information about the Student Government, call (570) 941-7462.

Career Services
Career Services helps students focus on career decisions that are consistent with their unique talents, aspirations, and vision for living. Professional counselors can help students discover links between their personal traits and career options through individual counseling, workshops, and many other electronic and hard-copy resources available at the Office of Career Services.

Students who are looking for related work experience while they are attending the University can benefit from a variety of services provided by the office. All students can receive training in resume writing and cover letter writing as well as interview and job search techniques. They are also able to participate in employer on-campus recruiting visits, employment fairs, and the annual Law/Graduate School Fair. Students and alumni can access a wide range of employment opportunities through the office’s online job posting system.

The Office of Career Services is located in Cieszk Hall and is open from 8:30 a.m. to 4:30 p.m. Monday through Friday. Evening hours are arranged on a semester basis. The phone number is (570) 941-7640. Additional information is available online at www.scranton.edu/careers.

Multicultural Affairs
The University has increasingly been a learning community that mirrors the diversity of the Kingdom of God. Multicultural Affairs supports this mission by building and maintaining a campus environment that is inclusive, pluralistic and diverse. This office provides a seamless link within the Division of Student Affairs in addressing these issues. Students and faculty work together to develop a strategic plan and annual goals to help build a more diverse community that will enhance the value of this community for each of its members. Each individual in this community is encouraged to embrace the richness of life associated with other cultures and people of diverse backgrounds. The Director of Multicultural Affairs assists with the establishment of policies and programs addressing diversity, multiculturalism, harassment and injustice toward students of color. Multicultural Affairs collaborates with other academic services and learning resources that provide guidance and advisement to students of color. Leadership, support and advice are given to individual students and multicultural student organizations. Additional support includes providing guidance and advisement to individual students of color and the general
student population for oversight and planning of programs and training sessions that promote goals and values of a diverse and inclusive campus for students and the entire University community.

Jane Kopas Women’s Center
The Jane Kopas Women’s Center fosters a campus community in which women and men can live in a climate of mutual respect, understanding and equality, and where women are encouraged to reach their fullest potential. It provides a safe, comfortable and educational environment in which students, faculty, staff and members of the community can learn about the current and historical role of women in society and where they can explore issues of gender equality, diversity and social justice.

Both women and men are encouraged to attend the Center’s co-curricular programs on gender and diversity issues and to use its resource center for courses, special projects or personal enrichment. Books, periodicals, videos, tapes, Internet access, and informational pamphlets are available for use, and the Center is also a place to learn about internship possibilities and conferences.

The Jane Kopas Women’s Center’s central location on the ground level of Fitch Hall and its comfortable atmosphere make it a place to get away from the daily stress of college life. There is always a need for work-study students and volunteers to serve the campus community. Interested students can call (570) 941-6194 or visit the Center from 10:00 a.m. to 6:00 p.m. Monday through Friday.

Judicial Affairs and Assessment
While participating in the life of the University community, it is hoped that students will learn and develop within the Jesuit educational tradition. Consistent with this tradition, the University community expects students to lead examined lives supportive of the common good. Thus, it is important for students to comply with University behavioral expectations designed to promote respect for others and observance of the tenets of the University Community Standards Code.

In coordinating the review of student misconduct cases, the Office of Judicial Affairs helps students understand their behavioral responsibilities as members of the University community and ensures that the rights of accusers and accused students are upheld within a fair-minded judicial system.

The staff associated with the Office of Judicial Affairs also assists the Division of Student Affairs in the creation, implementation, and evaluation of a comprehensive assessment program. This assessment program addresses issues of student growth and development, departmental functioning and operation, and student perceptions of divisional effectiveness.

Counseling Center
The Counseling Center provides a safe, comfortable, caring and confidential place for students. Sometimes students have personal concerns they may wish to discuss with one of our staff. Issues may be related to relationships, transition, coping, development, school, self-concept or family dynamics. Other concerns may be alcohol and other drug use, abuse, anxiety and/or depression, etc.

The Counseling Center is staffed by licensed psychologists, counselors and a social worker who are available to help students make the most they can out of their years at the University. Finding ways to identify and cope with these concerns can make a difference in the life of a college student.

The Counseling Center, located on the second floor of McGurran Hall, is open from 8:30 a.m. to 4:30 p.m. Monday through Friday. Evening sessions may be available by appointment. After-hours emergency crisis consultation with a clinician is available on a 24-hour basis from September through May while classes are in session by contacting Public Safety at (570) 941-7777. For appointments, students may call (570) 941-7620 or stop by the Counseling Center. Our Web address is www.scranton.edu/counseling.

Student Health Services
Good health is an essential part of 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 in the Wellness Center and is open from 8:30 a.m. until 6:00 p.m. Monday through Thursday and 8:30 a.m. until 4:30 p.m. on Friday. All services are confidential and include unlimited visits for nursing assessment, treatment and/or referral for further evaluation and care. Physician and Nurse Practitioner appointments are available daily after initial evaluation by a nurse. Cooperative relationships with community health care providers such as laboratories, pharmacies, hospitals and medical specialists complement the care offered on campus.

University fees cover all medical services on campus. Student Health Services does not third party billing. However, 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. Information about an optional alternative insurance plan for students who do not have insurance coverage through another plan is available through Student Health Services.

Center for Health Education and Wellness
The Center for Health Education and Wellness (CHEW) at The University of Scranton provides health information and programs to support the academic, social and spiritual success of students now and well into the future. The CHEW crew of health education professionals, student workers and peer educators produce dynamic workshops, host community awareness events and provide individualized guidance to help students make healthy choices. CHEW staff and students also work to connect students to other campus resources and community services.

The Center’s specially trained peer educators produce campus health projects and lead active and informative sessions on alcohol and other drugs, sexual health, sexual assault and other vital health topics. Residence halls, classes, outdoor events and trainings are all frequent stops for CHEW’s Coalition of Peer Educators (COPE). COPE includes the following programs: ADAPT (Alcohol and Drug Awareness Peer Team), PEACE (Peer Education on AIDS and other Sexually Transmitted Infections in a College Environment) and SART (Sexual Assault Response Team). In addition to programming efforts, these student leaders in service help produce and promote such campus-wide activities as The Great American Smoke Out, Safe Spring, Break and The Annual Prevention Breakfast. In addition, they help organize campus guest speakers and conduct health outreach efforts via the Center’s traveling Health Hut. Peer educators learn valuable leadership and wellness promotion skills, earn service-learning credit and often go on to successful careers in such fields as health, education, and counseling and human services.

The student source for Web, print and in-person resources on personal and community wellness, CHEW is located in the Roche Wellness Center at the corner of Mulberry Street and North Webster Avenue. Office hours are 8:30 a.m. to 4:30 p.m., Monday through Friday, and evenings by appointment. For more information or to become involved, stop by the Center, call (570) 941-4253, or visit “CHEW at the U” at www.scranton.edu/chew.

Outside the Classroom
Student Activities and Orientation
The Office of Student Activities and Orientation complements the University’s overall educational experience by acting as a learning lab. Ideas and concepts discussed in class are practiced and mastered through participation in Student Activities programs. Experiential learning opportunities include leadership, orientation and event planning programs. Keeping the care of the whole person and the magis at the forefront, Student Activities and Orientation is a resource that emphasizes a welcoming environment that supports a free flow of ideas that empowers, challenges and supports students in their development towards their potential. It encourages such things as positive and realistic self-appraisal, intellectual development, making appropriate personal choices, clarification of values, the ability to relate meaningfully with others, and the capacity to work independently and interdependently.

The Office of Student Activities and Orientation is located on the second floor of the Gunster Student Center and is open Monday through Friday from 8:30 a.m. to 4:30 p.m. The telephone number is (570) 941-6233.
Orientation
Orientation helps all new freshman and transfer students make their transition to life at the University in the most successful way possible. The program is the link between the admissions process and students’ arrival for their first semester. The emphasis is on scheduling, academic and social integration, and providing a natural connection to the strong sense of community at the University. All students attend one of the four two-day orientation sessions.

Student Government
Student Government is an organization with the task of maintaining and improving all aspects of student life to provide 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.

Clubs and Organizations
The University of Scranton encourages students to participate in activities, clubs, and organizations supported by the Office of Student Affairs. 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. The following are some of the clubs recognized by the University of Scranton.

- Advertising Club
- Amnesty International
- American College of Healthcare Executives
- American Psychological Society Student Caucus (APSSC)
- Asia Club
- Association for Childhood Education
- International
- Association for Computing Machinery
- Biochemistry & Chemistry
- Biology Club
- Business Club
- Circle K
- College Democrats
- College Republicans
- Colleges Against Cancer
- Commuter On-Campus Life Association (COLA)
- Council for Exceptional Children (CEC)
- Counseling and Human Services Association
- Crew Club (Men’s and Women’s)
- Criminal Justice Club
- Debate
- Disc Golf
- Environmentally Concerned Organization
- Exercise Science Club
- Finance Club
- For Interdisciplinary Reclamation of Education
- Habitat for Humanity
- Health and Fitness
- Health Professionals Organization
- Healthcare Administration Association (HADM)
- India Club
- Institute of Electrical and Electronics Engineers (IEEE)
- International Business Club
- International Students Club
- Italian Society
- Jesuit University Students Concerned with Empowerment (JUSTICE)
- Kirchheimer Improv Group
- Liva Arts Company
- Math Club
- Mountain Sports Club
- Neuroscience Club
- Physical Therapy Club
- Pre-Law Club
- Psychology Club
- Public Relations Students Society of America (PRSSA)
- Roller Hockey
- Royal Dance Ensemble
- Royal Historical Society
- Royal Riders Equestrian Team
- Rugby Club, Men’s and Women’s
- SAGE (Scranton Area Garden Exchange)
- SAME (Scranton Advocates for Multicultural Education)
- SAS (Society of Accounting Students)
- Scranton Spirit
- Se Hablo Espanol
- Student Education Club of the University of Scranton (SECU)
- Society for Human Resources Management
- Society of Physics Students
- Spirit of Scranton
- Student Education Club of The University of Scranton
- Student Nurses Association
- Students For Life
- Students in Free Enterprise (SIFE)
- Students Occupational Therapy Association
- Ultimate Frisbee Club
- United Colors Club
- University of Scranton Political Society
- University of Scranton Programming Board (USPB)
- Urban Beats – Hip Hop Dance Team

A complete list of campus clubs and organizations is available on the Web at www.scranton.edu/clubs.

Intercollegiate Athletics
The University is a Division III member of the National Collegiate Athletic Association (NCAA) and Eastern Collegiate Athletic Conference (ECAC). After a long, proud affiliation with the Middle Atlantic States Collegiate Athletics Corporation, The University of Scranton joined the Landmark Conference in 2006. The Conference consists of the following institutions: Catholic University (Washington, D.C.); Drew University (Madison, N.J.); Goucher College (Baltimore, Md.); Juniata College (Huntington, Pa.); Moravian College (Bethlehem, Pa.); Susquehanna University (Selinsgrove, Pa.); and the United States Merchant Marine Academy (King’s Point, N.Y.).

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 www.scranton.edu/athletics.

Men’s
- Basketball
- Baseball
- Cross Country
- Golf
- Ice Hockey
- Lacrosse
- Soccer
- Swimming
- Tennis
- Wrestling

Women’s
- Basketball
- Tennis
- Cross Country
- Field Hockey
- Lacrosse
- Soccer
- Softball
- Swimming
- Tennis
- Volleyball

The University is widely regarded for its tradition of excellence on both the national and regional level. Scranton has won three NCAA Division III 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 Final Four four times, including championship match appearances in 1980 and 1981. The women’s soccer team has played in the NCAA tournament 11 times in its 24-year history, including quarterfinal berths in 2001 and 2003, while six other Royal teams – men’s cross country (1975), men’s golf (1974), field hockey (1997), softball (1982, 1983), women’s volleyball (1999, 2001, 2003, 2005) and women’s lacrosse (2003, 2004) – have competed in NCAA championships.

As a former member of the Middle Atlantic Conferences, Scranton has won 79 league titles. The women’s basketball team leads the way with 17, followed by men’s basketball (16), 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, 50 student-athletes have earned this prestigious honor, including Taryn Melody of the women’s basketball team during the 2005-06 academic year. The women’s basketball program has produced 16 all-Americans, while men’s soccer is next with 10, followed by men’s basketball (8), women’s soccer (7), women’s swimming (2), wrestling (2), baseball (1), field hockey (1), men’s golf (1), men’s cross country (1) and women’s lacrosse (1).

Excellence in all athletic venues has also translated to success in the classroom. In 2005, John Mercuri of the men’s cross country team became the 21st student-athlete in University of Scranton history to garner Academic All-America honors. In addition, 11 Royal student-athletes have earned a prestigious NCAA post-graduate scholarship, including Bridget Lee of the women’s lacrosse.

Recreational Sports

Housed in the Byron Recreational 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 dodgeball, basketball, volleyball, walleyball, flag football, racquetball, tennis, soccer, whirlleball, badminton, softball and ultimate Frisbee. Special one-day events are held on weekends throughout the year and include skiing, snow tubing, golf, table tennis, beach volleyball and hiking.

In addition to structured programs, the Byron Recreational Complex offers many opportunities for individual recreation. Cardiovascular training equipment (treadmills, cross-trainers, steppers, rowers, bikes and other equipment) is located on the second level in the Murray Royals Fitness Center. Aerobics classes are conducted on a weekly schedule and can be attended on a drop-in basis. The recreation complex also houses three multi-purpose courts, four racquetball courts, a six-lane swimming pool, a dance-aerobics room, weight room, saunas, and steam rooms. In addition to indoor facilities, there is an outdoor basketball court, turfed utility field, and sand volleyball court located directly behind the recreation complex. A variety of recreational equipment may be obtained in the recreation office with a valid Royal card.

Addition to indoor facilities, there is a swimming pool, a dance-aerobics room, weight room, saunas, and steam rooms. In addition to indoor facilities, there is an outdoor basketball court, turfed utility field, and sand volleyball court located directly behind the recreation complex. A variety of recreational equipment may be obtained in the recreation office with a valid Royal card.

Student Publications

The University offers a wide choice of journal opportunities:

- The Aquinas is the weekly, award-winning campus newspaper. Positions are available to all full-time undergraduate students.
- Espirit is the award-winning campus literary journal.
- The yearbook, Windhover, is produced annually by students.

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. In the finest liberal arts tradition, participation is open to any and all interested University students (as well as faculty, staff and administrators) with no individual audition requirement or enrollment or membership fee. The programs include an annual World Premiere Composition Series performance, the only series of its kind in the nation, which has received honor and acclaim from artists throughout the world. Currently in its 24th year, 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. Hundred of students participate in the ensembles every year, and they are achieving their performance goals in the musical ensemble of their choice. For more information on any Performance Music offerings, please visit our online at www.scranton.edu/music, or contact the office at music@scranton.edu or (570) 941-7624.

The University of Scranton Performing Arts Series presents concert performances by outstanding and renowned musicians representing a variety of musical genres, and closely coordinates programming with the Bands, Choirs and String Ensembles to offer special masterclasses, workshops and lectures by our visiting artists.

All performances are free of charge and open to the public, and most take place in the magnificently restored concert hall of the Houlihan-McLean Center on campus.

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 long list of musical masters, among them George Arakan; Jeffrey and Lauren Curnow; Wycliffe Gordon; Victor Goines; Frederick Holmann; T. Terry James; Robert Kaplow; Wynion Marsalis; Sam Pilafian; Eric Reed; Joshua Rosenblum; Loren Schoenberg; Robert Starer; Lawrence Wolfe; Marcus Printup; members of the New York, Philadelphia, Boston, Minnesota and Dallas Symphony Orchestras and The Lincoln Center Jazz Orchestra; “Travelin’ Light”; members of the Empire Brass Quintet; and late composer-in-residence Vaclav Nellybel, whose long and productive relationship with the University continues to be honored through close cooperation between the University and the Nellybel Estate with the establishment of The Nellybel Collection.

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 world, Latin, classical, 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 College Television Network gives students the opportunity for hands-on experience in television production. Students take the initiative in producing, directing, writing, shooting and editing television programs to express their creativity. These programs range from comedy, sports and film reviews, to news and public affairs. Programs produced by students appear on the campus cable television system.

Theatre

The tradition of theatre and dramatics in Jesuit colleges goes back 400 years. The University of Scranton has a vital part in that tradition as evidenced by the many theatre professionals who were undergraduates of the University: Walter Bobbie (Broadway actor and Tony Award–winning director), Gene Terruso (director and chairman of Theatre Arts at The University of the Arts, Philadelphia), and the late Jason Miller (Pulitzer Prize–winning playwright/Academy Award nominee).

Today, the University Players produce a main-stage season along with a festival of original one-act plays, and a workshop devoted to new student directors. Over 150 students, from virtually every academic major, participate on and off stage in the productions each year. The theatre program is housed in the McDade Center for Literary and Performing Arts, a state-of-the-art facility complete with a 300-seat thrust main stage, a flexible studio theatre, fully equipped scenery and costume shops and additional theatre support spaces.

The University Players have historically been host to many prominent guest artists. Oscar-winning actress Glenda Jackson conducted an acting workshop in 1984; the late Richard Harris, another Oscar recipient, directed Julius Caesar in 1988; and, also in 1988, Emmy Award–winning designer and University alumnus Dennis Sire created scenic and lighting designs for Aristophanes’ Lysistrata.

Participation in the Players is open to all students, regardless of academic year or major. Interested students should contact the Director of Theatre in the McDade Center, Room 103.

University Ministries

Led by the Holy Spirit, University Ministries at The University of Scranton seeks to engage all members of the community in promoting and living out the Gospel values of Jesus Christ. Inspired by the spirituality of Saint Ignatius of Loyola and strengthened by the sacramental life of the Church, we are committed to using our God-given talents by reaching out with love and respect to all. We
seek to encounter God in our worship and prayer in our faith communities, in our service and outreach, and in our Christian education opportunities.

Worship and Prayer

Sacramental Life

The celebration of the Eucharist is held twice each weekday at St. Ignatius chapel and three times on Sunday at Madonna della Strada chapel. The sacrament of Reconciliation is held daily at St. Ignatius and also by request.

Liturgical Ministers

Students from all classes serve the Scranton faith community as liturgical readers, extraordinary ministers of the Eucharist, and as ministers of hospitality at Sunday liturgies as well as at University-wide events like Palm Sunday and the Advent Mass.

Music Ministry

Students from all classes, both vocalists and instrumentalists, are dedicated to bringing music into the liturgical life of our community. These musicians provide music for each Sunday as well as at larger liturgical celebrations like Baccalaureate Mass.

Building Faith Communities

Residence Hall Ministry

Several members of the University Ministries staff serve as Residence Hall Ministers, providing counsel and support to undergraduates in different residence halls on campus.

Retreats

Many different retreats are offered for our students including Freshman, Search, Senior and JUSTICEEpaz, as well as three- and five-day Ignatian silent. Retreats are offered to students at our beautiful Retreat Center at Chapman Lake, just 20 minutes from campus.

Call and Commitment

This group is offered for students interested in exploring a call to church ministry as a priest, religious or layperson.

Christian Life Communities (CLC)

Christian Life Communities are small faith-based groups of students who agree to meet on a weekly basis to grow in spirituality, community and service. Through prayer, focus activity and reflection, the groups enhance their understanding of Ignatian spirituality and deepen their personal relationship with God.

JUSTICE Club

A student-led group, the JUSTICE Club strives to bring awareness of and advocacy for justice issues in our world. They help to prove that ours is truly “a faith that does justice.”

Service and Outreach

Community Outreach Office

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 and local service. Each element enables the students to express their faith in reflective service while responding to local and national needs.

International Service Program

Our International Service trips provide opportunities for students, faculty and staff to be immersed in cultures and experiences in developing countries of our world. The program revolves around simple living, community, generosity and faith-based reflection.

Christian Education

RCIA

The RCIA program prepares these students interested in becoming Catholic for baptism and/or confirmation, with reception into the Church during second semester.

Spiritual Direction

Those interested in broadening and enhancing their relationship with God through prayer meet with a spiritual director regularly to discuss their prayer life and their ever-changing relationship with God and with Christ in our midst.

Collegiate Conversations

These gatherings are designed to enhance dialogue about theological and spiritual/faith issues of particular interest to students, faculty and staff.

Soup and Substance

Offered during Lent, these gatherings encourage conversations among students, faculty and staff about real-world issues related to Catholic Social Teaching.

Liturgy Schedule

Sunday Mass at Madonna Della Strada Chapel: 11:00 a.m., 7:00 p.m., 9:30 p.m.

Daily Mass at St. Ignatius Chapel: Monday through Friday, 12:05 p.m. and 4:40 p.m.

Sacrament of Reconciliation at St. Ignatius Chapel in the Reconciliation Room: Monday through Friday, 11:30 a.m.

The Campus

The University’s 58-acre campus is located in the heart of Scranton, a community of 80,000 within a greater metropolitan area of 750,000 people. Since 1984, the University has built 25 new buildings and renovated 24 others.

The 426,347-volume 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. Loyola Hall of Science and the Harper-McGuiness Wing of St. Thomas Hall have highly specialized laboratories and equipment for the study of physics, electrical engineering, computing sciences, chemistry, biology and molecular biology. 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.

The John J. Long, S.J., Center and the adjoining William J. Byron, S.J., Recreation Complex house the departments of 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.

Thirteen traditional residence halls, primarily for freshmen, are centered on a terraced quadrangle around the center of the campus. Francis E. Redington Hall, John R. Gavigan Hall and Linden Plaza Apartments provide housing for upperclass students and 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 50 housing options for students, who are guaranteed University housing for four years.

The most recent additions to University housing are Mulberry Plaza and Madison Square. Mulberry Plaza is a complex of four apartment buildings. Each unit contains three- and five-bedroom apartments, and a five-occupant, two-story townhouse unit. Madison Square is a three-building complex offering two-, three- and four-bedroom apartments. All units contain kitchens, combined living and dining areas, one or two bathrooms, and bedrooms.

Performance and rehearsal space for the University Bands and Choirs 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 Eagen Auditorium in the Gunster Memorial Student Center is used for performances, lectures and formal and informal University events.

McGuirk 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, and Nursing. Physical Therapy and Occupational Therapy classrooms and laboratories are in adjacent Leahy Hall.

Brennan Hall is our newest academic building. This 71,000-square-foot facility located in the center of campus 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.

Construction is under way for the largest and most ambitious building project in the 119-year history of The University of Scranton, a $35,000,000 new campus center that will transform the heart of the campus. The roughly 118,000-square-foot, four-story building will be located along Mulberry Street in the rear of the existing Gunster Memorial.
The University at a Glance

Students

The student population, including adult, part-time and graduate students, is approximately 5,500. About 83% of full-time freshmen live on campus.

<table>
<thead>
<tr>
<th>Enrollment</th>
<th>Undergraduate Students</th>
<th>3,999</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Men</td>
<td>1,707 (43%)</td>
</tr>
<tr>
<td></td>
<td>Women</td>
<td>2,292 (57%)</td>
</tr>
<tr>
<td></td>
<td>Graduate Students (full time)</td>
<td>776</td>
</tr>
<tr>
<td></td>
<td>Men</td>
<td>261 (34%)</td>
</tr>
<tr>
<td></td>
<td>Women</td>
<td>515 (66%)</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>3,535</td>
</tr>
</tbody>
</table>

Primary States of Origin (Undergraduates)

| Pennsylvania | 49% |
| New Jersey   | 24% |
| New York     | 21% |
| Other        | 6%  |

Primary States of Origin (Graduate Students)

| Pennsylvania | 51% |
| New Jersey   | 23% |
| New York     | 21% |
| Other        | 5%  |

Degrees Conferred, 2005-06

| Bachelor's Degrees | 953 |
| Master's Degrees   | 275 |
| Doctoral Degrees   | 21  |
| Associate Degrees  | 2   |
| Certificates       | 1   |
| Certificates of Advanced Graduate Study | 8 |

Total: 1,260

Retention/Graduation Rates

| Fall-to-Fall Retention Rate | 88% (National Average: 82%) |
| Five-Year Graduation Rate   | 80% (National Average: 64%) |

Student Life

- More than 2,400 students perform 165,000 hours of community service each year
- Over 75 active clubs and organizations
- 19 Landmark Conference athletic teams
- More than 3,000 student participants in intramural and recreational each year

Academic Programs

Bachelor's Degree Programs.................60
Master's Degree Programs..................23
Minors........................................44
Undergraduate Concentrations/Tracks.....31
Doctor of Physical Therapy................1
Continuing and Professional Education Courses Offered Annually.....325

Faculty

Eighty-six percent of the University's faculty hold doctoral or other terminal degrees in their fields. The student-to-faculty ratio of 12:1 allows for class sizes that average 23 students.

Full-Time Faculty..........................263
Tenured Faculty.........................199 (75%)

Faculty Scholarly Activities 2005-06

| Articles | 126 |
| Book Reviews | 37 |
| Presentations | 261 |
| Editorships | 9 |
| Patents and Patent Applications | 12 |
| Fellowships | 3 |
| Grants | 10 |
| Proceedings | 37 |
| Books Authored or Co-Authored | 18 |

Community Impact

The University of Scranton's annual economic impact on Northeastern Pennsylvania totals $305,794,054, according to a report issued by the University. The report is based on established economic impact studies and formulas, including those used by the Association of Independent Colleges and Universities of Pennsylvania. For the 2005-06 academic year, University of Scranton expenditures were $127,414,189. Economic impact studies used in preparing this report estimate that for every $1 in expenditures, an additional $1.4 worth of economic activity is generated.
Academics

The University’s academic programs for undergraduates are offered through four schools – the College of Arts and Sciences, the Kania School of Management, the Panuska College of Professional Studies, and the College of Graduate and Continuing Education, which offers programs for adult and non-traditional students. The schools share a common General Education program and offer baccalaureate degrees in 60 fields.
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.

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 Doklasthion nikskephon — 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 Alpha Sigma Nu University award for teaching.

Phi Alpha Theta*

International Honor Society in history founded in 1921. Basic requirements: 12 credits in history; grade point average of 3.33 in history and overall ranking in top 35% of class. The Mu Rho chapter was established at the University in 1967.

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.

Pi Mu Epsilon

National Honor Society for mathematics majors in junior or senior year with an overall grade point average of 3.33 and a 3.50 average in mathematics. Biomathematics majors who meet the criteria can be nominated with an unsolicited recommendation from full-time mathematics faculty. The University's chapter was installed in February 1973.

Alpha Mu Gamma

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

Phi Lambda Upsilon

National Honor Society for sociology founded in 1920. Basic requirements: 18 credits in social science; grade point average of 3.0 overall. The University's chapter was founded in 1970.

Pi Epsilon Alpha*

National Honor Society for criminal justice, founded in 1942. The University's Zeta chapter was installed in 1968. Membership 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*

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 works and activities.

Omega Beta Sigma

The Women's Business Honor Society founded at The University of Scranton in 1982. This organization is for students who major or minor in business, have at least sophomore standing, and have a grade point average of 3.25.

* Member of the Association of College Honor Societies.
Upson Pi Epsilon
The first and only existing International Honor Society in the Computing and Information Disciplines, founded in 1967, and endorsed by both the corresponding professional organizations, 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.

Although computing is a relatively young discipline, the computing sciences have had an unparallelled effect on almost every aspect of contemporary life. Indeed it is difficult to predict the ultimate place of the computer in our world. It is the expressed purpose of Upson 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 nearly 300 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, a prestigious organization of nurse leaders, scholars and researchers. Requirements: completion of one half of the curriculum, demonstrated ability in nursing, a grade point average of 3.0 and rank in the upper one-third of the class. The University's Iota Omega chapter was chartered in April 1988.

Kappa Delta Pi
International Honor Society for education established in 1911. The Sigma Chi chapter was installed at The University of Scranton in March 2001. Membership in The University's chapter, Zeta Gamma, was chartered in May 2004 and recognizes education science majors who have achieved an overall grade point average of 3.2.

Academic Support Services

Harry and Jeanette Weinberg Memorial Library
Opened in 1992, the holdings of this 80,000-square-foot, five-story building include 481,542 volumes, 1,579 print periodical subscriptions, 15,630 full-text electronic journals, and 538,685 microform pieces. The Library conducts an extensive information literacy program to orient and instruct students on resources and research techniques. A tour of the building and its services is available online at www.scranton.edu/librarytour. The facility includes the following special features:
- group-study rooms and quiet study areas;
- a 24-hour study room (Pro Deo Room) with computer lab and Java City coffee bar;
- fifth-floor reading room (Scranton Heritage Room) overlooking the campus and community;
- University Archives and Special Collections, which houses University historical records, rare books, faculty publications and other special collections; and
- a Media Resources Collection (first floor) that holds 15,078 non-print items, including videocassettes, records, films and filmstrips.

Databases and Online Catalogs
The library offers 122 databases via the World Wide Web. For a list of databases, go to “Databases by Title” from the library’s home page, or visit http://academic.scranton.edu/department/wml/databases.html. A proxy server gives users remote access to these databases. In addition to the library’s own Online Public Catalog, users can search Jesuit libraries and the Pennsylvania Academic Libraries Consortium Inc. (PALCI), a direct borrowing program. With PALCI members, the library also shares 1,900 full-text books that users can read or borrow online. Some required readings for courses are available through ERES, an electronic reserve reading database over the Internet. Through Access PA, an additional 12,000 full-text books are available online.

Library Technology
There are 83 Internet workstations in the library, including 35 machines available 24 hours a day, seven days a week in the Pro Deo Room. Wireless connection to the Internet is available throughout the building via laptops with cards. Fifteen laptops are available at the circulation desk. In addition to these machines, students may use ResNet ports to plug personal laptops into the network in the first-floor Pro Deo Room and group study rooms. “Ask a Librarian” enables users, via e-mail or a live chat, to consult with a librarian from the Association of Jesuit Colleges and Universities (AJCU) and Tutor.com.

Library Hours
Library hours are posted on campus, on the Internet, and on a recording which can be heard at (570) 941-7525. It is open almost 100 hours per week, with extended hours during exam periods.

For information about the library, its services, and resources, see the Weinberg Memorial Library homepage on the World Wide Web (www.scranton.edu/library) or select the Library from the University’s homepage (www.scranton.edu).

Academic Advising Centers
College of Arts and Sciences
The Academic Advising Center, located in St. Thomas Hall 309, 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 academic year.

* Member of the Association of College Honor Societies.
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.

**Kania School of Management**
The Academic Advising Center, located in the fifth floor of St. Thomas Hall in the Kania School of Management, located on the fifth floor of St. Thomas Hall in the Kania School of Management, offers services to faculty in the area of mentoring programs, enhancement of pedagogy, and the use of technology to support teaching and learning on the campus. A variety of workshops, seminars and one-on-one consultation are available to University faculty.

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 programs and services for students and faculty, visit our Web site at www.scranton.edu/ctle or call (570) 941-4038.

**Panuska College of Professional Studies**
The Academic Advising Center, located on the first floor of McGurrin Hall, serves all students in the Panuska College of Professional Studies. Staff are available during the academic 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 works closely with other campus resources to provide comprehensive advising services.

**Center for Teaching and Learning Excellence**
The mission of the Center for Teaching and Learning Excellence (CTLE), located on the fifth floor of St. Thomas Hall in the Harper-McGuiness Wing, is to provide academic support services for students and opportunities for faculty to enhance teaching and learning. The CTLE offers services to assist students in achieving academic success. The CTLE provides programs and services to help students meet their academic and future professional goals by enhancing their reading, writing and learning skills. Services offered include a reading center, writing center and peer tutoring in all academic courses. Students may also work with the CTLE staff in learning how to use instructional technology to enhance learning. Workshops are offered in the area of time management, learning styles and other skills that students may need.

Students with disabilities who are registered receive academic support services such as extended test-taking time, note taking and other accommodations through the CTLE.

The CTLE also offers opportunities for faculty in the area of mentoring programs, enhancement of pedagogy, and the use of technology to support teaching and learning on the campus. A variety of workshops, seminars and one-on-one consultation are available to University faculty.

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 programs and services for students and faculty, visit our Web site at www.scranton.edu/ctle or call (570) 941-4038.

**Office of the Registrar**
As part of the Academic Affairs Division, the Office of the Registrar supports the educational mission of the University by connecting students to the faculty, curriculum and classroom via the course scheduling and registration processes. The Registrar also documents and validates the product of this dynamic connection in the form of schedules, rosters, grades, degree audits, transcripts and diplomas. The Registrar's office serves students on a daily basis by answering questions, issuing transcripts, certifying enrollment status, and distributing forms and schedules. In addition, students may obtain information about academic policies and procedures, and important dates and deadlines.

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 and the University Information System (UIS) on the World Wide Web. The my.scranton.edu portal also provides secure links to academic records, registration options, student class schedules, address information, tuition and fees, accounts and financial-aid information. Mid-term and final grades are also available in UIS through my.scranton.edu.

Located in St. Thomas Hall 301, the Office of the Registrar is open Monday, Tuesday, Wednesday and Friday, 8:30 a.m. to 4:30 p.m.; Thursday, 10:00 a.m. to 4:30 p.m. For more information, please call (570) 941-7721 or e-mail registrar@scranton.edu. Additional information and resources (including the academic calendar, course schedules, registration information and student grade point average calculator) are available online at www.scranton.edu/registrar.

**Academic Policies and Regulations**

**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 www.scranton.edu/student_handbook.

**General Regulations**
Ordinarily, all entering students – both freshmen and transfer students – are held to the requirements 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 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 body. 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 semester 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 2007-08 academic year are thereafter governed by the curricular policies stated in this catalog. Requirements for majors are those in effect when a major is formally declared and approved. First-year students admitted in 2007-08 will follow the general education requirements of this catalog. A degree represents the successful completion of the entire undergraduate curriculum, including general education requirements, cognates, basic skills courses and electives as well as major requirements. Students graduating with multiple majors receive a single degree.

In order to earn a bachelor’s degree from The University of Scranton students must:

- complete all the courses 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.
• remove all failures in required courses. (See "Graduation Procedures and Cancellations" for additional information.) In cases where students do not maintain a 2.00 grade point average in required courses, their respective dean may take one of the following actions:
  • place the student in a good-attainment semester for students determined to raise the grade point average and remain in the major;
  • place the student in an exploratory semester for students wanting to explore possible new majors; or
  • grant 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.

Number of Hours in a Semester and Special Terms

The University of Scranton constructs its academic calendar in compliance with the minimum standards for class meeting time established by the Commonwealth of Pennsylvania Department of Education. The current Commonwealth of Pennsylvania Department of Education guidelines establish that a credit hour shall consist of 14 hours of classroom instruction per semester or term, exclusive of registration, final examinations and holidays. For alternative instructional and delivery modes such as laboratory instruction, independent study, readers, thesis, clinical and practicum experience, telecommunication and Web instruction, and special off-campus initiatives, a credit hour shall represent an instructional unit equivalent to a minimum of 14 hours of classroom instruction, exclusive of registration, final examinations and holidays. A semester shall consist of 14 weeks of instruction exclusive of registration, final examinations and holidays. A special or compressed term shall meet a number of hours per credit equivalent to a semester but in a compressed or extended timeframe, as determined by the Registrar in consultation with the Provost.

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 e-mail 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, visit the Information Resources Web site at http://matrix.scranton.edu/informationresources/ipolicies.asp. If you encounter problems accessing your e-mail, contact the Help Desk at (570) 941-4357.

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 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 – 09 General education courses
- 10 – 39 Courses that may apply either to major or general education requirements
- 40 – 79 Courses available for major (also minor and required cognate) credit
- 80 – 81 Practicum, Internship or Co-op courses
- 82 – 83 Independent study
- 84 Special topics
- 85 – 89 Honors courses
- 90 – 91 Seminars
- 92 Service Learning
- 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 Program are indicated by a (J) following the course number; those in the Honors Program are indicated by an (H) following the course number.

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, need to 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 University’s academic calendar.

Withdrawal from a Course

After the end of the period to drop a course without having it reflected on the transcript, students may still withdraw from a course until the published deadline and receive a W grade on their transcript. 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, need to 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 through the Registrar’s Office, the academic advising centers, academic department chairpersons’ offices, and the College of Graduate and Continuing Education. The completed forms must be submitted to the Registrar’s Office or, in the case of adult undergraduate students, to the College of Graduate and Continuing Education 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 short session. Failure to withdraw officially from a course will result in a 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 listing. 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 usually 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 must be promulgated in writing in the course syllabi.

Final Examination Conflicts

When a student has three or more examinations scheduled on the same day, according to the examination schedule issued by the Registrar’s Office, the student can decide whether to take all three examinations on the same day or to have one rescheduled. If the student wishes to have one of the three examinations rescheduled, the examination with the lowest priority will be rescheduled. Order of priority: (1) major course; (2) cognate course; (3) elective course.

Where a conflict exists between two courses of the same kind (e.g., two cognates or two electives), the more senior professor – in terms of years of service at The University of Scranton – will have first priority.

If a student wishes to reschedule a conflict examination, he/she must advise the 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 fall and spring semester, as well as interim terms, according to the grading scheme defined in this section. Final grades are submitted by faculty through the authorized grading system designated by the Registrar’s Office and are recorded on the permanent transcript of academic record for each student. Grades are available to each student through their confidential account in the University Information System (UIS), accessed through the my.scranton.edu portal, after the grade submission deadline published in the academic calendar.

In addition, freshmen receive mid-semester grades at the mid-point of each fall and spring semester to provide feedback about their performance in their current courses to that point in time. Sophomores, juniors, and seniors receive mid-semester grades only if their performance is deficient (grade of C- or less) to that point in time. 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 performance and are not recorded on students’ academic transcripts.

Primary Grades

A, A-: Excellent (outstanding and/or original work)
B+, B-, B: Good
C+, C: Satisfactory
C-, D+: Passing but well below average
D: Passing but well below average
F (Fail): Failure (below minimum acceptable standards)

Additional Grading Codes

W: Withdrawal officially; deadline is one month before the last day of classes for the semester
I: Incomplete – notes a course not completed due to illness or other serious reason; to remove this grade students must satisfy all course requirements by mid-point of the following semester or the grade will be converted to an F
IP: In Progress – must be removed by the last day of the following semester (normally for honors and thesis courses only)
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 constitute credit 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

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 courses 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 reported on the student’s transcript even though the credits of the earlier attempts do not count in the cumulative grade point average (e.g., 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
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 3.0; B- at 2.67; C+ at 2.33; C at 2.0; C- at 1.67; D+ at 1.33; D at 1.0. 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 number of semester credit hours. For example, 15 GPA credit hours, all at A grade, would earn 30 Quality Points or a 2.0 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

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:
Probation and Dismissal

One semester of probation is granted to students whose cumulative GPA falls below 2.0, or who otherwise are in danger of dismissal. A second semester of probation is not automatic; students who do not remove themselves from probation after one semester are subject to dismissal, unless excepted by the appropriate dean. 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 summer school or intern session at The University of Scranton.

Students on academic probation are allowed to take no more than 14 credits (undergraduates in the College of Graduate and Continuing Education, no more than 12 credits) during the fall or spring semesters without explicit written approval of the appropriate dean. Students on academic probation are ineligible for participation in extracurricular 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. Normally 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. Seniors expecting to complete degree requirements in time for spring graduation must make formal application through the Registrar's Office or the College of Graduate and Continuing Education by February 15. Students who are expecting to complete degree requirements for summer, fall or intersession graduation must make formal application a minimum of four weeks prior to the end of the appropriate term.

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 Commencement in the spring. They must present to their dean a plan to complete their remaining credits at The University of Scranton during the summer or fall sessions and receive the dean’s approval. Students may not participate in a second commencement upon completion of all degree requirements.

Graduation Honors

To be eligible for graduation and for Latin honors at Commencement, a baccalaureate degree student must have completed a mini-
mum of 63 credit hours of course work at The University of Scranton. Note: Latin honors are based upon a student's final 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 from the Registrar's Office, academic advising centers, and academic department chairperson offices, and the College of Graduate and Continuing Education. Graduation requirements in effect for students at the time they approved leave begins will remain in effect when they return from their leave under the following conditions:

- They are in good academic and disciplinary standing at The University when their leave begins.
- They may not take courses at another institution without first securing written approval from their dean.
- Their leave is limited to one semester but may be renewed for one additional semester with the written permission of their dean.
- They place their addresses and phone numbers on file in the Registrar’s Office (or, for CGCE students, the College of Graduate and Continuing Education) and promptly report any address/phone number changes to that office.
- They understand 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.

Students who interrupt 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. Students on an approved leave of absence must apply for readmission but retain the same requirements they had when they matriculated if their leaves do 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 comply 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 Registrar's Office, the academic advising centers, academic department chairpersons' offices, or the College of Graduate and Continuing Education. 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 Registrar's Office or, in the case of CGCE students, to the College of Graduate and Continuing Education.

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 to The University and, if accepted, will need to satisfy the catalog requirements in effect at the time of readmission. Students on an approved leave of absence must apply for readmission but retain the same requirements they had when they matriculated if their leaves do 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. A 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, to review the student's eligibility status for readmission to the University, and/or review a transcript and the student's file in the Registrar's Office or the College of Graduate and Continuing Education. The readmitting dean may confer with Student Affairs 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, when there are 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 decision on readmission.

The dean will render a decision and inform the student and Registrar's Office. If the dean renders a decision to readmit the student, that official transcript will then be forwarded to the Registrar's Office or the College of Graduate and Continuing Education for analysis/determination of transfer credit acceptable toward the intended program of study. Pre-requisition 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 switches programs.

**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; they will, however, be excluded from the GPA and earned hours 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 hours, 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 students in good academic and disciplinary standing at The University of Scranton can transfer in a maximum of 10% of the total credits in their program. Transfer students from another institution will be limited to a maximum of 10% of the total credits remaining in their program from the point of University of Scranton matriculation. All students must complete at least 63 credits
at The University of Scranton, including the last 30 credits.

University of Scranton 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. Grades below C (2.0 in a 4.0 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. Transfer credit will be awarded only upon receipt of an official transcript from the transfer institution.

Students must secure the permission of their dean to take courses at another institution. Students may not ordinarily take a course at another institution if they have failed the same course at The University of Scranton; however, exceptions to this policy can be made by the student’s dean. Students may get credit for a course only once, regardless of where completed, toward degree requirements, with the exception of some special topics courses if approved.

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 Blackboard to support or to teach the entire course. Blackboard is the standard university Web-courseware tool that enables an instructor to supplement a course with online materials and activities, or to deliver a course solely online. Blackboard contains modules for announcements, course documents, online tests/quizzes, discussion board, chat and assignments.

At The University of Scranton, Blackboard is also 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 Blackboard. 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 Blackboard, the computer equipment you need, and what you need to know before taking an online course, visit The University’s Blackboard page located at www.scranton.edu/bb.

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 or in the College of Graduate and Continuing Education. FERPA does authorize the University to disclose information without consent to school officials with legitimate educational interests who need to review an education record in order to fulfill their professional responsibilities. The following people or agencies are also allowed access to records without consent: persons or companies with whom The University has contracted (such as attorneys, auditors or collection agents); 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.

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
- Email 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 any or all the above information may complete and submit a request to the Office of Student Affairs, Registrar’s Office or the College of Graduate and Continuing Education (graduate and adult undergraduate students). Request forms are available from any of the preceding offices.

A directory of names, addresses and telephone numbers of students 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, Room 301, St. Thomas 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.

Degree Programs

The University offers the following degree programs for the undergraduate student. Consult departmental listings for details.

Majors

Bachelor of Arts
- Classical Languages
- Communication
- English
- French
- German
- History
- International Language–Business
- Philosophy
- Spanish
- Theatre
- Theology/Religious Studies

Bachelor of Science
- Accounting
- Accounting Information Systems
- Biochemistry
- Biochemistry, Cell and Molecular Biology
- Biology
- Biomathematics
- Biophysics
- Business Administration
- Chemistry
- Chemistry-Business
- Chemistry-Computers
- Community Health Education
- Computer Engineering
- Computer Information Systems
- Computer Science
- Counseling and Human Services
- Criminal Justice
- Early Childhood Education/Special Education
- Economics
- Electrical Engineering
- Electronic Commerce
- Electronics-Business
Elementary Education/Early Childhood Education
Elementary Education/Special Education
Environmental Science
Exercise Science
Finance
Forensic Chemistry
Gerontology
Health Administration
Human Resources Studies
International Business
International Studies
Liberal Studies*
Management
Marketing
Mathematics
Media and Information Technology
Medical Technology
Neuroscience
Nursing
Occupational Therapy†
Operations Management
Physics
Political Science
Psychology
Secondary Education
Sociology
Associate in Arts*
Associate in Science*
Business
Computer Engineering
Computer Information Systems
Criminal Justice
Electrical Engineering
Gerontology
Health Administration
Human Services
Political Science
Sociology
Minors

Minors, which require a minimum of 15 hours, are currently available in the following fields. Courses counted toward a minor may not be counted toward the first 15 credits of a minor. However, courses counted toward a cognate or general education courses may be used to fulfill minor requirements.
Accounting
Accounting Information Systems
Art History
Biochemistry
Biology
Business
Chemistry
Coaching
Communication
Computer Information Systems
Computer Science
Counseling and Human Services
Criminal Justice
Economics
Electronic Commerce
English
Finance
Foreign Language
Gerontology
Health Administration
History
Human Resources Studies
International Studies
Leadership
Management
Mathematics
Music History
Operations Management
Philosophy
Physics
Political Science
Psychology
Sociology
Theatre
Theology/Religious Studies
Writing
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.
Catholic Studies
Environmental Studies
Forensic Health
Human Development
Judaic Studies
Latin American Studies
Peace and Justice Studies
Women's Studies

Special Programs

Combined Baccalaureate/Master's Degree

Undergraduate students of the University with outstanding undergraduate records may be eligible to be accepted and dually enrolled in a master's degree program prior to graduation. A student who has achieved an overall grade point average of 3.5 after 64 semester hours, 3.4 after 80 semester hours, 3.3 after 96 semester hours, or 3.2 after 112 semester hours (with at least 32 graded hours at the University) may apply for early admission to a master's degree program through the Combined Baccalaureate/Master's Degree Program. Master's degree programs that accept Combined Baccalaureate/Master's Degree students and details of those programs are found in the section on the College of Graduate and Continuing Education.

Doctoral Program

The University offers a Doctor of Physical Therapy. This online degree program is offered to all qualified, master's-educated physical therapists. Further information 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 field of concentration in addition to their first major. Students must secure written permission from the appropriate departmental chairs. Students pursuing a second major are required to complete all major and required cognate courses and any general education courses that are explicitly required as part of the second major. 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.

Faculty/Student Research Program

The Faculty/Student Research Program (FSRP) gives students an opportunity to be involved in faculty research. Students in all fields can participate. They engage in a variety of activities ranging from relatively routine tasks to more sophisticated research.

There is no cost 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.

To participate in the program, students must identify a faculty sponsor with whom they want to work. This can be done either 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.

For further information about this program, contact the Office of Research Services, St. Thomas Hall 467, (570) 941-6301.

Fellowship Programs

The Office of Fellowship Programs, located in St. Thomas 312, 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. The University Director of Fellowship Programs advises students with outstanding academic records in the identification of appropriate fellowships and scholarships. Members of the Matteo Ricci Society, including the directors of the Undergraduate Honors Program, the Special Jesuit Liberal Arts Program, and the Business Leadership Program, as well as the faculty advisors for the Truman, Goldwater, Fulbright, and National Science Foundation, provide guidance and support to the Fellowships Office.

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
In many cases, adjusted financial aid packages working with the individual student to iden
tify and provide comprehensive pre-
placement credits. The presumption is that nor-
mal academic progress is being made. Typi-
cal academic credit or a grade, they do receive tran-
scripts. The University’s commitment to intern-
ships as an integral part of the educational
The University works closely with institu-
tions around the world and is committed to working with the individual student to iden-
tify 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 accultur-
aturation of international students and scholars into the University community; 
ensures compliance with immigration regula-
tions 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 
aademic year such as International Education Week and International Women's Week. Fac-
ulty and student discussion groups that focus on pressing global issues and events are held 
in the IPS International Center. Additionally, IPS hosts weekly language and culture ses-
dioned to give students and faculty the opportunity to develop new linguistic skills or hone the language they have. IPS also spon-
sors a Family Friendship Program that con-
nects international students with families in the local community. Through the Global
Ambassador Program, American students who have studied abroad and international stu-
dents visit classrooms in local schools and the University to discuss aspects of their experi-
ences and culture.

Internship Programs
The University's commitment to intern-
ships as an integral part of the educational

Credit-bearing internships are co-supervised 
by faculty member and an on-site supervisor.
Non-credit-bearing internships are also available. They are less structured and do not 
necessarily relate to specific course work. Stu-
dents 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 bacca laureate degrees from regionally accredited 
institutions, who wish to earn second 

service and academic study. Students learn 
and develop by participating in thoughtfully 
organized service that is conducted in and 
meets the needs of the community. Service-

Learning is integrated into and enhances stu-
dents' academic curriculum by providing 

ment for graduation.

Several courses in the College of Arts and
Sciences also include a service-learning 
requirement.

Special Sessions
The University of Scranton annually offers 
the Panuska College of Professional Studies,
in keeping with the mission of this University, 
is committed to a program of service-learning, 
which provides a link between community service and academic study. Students learn 
and develop by participating in thoughtfully organized service that is conducted in and meets the needs of the community. Service-learning is integrated into and enhances students’ academic curriculum by providing structured time for students to reflect on the service experience. The service experience is an effective strategy for achieving enrichment and introducing the student to the academic, social and civic needs of diverse groups of people. Through this program, students in the Panuska College of Professional Studies complete service-learning experiences as a require-
ment for graduation.

Several courses in the College of Arts and
Sciences also include a service-learning 
requirement.

Special Sessions
The University of Scranton annually offers 
Intersession in January and two summer ses-
sions to allow students to accelerate their 
degree programs or to make up courses that 
may not have been completed during the reg-
ular semesters.

Student/Faculty Teaching Mentorship Program
The Student/Faculty Teaching Mentorship Program offers advanced students the oppor-
tunity 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 aca-
demic credit or a grade, they do receive tran-
script recognition. The program is open to all undergraduate and graduate students in good academic standing.

For more information about the program, please contact the Center for Teaching and Learning Excellence, 5th Floor, Harper-McGinnis Wing, St. Thomas Hall, (570) 941-4038.

Three-Year Bachelor’s Degree
The University of Scranton’s curriculum and academic calendar allow qualified stu-
dents 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 market-
place or begin graduate and professional stud-
ies a year earlier. While Advanced Placement credits are very useful for this, a student who does not bring course from high school may 
complete the degree program in most 

majors within three years through the use of January intersession courses and/or summer-
school sessions. The presumption is that nor-
mal academic progress is being made. Typi-
cally, two summer schools (12 credits each) 
and two or three January intersessions will 
suffice. Especially qualified students may be 
allowed to complete the three-year program; the Director of Admis-
ions should be consulted with respect to this.

Details on the special Scranton Preparatory/ 
University Seven Year (4-3) High School-
College Degree Program are available from 
the Dean of Studies at Scranton Preparatory.
Programs of Excellence

Special Jesuit Liberal Arts Program (SJLA)

Rev. Ronald McKinney, S.J., Ph.D., Director

Available by invitation to incoming freshmen, the Special Jesuit Liberal Arts 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 the following skills that University graduates have found particularly useful in law, medicine, business and graduate school:

1. An understanding of key achievements in the literature, history, philosophy, theology and science of the Western classical and Christian heritage;
2. An ability to apply logical, systematic, and critical reflection to any given intellectual problem;
3. An understanding of and sensitivity toward the contemporary problems of our day;
4. An outstanding ability to communicate clearly and persuasively one’s ideas through both the spoken and written word (what Jesuits have historically referred to as eloquentia perfecta).

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 Rev. Ronald H. McKinney, S.J.

SJLA students are eligible to apply for the Christopher Jason Perfilio Memorial Scholarships, awarded each year since 1995.

Course Descriptions

PHIL 120J  3 cr.
Introduction to Philosophy
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, which grapple with the central questions that have arisen in the history of philosophy.

PHIL 210J  3 cr.
Ethics
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 311J  3 cr.
Metaphysics
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 217J  3 cr.
The Trivium
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 322J  3 cr.
Philosophy of Conscience
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, eras, imagination and education in some of the works of Plato, Kant and Marx.

PHIL 412J  3 cr.
(PD) Art and Metaphysics
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  3 cr.
The End of Philosophy
The title of this SJLA capstone course refers to its three objectives. These are: (1) to complete and unify SJLA coursework in philosophy, (2) to clarify philosophy’s purpose or goal, and (3) to interpret contemporary anxiety about the end of the philosophical tradition.

PHIL 419J  3 cr.
(P) Philosophy East and West
This course brings non-Western philosophy and philosophers into a dialogue with Western philosophy and philosophers on major philosophical topics.

T/RS 121J  3 cr.
(P) Theology I: Introduction to the Bible
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 122J  3 cr.
(P) Theology II: Introduction to Christian Theology
(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.

TOTAL: 130-142 CREDITS (depending on major)
Electives and Exemptions
SJLA’s five or six elective (beyond the two-semester language requirement) credits are intended to be used toward courses in math, computer literacy, and the natural and social sciences. There are always exemptions made to ensure that everyone takes at least 130 credits but no more than a credit-heavy major requires. Special exemptions may also be possible for those participating in foreign study; in Honors, or in a difficult double major or minor.

Honors Program
Ellen M. Casey, Ph.D., Director

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 major intensively engage students with texts on an individually directed basis. The junior seminar provides opportunities for students to lead and participate in discussions of books 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 two seminars; they must also complete a year-long, 6-credit project.

Honors Program Schedule

<table>
<thead>
<tr>
<th>Second Year</th>
<th>Third Year</th>
<th>Fourth Year</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Fall</strong></td>
<td><strong>Fall</strong></td>
<td><strong>Fall</strong></td>
</tr>
<tr>
<td>Full: Application</td>
<td>1 or 2 tutorials</td>
<td>Full: Honors Project, HONR 489H: Senior Honors Seminar</td>
</tr>
<tr>
<td>Spring: Honors Course</td>
<td>1 or 2 tutorials, HONR 387H: Junior Honors Seminar</td>
<td>Spring: Honors Project; Defense of Project</td>
</tr>
</tbody>
</table>

Honors courses count toward general education requirements. Honors tutorials count toward major, minor, cognate or general education requirements. Students may take up to five tutorials. Those who participate in all three programs of excellence (Honors, SJLA, 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 charge 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 in their third and fourth years 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 is based on the applicant’s high school and college records, SAT scores, application, recommendations, and interviews. For further information contact Dr. Ellen Casey, Director of the Honors Program.

Course Descriptions
No Honors Program courses may be taken on a Pass/Fail basis.

T/RS 284H (PW) Christian Ethics and Public Health
This course explores the need for a functioning public health apparatus and the ethical implications of the presence/absence of such a system. Christian social ethics, especially the concept of the “Common Good,” provides the framework of the ethical analysis.

HUM 286H
(C,W) Victorian Studies
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.

T/RS 284H (E,W) Science of the Day
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.

HONR 387H Junior Honors Seminar
Student-led discussions of contemporary non-fictional works chosen for their variety and their importance.

HONR 489H Senior Honors Seminar
An independent project of academic or professional nature culminating in an oral defense before a board of three faculty members.

DEPT 385H-389H Honors Tutorial
An exploration of a topic on an individually directed basis.

DEPT 487H-489H Honors Project
An independent project of academic or professional nature culminating in an oral defense before a board of three faculty members.

Business Leadership Program
Robert L. McKeege, Ph.D., Director

Leadership, the process of persuasion or example by which the members of a group are persuaded to pursue the group’s objectives, is the focus of many new programs in education. The Business Leadership Program in the University’s Kania School of Management provides selected students with an opportunity to perfect their talents for business leadership. The program includes special sections of key business courses taught from the leadership perspective, leadership seminars, a mentor/internship program, and an independent leadership project.

The key courses are taught with a special emphasis on business leadership by faculty chosen for their exceptional teaching and their interest in the leadership concept. The leadership seminars will help the students assess and perfect their talents for leadership and will put them into contact with many business leaders. Noteworthy among the opportunities are the mentorships (where the students are placed with business leaders who serve as mentors) and the projects developed and executed by the students to demonstrate their leadership skills.

This highly selective program accepts 15 sophomores each spring to begin the two-year curriculum the following fall. Applicants are selected on the basis of the following criteria:

- Leadership experience and/or potential; drawing from the student’s record in high school, college, work history, clubs and activities.
- Student’s self-assessment and motivation in applying how and why this program relates to the student’s long-term goals.
- Interests and hobbies.
- Recommendations of teachers, others.
- 3.3 grade-point average (ordinarily); a minimum of a 3.5 grade-point average will be needed for graduation with honors in the program.

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 Program.
BLDR 351 3 cr.
Principles of Management
This course covers the key aspects of the management process for decision-making. The focus is on the organizational setting in which business leadership is exercised.

BLDR 355 3 cr.
Business Ethics
The individual and social ethics of the major areas of decision-making in business from a leadership perspective.

BLDR 385 1 cr.
Self-Assessment Business Leadership Seminar #1
Focus is on identifying the characteristics of leadership, self-assessment of personal strengths and weaknesses, and preparation of plan for self-development.

BLDR 386 1 cr.
Empowerment Business Leadership Seminar #2
Focus is on identifying the tasks of the leader and "enabling or empowering" people to achieve the organization's goals.

BLDR 455 3 cr.
Policy and Planning
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 3 cr.
Management by Subjectives: Leadership in Literature
This final course approaches the question of leadership from a humanistic perspective. It considers models of literature as they are presented in well-established pieces of literature, including poems, plays and novels, from a range of historical periods. Emphasis is on the personal relationships between leaders and those they lead, and on fundamental ethical questions relating to leadership.

BLDR 485 1 cr.
Mentorship Business Leadership Seminar #3
Student is placed in an organizational setting as a leadership intern to study the leadership of the organization.

BLDR 486 1 cr.
Senior Project Business Leadership Seminar #4
Student proposes, develops and executes a project evidencing a high degree of leadership skills and activity.

Pre-Law Program
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 of the Class of 1999 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 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 Chicago, Georgetown, Penn, American University, Boston College, Catholic University, Dickinson, Fordham, Notre Dame, Pittsburgh, Rutgers, Seton Hall, Temple, Villanova and Widener.

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 either 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 to 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 while an undergraduate.

The skills noted above can be acquired by students majoring or minoring in any discipline that involves intensive reading and extensive writing such as, for example, English, history or political science. At the same time, students who have majored in other areas, including philosophy, 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 comes from taking challenging courses from demanding professors.

In addition to these skills and values, the ABA has identified several more specific areas of knowledge that pre-law students should acquire as undergraduates. The University's Curriculum 2000 provides a framework whereby all can be acquired through the General Education requirements applicable to all majors.

- a broad understanding of American history (HIST 110-111)
- a fundamental understanding of political thought and the American political system (PS 130-131)
- a basic understanding of ethical theory (PHIL 210)
- a grounding in economics, especially microeconomic theory (ECON 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)

In addition to the courses listed above, which satisfy general education requirements, certain departments offer courses that can be of particular value to pre-law students and which, depending upon their major, can be taken as electives within either the major or cognate. Such courses include HIST 337 (British Constitutional and Legal History), PS 311-312 (American Constitutional Law), and WRTG 212 (Writing for the Law).

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.

Pre-Law Advisory Council
A pre-law advisory council headed by Dr. Frank X.J. Homer, Director of Law School Placement, provides continuing advice on course selection, career planning and the law school application process. He is assisted by Ms. Constance E. McDonnell, Director of Career Services, and Dr. Robert E. Hueston, moderator of the student Pre-Law Society, along with faculty members from the departments of Criminal Justice, English, History, Philosophy and Political Science as well as faculty representatives from both the Panuska College of Professional Studies and the Kania School of Management.

Law School Admission Test
Along with a student’s undergraduate academic record, the LSAT score is a critical factor in the law-school-admission process. Ordinarily, pre-law students take the LSAT at the end of the junior year or early in the senior year. As a means of assisting University students to score up to their fullest potential on the LSAT, on-campus LSAT workshops are offered at least twice each year. These provide
University students with an alternative to costly commercial test-preparation services.

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 50 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 80%, with acceptance rates for individual years ranging from 73% 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. Students have an opportunity to participate in an undergraduate primary-care externship through the Scranton-Temple Residency Externship Program. In this program, students accompany physicians at Scranton Mercy and Moses Taylor Hospitals to gain exposure to clinical settings in primary-care medicine. Students gain transcript recognition for participation in this externship, as well as a clear view of the profession they seek to enter.

The University of Scranton is one of only six undergraduate institutions participating in the Jefferson Medical College Physician Shortage Area Program (PSAP). 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-Medical Program is supported by a network of hundreds of medical alumni and by an active Medical Alumni Council. The Medical Alumni Council has compiled a directory of physicians who have agreed to serve as resources for information or internship opportunities for University of Scranton students. It also 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 Biology or Biochemistry as their major. However, students may choose any major, provided that they meet the 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 courses must be taken with their corresponding labs.

- BIOL 141-142 General Biology
- CHEM 112-113 General and Analytical Chemistry
- CHEM 232-233 Organic Chemistry
- PHYS 120-121 General Physics
- CHEM 232-233 General Chemistry
- CHEM 232-233 Physical Chemistry

Virtual all medical schools require a year of English literature, and many require a semester or a year of mathematics, including calculus.

Many medical schools recommend that students demonstrate a wide range of interests in their choice both of courses and of extracurricular 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: Medical Ethics, PHIL 316: American Perspectives on Health Care Ethics, and/or T/RS 330: 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 applicant evaluation by the Health Professions Evaluation Committee (HPEC). This committee consists of 19 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. Students submit documents and request faculty letters of evaluation and are interviewed by two members of HPEC. 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 which 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; information about materials which students may borrow is available from the Director of Medical School Placement.

Additional Information

Information and copies of publications are also available from the Director of Medical School Placement. In addition, the student-supported Health Professions Organization Web site at www.scranton.edu/premed provides extensive helpful information for interested students.

Interdisciplinary Programs and Concentrations

Interdisciplinary Courses

Interdisciplinary courses are team-taught courses that vary from semester to semester. They may be used to fulfill appropriate General Education requirements as specified in the course schedule bulletin.

INTD 100 1 cr.
Freshman Seminar
Freshman seminars are designed to foster students' successful integration into academic and community life at The University of Scranton. Topics common to all freshman seminars include: the purpose of higher education; time management; the mission of a Jesuit university; academic development strategies; the role of faculty; University resources; and personal values.

INTD 103 3 cr.
(D) The Vietnam Experience
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 fall?

INTD 104 3 cr.
(D,E) Men's Health
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 3 cr.
Great Lives: Images on Stage
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 3 cr.
Health and Legal Implications of Chemical/Drug Abuse
A team-taught course that deals with the neurophysical, health, and legal implications of alcohol/drug abuse, viz: its biochemical effects and aspects, its legal and social consequences, and its health and lifestyle implications.

INTD 209 3 cr.
(D) The Holocaust
An exploration of the catastrophic 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.
**Academics • Interdisciplinary Programs and Concentrations**

INTD 211  3 cr.
(D,E) HIV/AIDS: Biological, Social and Cultural Issues
(Prerequisite: C/JIL 102 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 290  3 cr.
Leadership and Civic Responsibility
This course, which follows the Presidential Colloquy and bridges the first and second years, nurtures students’ 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 333  3 cr.
(CA/PW) The Bible in Image and Text
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.

NSCI 101  3 cr.
Science and Society
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 102  3 cr.
Science and Society
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 201  3 cr.
(E) Science and the Human Environment
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 208  3 cr.
(W,E) Science of the Day
This course presents the latest developments in science and technology, explores the ideas and techniques underlying these developments, and investigates both the implications these developments have on society and public policy as well as the effects that politics, social institutions and social mores have on scientific and technological advancement.

**Catholic Studies Program**
Susan F. Mathews, Ph.D., 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 it is possible for students to enter in their sophomore year. 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. Honors tutorials are encouraged. SJLA students are welcome.

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 academe; (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; 6 are required; the other 12 are electives. T/RS 214C must be taken; one semester of Christian Classics is also required. Students may build their studies on their majors and interests. Students are invited to petition for readers 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.

**Catholic Studies Electives**
Students will choose four courses from a list that may be obtained from the director or the Registrar’s Office.

**Required Courses**
T/RS 214C  3 cr.
(RW) Inside the Catholic Tradition
This introduction to Catholic Tradition will study its scope, depth, and on-going developments, reception, and characteristics. Topics covered include Faith and Revelation, the intercommunication of Scripture and Tradition, the role of Magisterium, and the development of doctrine. Selected readings are taken from important conciliar texts and theologians.

**Academics • Interdisciplinary Programs and Concentrations**

INTD 201C-202C  3 cr. each
(PW) Christian Classics I-II
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.

INTD 210  3 cr.
Catholic Bioethics: Biotechnology and Human Dignity
The current scientific understanding of human fertilization and development, reproductive technologies, human cloning, stem cell research, gene therapy and medically defined death will be reviewed. Pertinent ethical considerations will be discussed, presenting the Catholic perspective in dialogue with the major philosophical approaches.

**Environmental Studies Concentration**
Leonard W. Champney, Ph.D., Co-Director
John R. Kalafut, M.S., Co-Director
Edward M. Scabill, Ph.D., Co-Director
The Environmental Studies Concentration introduces students to the scientific, economic, legal, political and philosophical dimensions of environmental issues, both within the United States and globally. The concentration is open to students from any major and may be of particular interest to students planning careers in government, law or business.

Courses for the Environmental Studies Concentration are drawn from eight departments in the College of Arts and Sciences and the Kania School of Management. Many of these courses may also be used for general education requirements. To enroll, students should consult one of the co-directors of the concentration. The concentration consists of eight courses:

- BIOL 204 (E,D) Environmental Issues in Latin America
- CHEM 202 (E) Global Change
- ECO 103 (S) Economics of Environmental Issues
- NSCI 201 (E) Science and the Human Environment
- PHIL 213 (P) Environmental Ethics
- PHYS 106 (E) Energy and the Environment
Human Development Program

James P. Buchanan, 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 Human 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 Human Development concentration requires the following:

1. PSYC 221: Child Development & Adolescence
2. PSYC 222: Abnormal Psychology
3. CHS 241: Case Management and Interviewing
4. PSYC 360: Clinical Psychology or CHS 242: Counseling Theories or SOC 115: Introduction to Social Work
5. BIO 201: Anatomy and Physiology or BIO 202: ABCs of Genetics or PSYC 231: Behavioral Neuroscience


Course Descriptions

HD 224 Family Development
(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.

HD 234 Marital and Family Therapy
(Prerequisite: PSYC 110; recommended: PSYC 225) An introduction to the theory, research, and practice of couples-counseling and family therapy. Topics include family dysfunctions, assessment methods, treatment approaches, innovative techniques, and research findings. (Also listed as CHS 334.)

HD 325/PSYC 325 Abnormal Child Psychology
(Prerequisites: PSYC 110, PSYC 225) This course will consider atypical social, emotional, and mental development during childhood and adolescence. Topics include mental retardation, intellectual giftedness, learning disabilities, psychopathology of childhood and adolescence, and conduct disorders.

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 director 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 Elementary Italian
ITAL 211-212 Intermediate Italian
ITAL 311-312 Advanced Italian Composition and Conversation

Italian Studies Seminar (a specific topic course whose content varies according to the interests of students and faculty. Offered every two years.)

Elective Courses (choose four)

ARTH 214 Renaissance Art and Architecture: 1250-1500
ARTH 216 Michelangelo and His World
ARTH 217 Leonardo Da Vinci
**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 336Z The Jewish Way of Life

**Elective Courses (15 credits)**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENLT 329</td>
<td>Jewish Literature</td>
</tr>
<tr>
<td>INTD 209</td>
<td>The Holocaust</td>
</tr>
<tr>
<td>PHIL 340</td>
<td>Philosophy and Judaism</td>
</tr>
<tr>
<td>PHIL 410</td>
<td>Philosophy of Emmanuel Levinas</td>
</tr>
<tr>
<td>T/RS 210Z</td>
<td>Jews, Christians, and the Bible</td>
</tr>
<tr>
<td>T/RS 217</td>
<td>The Holocaust in Context: History and Theology</td>
</tr>
<tr>
<td>T/RS 240Z</td>
<td>Scrolls and Scriptures</td>
</tr>
<tr>
<td>T/RS 284</td>
<td>Biblical Hebrew I &amp; II</td>
</tr>
<tr>
<td>T/RS 310Z</td>
<td>Heart of the Old Testament</td>
</tr>
<tr>
<td>T/RS 311Z</td>
<td>Job and the Psalter</td>
</tr>
<tr>
<td>T/RS 312Z</td>
<td>The Great Prophets</td>
</tr>
<tr>
<td>T/RS 319Z</td>
<td>Judaism in the Time of Jesus</td>
</tr>
<tr>
<td>T/RS 337</td>
<td>Jewish Approaches to Ethics</td>
</tr>
<tr>
<td>T/RS 484</td>
<td>Special Topics: Jews and Christians (with permission of director)</td>
</tr>
</tbody>
</table>

**Latin American Studies Concentration**

Lee M. Penyak, Ph.D., Director

The Latin American Studies Concentration is designed to advance students’ awareness and understanding of Latin America. 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, and cultures both dominant and marginal. 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 and History), the Social Sciences area (Political Science), and some of them also carry cultural diversity and writing intensive credit. Supporting courses may fulfill general education requirements in other areas as well.

The Latin American Studies Concentration is an attractive complement to many existing majors. Related fields include foreign 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.

Core and supporting courses are listed below. Others will be added as they are developed.

**Credit Totals**

- Spanish language and other core/supporting courses: 24 credits
- OR Portuguese language and other core/supporting courses: 22.5 credits

**Language (4.5-6 credits)**

- SPAN 295 and/or SPAN 310 or higher (6 credits)
  - Native or near-native speakers who begin Spanish above the 311-312 level may be exempt from the Spanish-language requirement (with approval of the Chair of the Department of Foreign Languages and Literatures) but will need to take additional content courses to fulfill concentration credit requirements.
  - OR PORT 210 (4.5 credits)
  - Portuguese is taught intensively; only 4.5 credits are required.

**History (5 credits)**

- HIST 125 Colonial Latin America
- HIST 126 Modern Latin America

Students who take both core history courses may reduce their supporting course load to 9 credits.

**Political Science (3 credits)**

- PS 219 Survey of Latin American Politics

**Supporting Courses (12 credits)**

- BIOL 204 Environmental Issues in Latin America
- HIST 213 Gender and Family in Latin America

**Peace and Justice Studies Program**

Stephen J. Casey, M.A., Director

The Synod of Bishops of the Roman Catholic Church (1971) reported that “actions 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...” The 32nd General Congregation of the Society of Jesus (1974-75) established a pedagogical norm for its own institutions of higher education when it determined that the practice of faith was inextricably linked to the promotion of justice. In this vein the University’s Peace and Justice Studies program was instituted to bring academic studies, including

* Restricted to senior history majors and four-year B.A./MA. History students.
* A 6-credit internship course can be taken in Guadalajara, Mexico, for 3 credits in Foreign Languages (dual enrollment) and 3 credits in Political Science (during spring semester).
* May be used as a “supporting course” when course content is specific to Latin America.
classes, community service and interdisciplinary research, into the particular requirements 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. Eight courses (24 credits) must be taken by students in order to have “Peace and Justice Concentration” added to their transcripts. 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.

Many students seek some understanding of the connections of their service work, general education and their majors. The concentration will assist in the integration of these pieces, the concluding (capstone) course is intended to be integrative.

The following courses will provide students with the opportunities to reflect critically on the social, economic, psychological, political and structural issues impeding the establishing of a just and peaceful society.

A. Requirements in Theology (any two of the following):

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>T/RS 231</td>
<td>Social Ethics</td>
</tr>
<tr>
<td>T/RS 232</td>
<td>John Paul II and Catholic Social Thought</td>
</tr>
<tr>
<td>T/RS 234</td>
<td>Twentieth-Century Peacemakers</td>
</tr>
<tr>
<td>T/RS 236</td>
<td>Prophets and Profits</td>
</tr>
<tr>
<td>T/RS 237</td>
<td>Politics: A Christian Perspective</td>
</tr>
<tr>
<td>T/RS 239Z</td>
<td>Money and Power in the Biblical Tradition</td>
</tr>
<tr>
<td>T/RS 328</td>
<td>Wealth and Poverty in the Biblical Traditions</td>
</tr>
<tr>
<td>T/RS 331Z</td>
<td>God and the Earth</td>
</tr>
<tr>
<td>T/RS 332Z</td>
<td>Jesus and the Moral Life</td>
</tr>
<tr>
<td>T/RS 334Z</td>
<td>The Church and Contemporary Social Issues</td>
</tr>
</tbody>
</table>

B. Electives (any five courses listed below can be counted; others may be included with approval from the program coordinator):

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHS 333</td>
<td>Multiculturalism in Human Services</td>
</tr>
<tr>
<td>CHS 338</td>
<td>Poverty, Homelessness and Social Justice</td>
</tr>
<tr>
<td>COMM 311</td>
<td>Political Communication</td>
</tr>
<tr>
<td>COMM 316</td>
<td>Communication Ethics</td>
</tr>
<tr>
<td>ECO 462</td>
<td>Urban and Regional Economics</td>
</tr>
<tr>
<td>ECO 465</td>
<td>Development Economics</td>
</tr>
<tr>
<td>ENLT 226</td>
<td>Novels by Women</td>
</tr>
<tr>
<td>ENLT 228</td>
<td>Race in Anglo-American Culture 1600-1860</td>
</tr>
<tr>
<td>ENLT 348</td>
<td>Colonial and Post-Colonial Fiction</td>
</tr>
<tr>
<td>GEOG 217</td>
<td>Cultural Geography</td>
</tr>
<tr>
<td>HIST 125</td>
<td>Colonial Latin America</td>
</tr>
<tr>
<td>HIST 211</td>
<td>The Third World</td>
</tr>
<tr>
<td>HIST 215</td>
<td>Church and Society in Latin America</td>
</tr>
<tr>
<td>HIST 216</td>
<td>Race in American History</td>
</tr>
<tr>
<td>HIST 224</td>
<td>Ethnic and Racial Minorities in NEPA</td>
</tr>
<tr>
<td>HIST 327</td>
<td>The African Experience in Latin America 1500-1900</td>
</tr>
<tr>
<td>INTD 209</td>
<td>The Holocaust</td>
</tr>
<tr>
<td>INTD 211</td>
<td>HIV/AIDS: Biological, Social and Cultural Issues</td>
</tr>
<tr>
<td>LIT 207</td>
<td>Literature of American Minorities</td>
</tr>
<tr>
<td>MGT 473</td>
<td>Organizational Social Responsibility</td>
</tr>
<tr>
<td>NSCI 201</td>
<td>Science and the Human Environment</td>
</tr>
<tr>
<td>PHIL 213</td>
<td>Environmental Ethics</td>
</tr>
<tr>
<td>PHIL 218</td>
<td>Feminism: Theory and Practice</td>
</tr>
<tr>
<td>PHIL 227</td>
<td>Political Philosophy</td>
</tr>
<tr>
<td>PHIL 410</td>
<td>Philosophy of Culture</td>
</tr>
<tr>
<td>PHYS 106</td>
<td>Energy and the Environment</td>
</tr>
<tr>
<td>PS 227</td>
<td>Women, Authority and Power</td>
</tr>
<tr>
<td>PS 216</td>
<td>Women’s Rights and Status</td>
</tr>
<tr>
<td>PSYC 220</td>
<td>Social Psychology</td>
</tr>
<tr>
<td>S/CJ 210</td>
<td>Law and Society</td>
</tr>
<tr>
<td>SOC 116</td>
<td>Community Organization</td>
</tr>
<tr>
<td>SOC 224</td>
<td>American Minority Groups</td>
</tr>
<tr>
<td>SPAN 314</td>
<td>Topics in Latin American Culture and Civilization</td>
</tr>
</tbody>
</table>

C. Integrative Capstone Course (required in senior year):

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>T/JP 310</td>
<td>Peace and Justice and World *</td>
</tr>
</tbody>
</table>

In this seminar student 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.

Women’s Studies Concentration

Sharon M. Meagher, Ph.D., Director

Women’s Studies Concentration consists of courses that examine women’s experiences and the ways gender-related issues affect human lives and cultures. Faculty and students analyze the ways gender roles and images and assumptions about gender are reflected in art, business, literature, law, philosophy, public policy, religion, language, history, the sciences, and their own lives. Many Women’s Studies courses also address issues of race, class, ethnicity, and age as they intersect with gender issues.

Women’s Studies courses focus on women’s experiences in history, society, and culture, and examine institutional structure modes of authority/analysis of power, especially considering their implications for women; and incorporate one or more feminist analyses/scholarly works (recognizing that there are multiple, and even conflicting, feminist perspectives).

Women’s Studies seek to promote critical thinking, intellectual growth, and self-awareness useful to all students. It is an attractive academic supplement for students planning careers in government, law, business, human services, ministry, and teaching – to name but a few.

Courses for the Women’s 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 Women’s Studies.) The concentration consists of six courses including one required core course (PHIL 218 or SOC 315). Many of the cross-listed Women’s Studies courses also fulfill major, minor, cognate, and/or general education requirements. Students also are encouraged to do extracurricular activities that will enrich the classroom experience.

Students may, with the approval of the Women’s Studies Committee, substitute an honors tutorial or thesis, study abroad courses, one reader, or a non-cross-listed course for a women’s studies elective in cases where major requirements are completed in ways that meet the course criteria for women’s studies. Students seeking such substitutions should seek advice from the Director of Women’s Studies, preferably before completing the credits they wish to substitute.

Women’s Studies Courses

Some of the listed courses have prerequisites; please consult departmental description.

Required Courses: Students are encouraged to take both.

- PHIL 218 (RD) Feminism: Theory and Practice
- OR
- SOC 315 Feminism and Social Change

Supplemental Courses: Choose any five (or four if both PHIL 218 and SOC 315 are taken).

ANTH 110 (CA, D) Women in the Visual Arts

ARTH 311 (W, D, CA) Medieval and Renaissance Women

CHS 337 (D, W) Counseling Girls and Women

COMM 229 (D) Gender and Communication

ENLT 225 (CL, D, W) Writing Women

ENLT 227 (CL, D, W) Frankenstein’s Forebears

ENLT 226 (CL, D) Novels by Women

ENLT 228 (CL, D, W) Race in Anglo-American Culture 1600-1860

FREN 430 (CH, D, W) French Women Writers

HIST 213 (CH, D, W) Gender and Family in Latin America

HIST 238 (CH, D) History of American Women

HIST 239 (CH, D) History of American Women II

ITAL 221 (CL, D, W) Italian Women’s Writing

LIT 207 (CL, D, W) Literature of American Minorities

NURS 111 (D) Women’s Health

PHIL 231 (RD) Philosophy of Women

PHIL 326 (RD) Advanced Topics in Feminist Theory

PHIL 331 (P) Feminist Philosophy of Science

* Taught in the original language.
Course Descriptions

WOMN 380-81 3 cr.
Women’s Studies Internship
(Pequisites PHIL 218, SOC 215 or permission of Women’s Studies 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.

Air and Space Studies (Air Force Reserve Officer Training Corps)
Lt. Col. Caster, Chair

The Air Force Reserve Officer Training Corps (AFROTC) program at Wilkes University permits students attending The University of Scranton to earn commissions as officers in the United States Air Force while pursuing a University of Scranton degree. Students enroll in either the four-year or two-year program. Students with three years remaining until graduation may enroll concurrently in the freshman and sophomore Air and Space Studies courses and can complete the four-year program in three years. Interested students may call the detachment and query staff at (570) 408-4860 to inquire about additional programs.

General Military Course
The first two years of the four-year program constitute the General Military Course (GMC). GMC courses are open to any University student. Students enrolling in these courses do not incur any military service obligation. (Exception: Air Force scholarship recipients incur a commitment at the beginning of their sophomore year.) The GMC curriculum consists of four 1-credit Air and Space Studies courses; a non-credit leadership laboratory each semester, which introduces students to U.S. Air Force history and environment, customs, courtesies, drill and ceremonies, and leadership skills; and Physical Training (PT) twice weekly.

Field Training
Field Training consists of a four-week, 3-credit Air and Space Studies course or a six-week, 3-credit Air and Space studies course conducted at selected Air Force bases. It provides students an opportunity to observe Air Force units and people at work; to participate in marksmanship, survival, athletics, and leadership training activities; to experience aircraft orientation flights; and to work with contemporaries from other colleges and universities. Transportation from the legal residence of the cadet to the field training base and return, food, lodging, and medical and dental care are provided by the Air Force.

Professional Officer Course
The final two years of the four-year program comprise the Professional Officer Course (POC). It consists of four 3-credit Air and Space Studies courses, a non-credit leadership laboratory each semester, and PT twice weekly. To be accepted into the POC, students must pass a physical examination and an officer qualification test, a physical fitness test, and meet certain academic standards. Four-year cadets must complete a four-week field training program; two-year applicants must complete a six-week field training program, both of which are administered the summer before POC entry.

Professional Development Program (optional)
The program allows both GMC and POC members to visit a USAF base for up to three weeks during the summer (cadets attending Field Training are not eligible.) PD allows the cadet to “shadow” an active duty officer working in the student’s career interest area. Transportation from the legal residence of the cadet to the PD base (and return), food, lodging, and medical and dental care during the visit are provided by the Air Force. The participating cadet is also provided a nominal stipend during the program.

Scholarships
AFROTC offers full- and partial-tuition scholarships for which qualified students may compete if they enroll in AFROTC. All scholarship awards are based on individual merit, regardless of financial need, with most scholarship recipients determined by central selection boards. Since scholarship applicants must meet certain academic, physical fitness and medical requirement to be considered by the scholarship boards, students should contact the Air and Space Studies Department early in the fall semester. High school students wishing to compete for AFROTC college scholarships must complete and submit an application early in the fall term of their senior year. Contracted cadets also receive a monthly stipend and book allowance.

Commissioning
Students who satisfactorily complete the POC curriculum requirements are commissioned as Second Lieutenants in the U.S. Air Force and will serve on active duty in a career specialty they have chosen, consistent with USAF needs.

General Education Curriculum
All students at The University of Scranton have the opportunity to become liberally educated in the Ignatian tradition. This liberal education will include the development of general skills and skills in the major. It will also include opportunity 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 catalog and course bulletin listings by a letter code in parentheses preceding the course title:

Q Quantitative Reasoning
CH Humanities/Culture: History
CL Humanities/Culture: Literature
CA Humanities/Culture: Arts
CF Humanities/Culture: Foreign Languages
P Philosophy or Theology/Religious Studies
E Natural Science
S Social/Behavioral Science
W Writing-Intensive
D Cultural Diversity

Courses having more than one letter code indicates that the course satisfies multiple general education requirements: e.g., (CH, W) satisfies both a Humanities/Culture: History and a Writing-Intensive requirement.

Outline of General Education Requirements

Skills Acquisition
Because of its recognition that utilizing information technology, writing and speaking effectively are skills necessary for success in college and in one’s later professional life, 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. 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 or 104. These examinations may be taken only once by freshmen and sophomores who have not taken the course in the same skill area.
2. Successful completion (a grade of C or higher) of each course set up to facilitate mastery of these skills: COMM 100 for oral communication; WRTG 107 (or appropriate advanced standing course) for writing skills; and each component of C/IL 102/102L (or 104) for ability to use digital technology.

Public Speaking: One course, 3 credits; minimum grade of C required
COMM 100 Public Speaking
PHIL 217J The Trivium

Basic Composition: One or two courses, 3-6 credits; minimum grade of C required
WRTG 105 & 106 College Writing I & II
WRTG 107 Composition

* Taught in the original language.
Academics • General Education Curriculum

General Education Summary

<table>
<thead>
<tr>
<th>Subject</th>
<th>Credits</th>
<th>Courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freshman Seminar</td>
<td>1</td>
<td>INTD 100</td>
</tr>
<tr>
<td>Physical Education</td>
<td>3</td>
<td>Courses approved as PHED activity classes¹</td>
</tr>
<tr>
<td>Writing</td>
<td>3 or 6</td>
<td>WRTG 107 or (WRTG 105 and 106 for ADP only)²</td>
</tr>
<tr>
<td>Public Speaking</td>
<td>3</td>
<td>COMM 100³ or PHIL 217</td>
</tr>
<tr>
<td>Computing/Information Literacy</td>
<td>3</td>
<td>C/IL 102 and 102L, or 104⁴</td>
</tr>
<tr>
<td>Quantitative Reasoning</td>
<td>3-4</td>
<td>Courses designated with (Q)</td>
</tr>
<tr>
<td>Theology/Philosophy</td>
<td>15</td>
<td>T/RS 121 and 122, PHIL 120 and 210 and approved T/RS or PHIL Elective (P)</td>
</tr>
<tr>
<td>Natural Science</td>
<td>6-8</td>
<td>Courses designated with (E)</td>
</tr>
<tr>
<td>Humanities</td>
<td>12 total</td>
<td>6 credits in one area: History (CH), Literature (CL), or Foreign Language (CF).</td>
</tr>
<tr>
<td>History</td>
<td>0-6</td>
<td>Literature (CL), or Foreign Language (CF).</td>
</tr>
<tr>
<td>Literature</td>
<td>0-6</td>
<td>6 additional credits from any of the remaining humanities area, but no more than 3 from Art/Music/Theatre area (CA).</td>
</tr>
<tr>
<td>Foreign Language</td>
<td>0-6</td>
<td></td>
</tr>
<tr>
<td>Art/Music/Theatre</td>
<td>0-3</td>
<td></td>
</tr>
<tr>
<td>Social/Behavioral Science</td>
<td>6</td>
<td>Courses designated with (S)</td>
</tr>
<tr>
<td>Writing Intensive</td>
<td>3-6</td>
<td>Two courses designated (W); one should be in the major²</td>
</tr>
<tr>
<td>Cultural Diversity</td>
<td>6</td>
<td>Two courses designated with (D)³</td>
</tr>
<tr>
<td>Electives</td>
<td>12</td>
<td>Any subject except PHED activity classes</td>
</tr>
<tr>
<td>Total Credits</td>
<td>77-85</td>
<td>based upon major and credit value of courses</td>
</tr>
</tbody>
</table>

¹ Requirement may be satisfied by exemption exam.
² Writing-intensive and cultural diversity courses may also satisfy other requirements in the general education curriculum reducing the total number of credits required.
³ C/IL 102/102L Computing and Information Literacy for Business (a focused variant of C/IL 102/102L with an emphasis appropriate for students with majors in the Kania School of Management)

Computing/Information Literacy: One course and laboratory, 3 credits; minimum grade of C required
C/IL 102/102L, Computing and Information Literacy
C/IL 104, Computing and Information Literacy for Business

Subject Matter Mastery

Writing-Intensive Requirement (W): 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, 211, 212, 218, 310) may be substituted for one of the two required writing-intensive courses.

Quantitative Reasoning (Q): One course, 3 credits* A mathematically 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 †Theology I T/RS 122 †Theology II
• 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): 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 Experience: One course, 1 credit INTD 100: Freshman Seminar
• Physical Education: Three or more courses totaling 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
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 (other than 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.

Recommended General Education Course Sequence

First Year
Speech: COMM 100
Writing: WRTG 107 or PHIL 217 or WRTG 105 and 106
Computer Literacy: C/IL 102/102L or C/IL 104
Quantitative Reasoning (designated with Q)
Freshman Seminar: INTD 100

First and Second Year
Philosophy: PHIL 120, PHIL 210
Theology/Religious Studies: T/RS 121-122
Humanities (designated with CH, CL, CF or CA)
Natural Science (designated with E)
Social/Behavioral Science (designated with S)
Physical Education

Second and Third Year
Electives: Students should begin the 12 credits of free electives that are required.
Philosophy or Theology elective (designated with P): Most students will not have had the opportunity to complete all of the GE requirements listed under First and Second Year and, therefore, will attend to these requirements in the third and even the fourth years. Students are advised to have fulfilled some of their cultural diversity and writing-intensive course requirements during this time.*

Fourth Year
Finish GE requirements that have not been completed by the end of the third year, including the writing-intensive and cultural diversity requirements.

Footnotes:
* A list of eligble courses to fulfill general education requirements is available through the academic advising centers, the dean’s office, the Office of the Registrar and online at www.scranton.edu/academics/elist.shtml. Not all courses are offered every registration cycle.

† 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 (other than PHED activity courses) may be used as a free elective. Please refer to the department course listings in the catalog for complete course descriptions.
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 CPS 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 take a Freshman Seminar designed to help them make informed decisions about their majors. All CAS Common Curriculum students should take at least two potential major courses each semester of their freshman year.

<table>
<thead>
<tr>
<th>Department and Number</th>
<th>Descriptive Title of Course</th>
<th>Fall Cr.</th>
<th>Spr. Cr.</th>
</tr>
</thead>
<tbody>
<tr>
<td>GE BASIC SKILLS</td>
<td>Public Speaking/Composition/Computer Literacy</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE PHIL or T/RS</td>
<td>Theology I or Intro to Philosophy</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>MAJOR</td>
<td>Select from intro classes of any major</td>
<td>3-4.5</td>
<td>3-4.5</td>
</tr>
<tr>
<td>MAJOR</td>
<td>Select from intro classes of any major</td>
<td>3-4.5</td>
<td>3-4.5</td>
</tr>
<tr>
<td>MAJOR</td>
<td>Select from intro classes of any major</td>
<td>3-4.5</td>
<td>3-4.5</td>
</tr>
<tr>
<td>INTD 100</td>
<td>Freshman Seminar</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>PHED</td>
<td>Physical Education</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>16-18</td>
<td>16-18</td>
</tr>
</tbody>
</table>

KSOM Business 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.

<table>
<thead>
<tr>
<th>Department and Number</th>
<th>Descriptive Title of Course</th>
<th>Fall Cr.</th>
<th>Spr. Cr.</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAJOR (GE S/BH)</td>
<td>ECO 153–154 Prin. of Micro–Macro Econ.</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE WRTG–SPCH</td>
<td>WRTG 107–COMM 100 Composition–Public Speaking</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE C/IL</td>
<td>C/IL 104 Computer Info. Literacy</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE PHIL</td>
<td>PHIL 120 Intro to Philosophy</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE T/RS</td>
<td>T/RS 121 Theology I</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE QUAN</td>
<td>MATH ELECT Math Option (two courses)</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE HUMN</td>
<td>HUMN ELECT Humanities Elective</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE FSEM</td>
<td>INTD 100 Freshman Seminar</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>GE PHED</td>
<td>PHED ELECT Physical Education</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>16</td>
<td>16</td>
</tr>
</tbody>
</table>

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.

<table>
<thead>
<tr>
<th>Department and Number</th>
<th>Descriptive Title of Course</th>
<th>Fall Cr.</th>
<th>Spr. Cr.</th>
</tr>
</thead>
<tbody>
<tr>
<td>GE COMM 100</td>
<td>COMM 100 Public Speaking</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE WRTG 107</td>
<td>WRTG 107 Composition</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE PHIL–T/RS</td>
<td>PHIL 120–T/RS 121 Intro to Philosophy–Theology I</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE NSCI</td>
<td>BIOL 110–111 Structure &amp; Function of Human Body</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>GE S/BH</td>
<td>PSYC 110 Fundamentals of Psychology</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE C/IL 102</td>
<td>C/IL 102 Computing &amp; Info Literacy</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE HUMN</td>
<td>HUMN ELECT Humanities Elective</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE FSEM</td>
<td>INTD 100 Freshman Seminar</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>MAJOR</td>
<td>ELECT Elective or Core Course</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>ELECT</td>
<td>CHS 332 Career Choice</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>17</td>
<td>18</td>
</tr>
</tbody>
</table>
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
Willis M. Conover, Ed.D., Chair
Josephine M. Dunn, Ph.D., Director
Art and Music Program
See History for faculty listing.

Overview
The Art and Music program offers two minors: Art History and Music History. Foundation courses in studio art are also offered (e.g., drawing, design and painting). Each discipline aims to develop a student's creative expression, to prompt aesthetic appreciation and judgment, to develop critical thinking, and to deepen understanding of the impulse to create with sound and image.

Designated courses in Art History and Music History satisfy General Education requirements in the following areas: Humanities, Cultural Diversity, and Writing-Intensive.

Minor in Art History
A minor in Art History requires 18 credits, including ARTH 111 and 112. 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 and Anthracite Museum are available to Art History minors upon completing 12 credits in Art History.

Students with minors in Art History have recently enrolled in graduate degree programs in art history, decorative arts, library science and museum education. Others have accepted employment with the Metropolitan Museum of Art, Sotheby’s New York and the Franklin Institute, Philadelphia. Students with music literature minors have pursued careers in recording, musical composition and performance. Studio artists have continued their studies at the Moore College of Art, Maryland Institute of Art, and the Art Students’ League, New York City.

Minor in Music History
A minor in Music History requires 18 credits, including MUS 111, 112, 235, 236, and two additional music courses numbered 110 or above.

Course Descriptions

Art

ARTH 112 3 cr.
Color and Design
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.

ARTH 114 3 cr.
Three-Dimensional Design
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.

ARTH 116 3 cr.
Basic Drawing
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.

ARTH 120 3 cr.
Painting I
(Prerequisite: ART 112, 116 or equivalent) A first-level painting course concerned with fundamentals such as composition, observation, basic color theory and basic techniques. The class includes one museum trip and regular group critiques.

ARTH 182, 183 3 cr.
Independent Study Courses
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.

ARTH 184 3 cr.
Special Topics
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.

ARTH 322 3 cr.
Two-Dimensional Computer Animation Techniques
(Prerequisites: CMPS 202 or CMPS 334 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. (Also listed as MIT 322.)

ARTH 324 3 cr.
3D Computer-generated Animation/Content
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. (Also listed as MIT 324.)

ARTH History

ARTH 111 3 cr.
(CA) History of World Art I
A survey of the history of painting, sculpture, and architecture from prehistoric times through the dawn of the Renaissance in 1400. The art of ancient Eastern and Western civilizations is studied in historical contexts of idea, style and technique.

ARTH 112 3 cr.
(CA) History of World Art II
The course opens with the history of painting, sculpture, and architecture in Renaissance, Baroque, and 18th-century Europe. Introduced by Impressionism, Expressionism, and Cubism, the study of the art of the modern world concludes with a survey of idea, style and technique in 20th-century art. (ARTH 111 not a prerequisite.)

ARTH 117 3 cr.
(CA) History of World Art III
The course opens with the history of painting, sculpture, and architecture in Renaissance, Baroque, and 18th-century Europe. (Formerly ARTH 201) An introduction to the art and architecture of the modern world concludes with a survey of idea, style and technique in 20th-century art. (ARTH 111 not a prerequisite.)

ARTH 118 3 cr.
(W) Medieval Art: Romanesque and Gothic
(Formerly ARTH 202) A survey of 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 119 3 cr.
(CA,D) Native American Art
Students will study the history, society, religious beliefs and craft traditions of the precolonial peoples of the United States, as well as contemporary Native American artists. The course entails group work, a collaborative final project, and a trip to the Mashantucket Pequot Museum in Connecticut or to the National Museum of the American Indian in Washington, D.C.

ARTH 114 3 cr.
(CA) History of Architecture
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 3 cr.
Art of the Ancient World
(Formerly ARTH 203) 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 3 cr.
(CA) Art of Greece and Rome
(Formerly ARTH 202) 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. A.D.).

ARTH 117 3 cr.
Early Christian and Byzantine Art
(Formerly ARTH 203) The course begins with 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 3 cr.
(W) Medieval Art: Romanesque and Gothic
(Formerly ARTH 204) 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 205 3 cr.
The Icon in Russian and East European Art
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.

ARTH 210 3 cr.
(CA,D.W) Women in the Visual Arts
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.
many drawings, and copious notes attesting the

ARTH 212 3 cr.
(CAD, W) African American Art
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 3 cr.
(CAD, W) American Art
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 3 cr.
Renaissance Art in Italy, 1200-1480
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 3 cr.
Renaissance Art in Italy, 1480-1620
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 3 cr.
(CA, W) Michelangelo and His World
(Formerly ARTH 410) 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 3 cr.
(W) Leonardo Da Vinci
(Formerly ARTH 411) 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 3 cr.
(W) The Age of Rembrandt
(Formerly ARTH 303) 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 3 cr.
The Renaissance in Northern Europe
(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 3 cr.
(WD) History of Photography
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 3 cr.
(CAD, W) Nineteenth-Century Art
(Formerly ARTH 304) An exploration of painting and sculpture from Neoclassicism to Symbolism. Special emphasis will be given to works by J. J. 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 3 cr.
(W) Impressionism and Post-Impressionism
(Formerly ARTH 312) 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 3 cr.
(CAD, W) Art of the Twentieth Century
(Formerly ARTH 305) 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.

ARTH 227 3 cr.
(CAD, W) Matisse and Picasso
(Formerly ARTH 315) 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.

ARTH 295-296 3 cr.
(WD, CA) Travel Seminar
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 311 3 cr.
(W, D, CA) Medieval and Renaissance Women
This topics course explores various ways of looking at Italian medieval and Renaissance women in text and image. Primary texts by Ildefogard 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 316 3 cr.
Painted Chambers of the Renaissance
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 private homes, churches and civic structures. Contemporary literature of the period will also be studied.

ARTH 380 1-3 cr.
Museum Methods (Internship)
(Prerequisites: ARTH 111, 112 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.

ARTH 384, 484 3 cr.
Special Topics
(Prerequisites: ARTH 111, 112 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.

Music

MUS 111 3 cr.
(CA) Music History I
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 3 cr.
(CA) Music History II
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 3 cr.
Keyboard Music
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 3 cr.
Symphony
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 3 cr.
Opera
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 3 cr.
American Musical Theatre
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 3 cr.
History of Jazz
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 3 cr.
(CA,W) Music in the Renaissance
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 3 cr.
Bach
(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 3 cr.
Mozart
(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 3 cr.
Beethoven
(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 3 cr.
Romantic Music of the Nineteenth Century
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 3 cr.
Music of the Twentieth Century
(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 3 cr.
Music in America
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 3 cr.
Music Theory I
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 3 cr.
Music Theory II
(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 3 cr.
Liturgical Music
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 3 cr.
Special Topics
Selected topics in music history will vary from year to year in accord with student/faculty interest.

MUS 335 3 cr.
Introduction to Composition
(Prerequisites: MUS 235, 236) Guided individual projects in original composition, together with the analysis of selected works from the classical repertory.

MUS 358 3 cr.
Cellular and Molecular Biology
Major Electives (see department pages for course descriptions)
Choose one of the following in the second year:

BCOL 250 Microbiology
BCOL 344 Principles of Immunology
BCOL 350 Cellular Biology

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.

Choose two of the following in the third and fourth years:

BCOL 493 Research (may be an internship if approved by BCOL Advisory Board)
BCOL 425 Physiology
BCOL 420 Microbiology
BCOL 344 Principles of Immunology
BCOL 350 Cellular Biology
BCOL 351 Developmental Biology
BCOL 358 Cellular and Molecular Neurobiology
BCOL 364 Virology
CHEM 352 Chemical Toxicology
CHEM 360 Biophysical Chemistry I
CHEM 370 Instrumental Analysis

Course Descriptions

BCOL 290 1 cr.
Seminar
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.

BCOL 440 3 cr.
Proteomics
(Prerequisites: BIOL 361 or 362 and CHEM 450 or 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.

BCOL 440L Proteomics Lab
(Prerequisite: BCOL 440) Hands-on experience in 2D electrophoresis, mass spectrometry and protein identification using available databases.

BCOL 490 3 cr.
Biochemistry, Cell and Molecular Biology
Capstone
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.
### Biochemistry, Cell and Molecular Biology Curriculum

<table>
<thead>
<tr>
<th>Department and Number</th>
<th>Descriptive Title of Course</th>
<th>Fall Cr.</th>
<th>Spr. Cr.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>First Year</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAJOR (GE NSCI) CHEM 112–113</td>
<td>General Analytical Chemistry I-II</td>
<td>4.5</td>
<td>4.5</td>
</tr>
<tr>
<td>MAJOR BIOL 141–142</td>
<td>General Biology I-II</td>
<td>4.5</td>
<td>4.5</td>
</tr>
<tr>
<td>GE QUAN-COGNATE MATH 103–114</td>
<td>Pre-Calculus Math-Analysis I</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>GE WRTG WRTG 107</td>
<td>Composition</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE C/IL C/IL 102</td>
<td>Computing and Information Literacy</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE FSEM INTED 100</td>
<td>Freshman Seminar</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>MAJOR BCMB 290</td>
<td>BCMB Seminar</td>
<td>17</td>
<td>17</td>
</tr>
<tr>
<td><strong>Second Year</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAJOR CHEM 232–233</td>
<td>Organic Chemistry I-II</td>
<td>4.5</td>
<td>4.5</td>
</tr>
<tr>
<td>MAJOR BIOL 361</td>
<td>Molecular Biology I</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>MAJOR BCMB 290</td>
<td>BCMB Seminar</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>MAJOR BIOL ELECT</td>
<td>Biology Elective</td>
<td>3-5</td>
<td>3-5</td>
</tr>
<tr>
<td>GE SPCH COMM 100</td>
<td>Public Speaking</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE T/RS T/RS 121</td>
<td>Theology I</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE PHIL PHIL 120</td>
<td>Introduction to Philosophy</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE HUMN HUMN ELECT</td>
<td>Humanities Elective</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE S/BH S/BH ELECT</td>
<td>Social/Behavioral Elective</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE PHED PHED ELECT</td>
<td>Physical Education</td>
<td>16.5-18.5</td>
<td>17.5</td>
</tr>
<tr>
<td><strong>Third Year</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAJOR CHEM 450–451</td>
<td>Biochemistry I-II</td>
<td>4.5</td>
<td>3</td>
</tr>
<tr>
<td>MAJOR BCMB 290</td>
<td>BCMB Seminar</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>MAJOR BIOL/CHM ELECT</td>
<td>Biology/Chemistry Elective</td>
<td>3-4.5</td>
<td>3-4.5</td>
</tr>
<tr>
<td>COGNATE PHYS 120–121</td>
<td>General Physics I-II</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>GE T/RS-PHIL T/RS-PHIL 210</td>
<td>Theology II-Ethics</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE S/BH S/BH ELECT</td>
<td>Social/Behavioral Elective</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE HUMN HUMN ELECT</td>
<td>Humanities Elective</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE PHED PHED ELECT</td>
<td>Physical Education</td>
<td>15.5-17</td>
<td>17</td>
</tr>
<tr>
<td><strong>Fourth Year</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAJOR BCMB 490</td>
<td>Biochemistry Capstone</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>MAJOR BCMB 440–440L</td>
<td>Proteomics–Proteomics Lab</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>MAJOR BIOL 362</td>
<td>Molecular Biology II</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>MAJOR BIOL/CHM ELECT</td>
<td>Biology/Chemistry Elective</td>
<td>3-5</td>
<td>3-5</td>
</tr>
<tr>
<td>GE HUMN HUMN ELECT</td>
<td>Humanities Elective</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE T/RS-PHIL T/RS-PHIL ELECT</td>
<td>T/R or Philosophy Elective</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE FREE ELECT</td>
<td>Free Elective</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE PHED PHED ELECT</td>
<td>Physical Education</td>
<td>17</td>
<td>13-15</td>
</tr>
</tbody>
</table>

TOTAL: 130.5-136 CREDITS

---

### Overview

Courses in the Department of Biology are designed to achieve the following objectives:

1. To present the fundamental scientific facts and concepts which are needed for an understanding of the living world and people's relation to it;
2. To prepare students for advanced study or work in other biological fields.

The Bachelor of Science degree in Biology program supplies preprofessional preparation meeting all requirements and recommendations of professional schools (medicine, dentistry, veterinary medicine, optometry, podiatry).

### Minor in Biology

The student must complete Biology 141-142, including the laboratory, and 15 additional credits of courses suitable to the Biology major. Biology electives must be selected from at least three of the five established course groups, and must include at least 3 credits of advanced laboratory work. 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.

### Course Descriptions

- **BIOL 100**
  - **E (E) Modern Concepts of Human Biology**
  - 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 (E) Introduction to Biological Science**
  - 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
### Biology Curriculum

<table>
<thead>
<tr>
<th>Department and Number</th>
<th>Descriptive Title of Course</th>
<th>Fall Cr.</th>
<th>Spr. Cr.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>First Year</strong> Major (GE NSCI)</td>
<td>BIOL 141–142</td>
<td>General Biology</td>
<td>4.5</td>
</tr>
<tr>
<td>OCGNATE</td>
<td>CHEM 112–113</td>
<td>General Analytical Chemistry I–II</td>
<td>4.5</td>
</tr>
<tr>
<td>GE WRTG–SCH</td>
<td>WRTG 107–COMM 100</td>
<td>Composition—Public Speaking</td>
<td>3</td>
</tr>
<tr>
<td>GE C/IL</td>
<td>C/IL 102</td>
<td>Computing and Information Literacy</td>
<td>3</td>
</tr>
<tr>
<td>GE PHIL</td>
<td>PHIL 120</td>
<td>Introduction to Philosophy</td>
<td>3</td>
</tr>
<tr>
<td>GE HUMN</td>
<td>HUMN ELECT</td>
<td>Humanities Elective</td>
<td>3</td>
</tr>
<tr>
<td>GE FSEM</td>
<td>INTD 100</td>
<td>Freshman Seminar</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td><strong>16</strong></td>
</tr>
<tr>
<td><strong>Second Year</strong> Major</td>
<td>BIOL ELECT</td>
<td>Biology Electives</td>
<td>4.5</td>
</tr>
<tr>
<td>OCGNATE</td>
<td>CHEM 232–233</td>
<td>Organic Chemistry I–II</td>
<td>4.5</td>
</tr>
<tr>
<td>GE QUAN–COGNATE</td>
<td>MATH 103–114</td>
<td>Precalculus Math—Analysis I</td>
<td>4</td>
</tr>
<tr>
<td>GE S/BH</td>
<td>S/BH ELECT</td>
<td>Social/Behavioral Elective</td>
<td>3</td>
</tr>
<tr>
<td>GE PHIL–T/RS</td>
<td>PHIL 210–T/RS 121</td>
<td>Ethics—Theology I</td>
<td>3</td>
</tr>
<tr>
<td>GE PHED</td>
<td>PHED ELECT</td>
<td>Physical Education</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td><strong>17</strong></td>
</tr>
<tr>
<td><strong>Third Year</strong> Major</td>
<td>BIOL ELECT</td>
<td>Biology Electives</td>
<td>4.5</td>
</tr>
<tr>
<td>OCGNATE</td>
<td>PHYS 120–121</td>
<td>General Physics I–II</td>
<td>4</td>
</tr>
<tr>
<td>GE S/BH</td>
<td>S/BH ELECT</td>
<td>Social/Behavioral Elective</td>
<td>3</td>
</tr>
<tr>
<td>GE HUMN</td>
<td>HUMN ELECT</td>
<td>Humanities Electives</td>
<td>3</td>
</tr>
<tr>
<td>GE T/RS</td>
<td>T/RS 122</td>
<td>Theology II</td>
<td>3</td>
</tr>
<tr>
<td>GE ELECT</td>
<td>FREE ELECT</td>
<td>Free Elective</td>
<td>3</td>
</tr>
<tr>
<td>GE PHED</td>
<td>PHED ELECT</td>
<td>Physical Education</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td><strong>17.5</strong></td>
</tr>
<tr>
<td><strong>Fourth Year</strong> Major</td>
<td>BIOL ELECT</td>
<td>Biology Electives</td>
<td>7.5</td>
</tr>
<tr>
<td>GE PHIL–T/RS</td>
<td>PHIL–T/RS ELECT</td>
<td>Philosophy or T/RS Elective</td>
<td>3</td>
</tr>
<tr>
<td>GE HUMN</td>
<td>HUMN ELECT</td>
<td>Humanities Elective</td>
<td>3</td>
</tr>
<tr>
<td>GE ELECT</td>
<td>FREE ELECT</td>
<td>Free Electives</td>
<td>3</td>
</tr>
<tr>
<td>GE PHED</td>
<td>PHED ELECT</td>
<td>Physical Education</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td></td>
<td></td>
<td><strong>16.5</strong></td>
</tr>
<tr>
<td><strong>Total: 134 Credits</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

1. MATH 103 (taken before MATH 114) if indicated by Math Placement Test. Otherwise, credit may be taken in math, biology chemistry or physics.

---

research and development on modern society.
Three hours lecture.

**BIOL 105** 3 cr.

**E (Biodiversity)**
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** 3 cr.

**E (History of Life on Earth)**
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** 8 cr.

**E (Structure and Function of the Human Body)**
(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 141–142** 9 cr.

**E (General Biology)**
(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 relationship, including the problems of development, heredity and evolution. Three hours lecture, three hours lab each semester.

**BIOL 195** 3 cr.

**E (Tropical Biology (O,P)**
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 196** 3 cr.

**E (African Photo Safari (O,P)**
Natural history of Eastern Equatorial Africa with special emphasis on the delicate ecological balance between plant and animal communities. The savannah plains, tropical mountain forests, northern frontier and Great Rift Valley will be visited for first-hand study of the tremendous diversity of fauna and flora. Interession only.

**BIOL 201** 3 cr.

**E (Anatomy and Physiology)**
(Prerequisite: BIOL 101) An introduction to the biochemical, cellular, tissue and organ systems of selected body functions; structure in relation to function is emphasized. Three hours lecture.

**BIOL 202** 3 cr.

**E (The ABCs of Genetics)**
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** 3 cr.

**E (D) Environmental Issues in Latin America**
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** 3 cr.

**E (Human Sexuality and Reproduction)**
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** 3 cr.

**Introductory Medical Microbiology**
(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. Fall only.

**BIOL 241** 5 cr.

**Comparative Vertebrate Anatomy (O)**
(Prerequisites: BIOL 141–142; requires concurrent enrollment in lecture and lab) Structure and phylogeny of vertebrate organ-systems, emphasizing and comparing vertebrate structures in relation to their functions. Amphioxus, shark, necturus, and the feral pig are subjected to detailed laboratory study. Three hours lecture, four hours lab. Fall only.

**BIOL 243** 5 cr.

**The Human Body (O)**
(Prerequisites: BIOL 141–142; requires concurrent enrollment in lecture and lab) Structure and function of the principal organ systems in mammals, emphasizing the human condition. The cat is subjected to detailed study in the laboratory. Three hours lecture, four hours lab. Spring only.

**BIOL 245** 4.5 cr.

**W: lab only General Physiology (O)**
(Prerequisites: BIOL 141–142, 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** 5 cr.

**Microbiology (C,O,M)**
(Prerequisites: BIOL 141–142, 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** 3 cr.

**Animal Nutrition and Metabolism (C,O)**
(Prerequisites: BIOL 141–142, 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, bio-
logical 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 (G)  
(Prerequisites: BIOL 141-142) Mendelian, cyto-, population and evolutionary, and basic molecular genetics; emphasis on eucaryotes. Three hours lecture, three hours lab.

BIOL 263  
Genetic Engineering (G)  
(Prerequisites: BIOL 141-142; requires concurrent enrollment in lecture and lab) Study of the nature and function of the gene with emphasis on the experimental evidence which gave rise to the present concepts of genetic engineering. Strong emphasis is placed on recombinant DNA techniques in both lecture and laboratory. Three hours lecture, three hours lab.

BIOL 272  
Invertebrate Biology (O,P)  
(Prerequisites: BIOL 141-142; 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 (P)  
(Prerequisites: BIOL 141-142) 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 295  
(ED) Philippines Organisms and Ecosystems  
This course focuses on field studies of abiotic factors, flora and fauna, interrelationships and indigenous cultures in different tropical eco-systems 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. Intercession only.

BIOL 342  
Comparative Biomechanics  
(Prerequisites: BIOL 241, 243, 245, 272, 273, 345, 349 or 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 (C,O,M)  
(Prerequisite: BIOL 250 strongly recommended for 344 lecture, required for 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 (P,O)  
(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 (C,O)  
(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 (O)  
(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 (C,O)  
(Prerequisite: BIOL 245, or 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. (Also listed as NEUR 348.)

BIOL 349  
Plant Physiology (C,O,P)  
(Prerequisite: BIOL 141 or 101 or permission of instructor) Functional anatomy and physiology of plants, including structure, photosynthesis, respiration, mineral nutrition, water relations, productivity, growth and differentiation, transport, stress physiology, and energy flow. Three hours lecture, three hours lab. Lab is writing-intensive (W). Spring, odd years.

BIOL 350  
(W) Cellular Biology (C,M)  
(Prerequisites: BIOL 141-142; 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. Three hours lecture, three hours lab. Lab fulfills a writing-intensive (W) requirement.

BIOL 351  
Developmental Biology (C,O,M)  
(Prerequisites: BIOL 141-142; 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 (C)  
(Prerequisites: BIOL 141-142; 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  
(Prerequisites: CHEM 232-233, BIOL 352) 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 358  
Cellular and Molecular Neurobiology (C,M)  
(Prerequisites: BIOL 141-142) 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 signalling, cell-to-cell communication, glial cell function, and neural growth and development. Three hours lecture. (Also listed as NEUR 358.)

BIOL 361  
Molecular Biology I (M,G)  
(Prerequisites: BIOL 141-142, CHEM 232; co-requisite: CHEM 235; requires concurrent enrollment in lecture and lab) Structure and function of prokaryotic cells from a molecular viewpoint. Study of biomacromolecule structure and function; bacterial DNA replication, transcription, translation and how these processes are regulated. Three hours lecture, three hours lab. Spring only.

BIOL 362  
(W) Molecular Biology II (M,G)  
(Prerequisites: BIOL 361 or CHEM 350) 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. Three hours lecture, three hours lab optional. Fall only. Optional laboratory fulfills a writing-intensive (W) requirement.
BIOL 364 5 cr.
Virology (M)
(Prerequisites: BIOL 141-142, CHEM 232-233)
A detailed survey of viruses important to animals and plants, including structure, replication, pathogenicity and diagnostic techniques. Strong emphasis is placed on the molecular biology of viruses in both lecture and lab. Three hours lecture, three hours lab. Fall only.

BIOL 370 4.5 cr.
(W) Animal Behavior (PO)
(Prerequisites: BIOL 141-142) Classification of behavior types, development, functional advantages and evolution of behavior, and social and physiological aspects studied in lower and higher organisms. Three hours lecture, two hours lab. Spring only. Lab fulfills a writing-intensive (W) requirement.

BIOL 371 5 cr.
Ecology (P)
(Prerequisites: BIOL 141-142) 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. Fall only.

BIOL 374 5 cr.
(W: lab only) Vertebrate Biology (PO)
(Prerequisites: BIOL 141-142) This course presents an overview of the vertebrates, placing vertebrate form and function within an ecological and evolutionary context. Much of the course is concerned with vertebrate systematics, factors governing distribution, vertebrate interactions with both biotic and abiotic components of their environment as well as conservation and management issues. Three hours lecture, three hours lab. Spring only. Lab fulfills a writing-intensive (W) requirement.

BIOL 375 3 cr.
Evolution (G,P)
(Prerequisites: BIOL 141-142) 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 3 cr.
Biostatistics
(Prerequisite: MATH 103) 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 2-4 cr.
Special Topics in Biology
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 393-394 Variable Credit
Undergraduate Research
(Prerequisite: 12 credits in Biology) Individual problems for advanced students with sufficient background in biological and physical sciences.

BIOL 444 3 cr.
Sensory Biology (C,O)
(Prerequisites: BIOL 245 and completion of or concurrent enrollment in PHYS 121/141) 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. (Also listed as NEUR 444.)

BIOL 445 3 cr.
Mammalian Physiology (C,O)
(Prerequisites: BIOL 245, CHEM 232-233) Molecular, cellular, and tissue aspects of selected organ systems not normally covered in General Physiology, including calcium and skeletal homeostatic systems, integumentary system, gastrointestinal system, and aspects of nervous, endocrine, reproductive, and lymphatic systems. Three hours lecture.

BIOL 446 3 cr.
Cardiovascular Physiology (O)
(Prerequisites: BIOL 245, PHYS 120 or 140) 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 450 5 cr.
Electron Microscopy (C)
(Prerequisites: BIOL 141-142; requires concurrent enrollment in lecture and lab) Introduction to the mechanics of the electron microscope with emphasis on standard laboratory techniques, including preparation of materials, sectioning, viewing and photographic analysis. One hour lecture, six hours lab.

BIOL 471 3 cr.
Applied Ecology (P)
(Prerequisite: BIOL 371) The application of ecological principles and concepts to environmental problems, including consideration of their origins, effects on living systems, and potential solutions. Consideration of such issues as biodiversity, habitat degradation and loss, conservation biology, ecosystem management, wildlife ecology, agroecology, pollution, and global climate change. Three hours lecture.

BIOL 472 3 cr.
Systems Ecology (P)
(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. Spring, even years.

BIOL 473 5 cr.
Estuarine Ecology (O,P)
(Prerequisites: BIOL 141 or 101 or permission of instructor) 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 Cocolie, Louisiana. Three hours lecture, three hours lab. Spring, even years.
Minor in Chemistry

The minor in Chemistry includes Organic Chemistry (6 credits), Physical Chemistry (6 credits), and a chemistry laboratory course (3 credits).

Biochemistry

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.

Minor in Biochemistry

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-Business

The Chemistry-Business major combines theoretical and technical instruction in chemistry with management training in business. Graduates of this program will be concerned with the management of business, and the problems in science-related industries. Three hours lecture.

Forensic Chemistry

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.

Medical Technology

The Medical Technology degree program, under the direction of Dr. Trudy Dickneider, 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. See affiliations at the end of this catalog.

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.

Course Descriptions

In cases where a student withdraws from a chemistry lecture course, the student must also withdraw from the corresponding laboratory course unless a written waiver is provided by the department.

C/CJ 200 3 cr.

Forensic Science

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.

CHEM 100 3 cr.

(E) Elements of Chemistry

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.
Chemistry Curriculum

<table>
<thead>
<tr>
<th>Department and Number</th>
<th>Descriptive Title of Course</th>
<th>Fall Cr.</th>
<th>Spr. Cr.</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Year</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAJOR (GE NSCI)</td>
<td>CHEM 112-113</td>
<td>4.5</td>
<td>4.5</td>
</tr>
<tr>
<td>GE WRTG-SPC</td>
<td>WRTG 107–COMM 100</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE C/L</td>
<td>C/L 102</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE T/R–PHIL</td>
<td>T/R 121–PHIL 120</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE HUMN</td>
<td>HUMN ELECT</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>GE FSEM</td>
<td>INTD 100</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>18.5</td>
<td>17.5</td>
</tr>
<tr>
<td>Second Year</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAJOR</td>
<td>CHEM 232-233</td>
<td>4.5</td>
<td>4.5</td>
</tr>
<tr>
<td>GE CHEM 240</td>
<td>Inorganic Chemistry</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE PHYS 140-141</td>
<td>Elements of Physics</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>GE PHIL-T/R</td>
<td>PHIL 210–T/R 122</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE ELECT</td>
<td>CPMS 134</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE PHED</td>
<td>PHED ELECT</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>16.5</td>
<td>17.5</td>
</tr>
<tr>
<td>Third Year</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAJOR</td>
<td>CHEM 350</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>MAJOR</td>
<td>CHEM 370</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>MAJOR</td>
<td>CHEM 362–363</td>
<td>4.5</td>
<td>4.5</td>
</tr>
<tr>
<td>MAJOR</td>
<td>CHEM 390–391</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>GE HUMN</td>
<td>HUMN ELECT</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE S/BH</td>
<td>S/BH ELECT</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE PHED</td>
<td>PHED ELECT</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>17.5</td>
<td>17.5</td>
</tr>
<tr>
<td>Fourth Year</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAJOR</td>
<td>CHEM 440–440L</td>
<td>3</td>
<td>1.5</td>
</tr>
<tr>
<td>MAJOR</td>
<td>CHEM 493–494</td>
<td>1.5</td>
<td>1.5</td>
</tr>
<tr>
<td>MAJOR</td>
<td>CHEM ELECT</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE PHIL-T/R</td>
<td>PHIL-T/R ELECT</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE HUMN</td>
<td>HUMN ELECT</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE ELECT</td>
<td>FREE ELECT</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td></td>
<td>13.5</td>
<td>12.5</td>
</tr>
<tr>
<td>TOTAL: 130.5 CREDITS</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**CHEM 240 Inorganic Chemistry**
- **(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 230 Industrial Chemistry**
- 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 300 Organic Chemistry III**
- **(Prerequisites: CHEM 232-233)** A continuation of Chemistry 232-233, emphasizing the study of the major types of organic mechanisms. Two hours lecture.

Biochemistry Research Track Curriculum

<table>
<thead>
<tr>
<th>Department and Number</th>
<th>Descriptive Title of Course</th>
<th>Fall Cr.</th>
<th>Spr. Cr.</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Year</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAJOR (GE NSCI)</td>
<td>CHEM 112-113</td>
<td>4.5</td>
<td>4.5</td>
</tr>
<tr>
<td>COGNATE (GE QUAN)</td>
<td>MATH 114</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>GE WRTG-SPC</td>
<td>WRTG 107–COMM 100</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE C/L</td>
<td>C/L 102</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE T/R–PHIL</td>
<td>T/R 121–PHIL 120</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE HUMN</td>
<td>HUMN ELECT</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>GE PHED</td>
<td>PHED ELECT</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>17</td>
<td>16</td>
</tr>
<tr>
<td>Second Year</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAJOR</td>
<td>CHEM 232–233</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>MAJOR</td>
<td>CHEM 240</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>COGNATE</td>
<td>PHYS 120–121</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>GE ELECT</td>
<td>CPMS 134</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE T/R</td>
<td>T/R 121</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE PHIL</td>
<td>PHIL 120</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE HUMN</td>
<td>HUMN ELECT</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE PHED</td>
<td>PHED ELECT</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>0.5</td>
<td>0.5</td>
</tr>
<tr>
<td>Third Year</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAJOR</td>
<td>CHEM 330</td>
<td>3.5</td>
<td>3.5</td>
</tr>
<tr>
<td>MAJOR</td>
<td>CHEM 370</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>MAJOR</td>
<td>CHEM 360–361</td>
<td>4.5</td>
<td>4.5</td>
</tr>
<tr>
<td>MAJOR</td>
<td>CHEM 390–391</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>COGNATE</td>
<td>COGNATE ELECT</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE T/R</td>
<td>T/R 122</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE PHIL</td>
<td>PHIL 210</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE S/BH</td>
<td>S/BH ELECT</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE PHED</td>
<td>PHED ELECT</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>18</td>
<td>17.5</td>
</tr>
<tr>
<td>Fourth Year</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAJOR</td>
<td>CHEM 450–451</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>MAJOR</td>
<td>CHEM 450L</td>
<td>1.5</td>
<td>1.5</td>
</tr>
<tr>
<td>MAJOR</td>
<td>CHEM 493–494</td>
<td>1.5</td>
<td>1.5</td>
</tr>
<tr>
<td>MAJOR</td>
<td>CHEM ELECT</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE HUMN</td>
<td>HUMN ELECT</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE ELECT</td>
<td>COGNATE ELECT</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE ELECT</td>
<td>FREE ELECT</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>12</td>
<td>13.5</td>
</tr>
<tr>
<td>TOTAL: 130 CREDITS</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**CHEM 330 Organic Chemistry III**
- **(Prerequisites: CHEM 232-233)** A continuation of Chemistry 232-233, emphasizing the study of the major types of organic mechanisms. Two hours lecture.

**CHEM 330L Organic Chemistry III**
- **(Lecture is required as pre- or co-requisite)** Experiments involve advanced techniques in synthesis and characterization of organic compounds. Six hours laboratory for Chemistry majors and three hours laboratory for Biochemistry majors.
Environmental Chemistry (Prerequisites: CHEM 232-233) A study of chemicals in the environment including their origin, transport, reactions, and toxicity in soil, water, air and living systems.

CHEM 342 3 cr.
Environmental Toxicology (Prerequisites: CHEM 232-233, BIOL 141-142) 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).

Biochemistry Pre-professional Track Curriculum

<table>
<thead>
<tr>
<th>First Year</th>
<th>Department and Number</th>
<th>Descriptive Title of Course</th>
<th>Fall Cr.</th>
<th>Spr. Cr.</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAJOR (GE NSCI)</td>
<td>CHEM 112-113</td>
<td>General Analytical Chem. I-II</td>
<td>4.5</td>
<td>4.5</td>
</tr>
<tr>
<td>Cognate</td>
<td>BIOL 141-142</td>
<td>General Biology I-II</td>
<td>4.5</td>
<td>4.5</td>
</tr>
<tr>
<td>COGNATE (GE QUAN)</td>
<td>MATH 103/114</td>
<td>Pre-Calculus–Analysis I</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>GE WRTG</td>
<td>WRTG 107</td>
<td>Composition</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE C/IL</td>
<td>C/IL 102</td>
<td>Computing and Information Literacy</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE FSEM</td>
<td>INTD 100</td>
<td>Freshman Seminar</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>GE PHED</td>
<td>PHED ELECT</td>
<td>Physical Education</td>
<td>17.5</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Second Year</th>
<th>Department and Number</th>
<th>Descriptive Title of Course</th>
<th>Fall Cr.</th>
<th>Spr. Cr.</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAJOR</td>
<td>CHEM 232-233</td>
<td>Organic Chemistry I-II</td>
<td>4.5</td>
<td>4.5</td>
</tr>
<tr>
<td>COGNATE</td>
<td>PHYS 120-121</td>
<td>General Physics I-II</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>GE SPCH</td>
<td>COMM 100</td>
<td>Public Speaking</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE T/RS</td>
<td>T/RS 121</td>
<td>Theology I</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE PHIL</td>
<td>PHIL 120</td>
<td>Introduction to Philosophy</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE HUMN</td>
<td>HUMN ELECT</td>
<td>Humanities Electives</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE S/BH</td>
<td>S/BH ELECT</td>
<td>Social/Behavioral Elective</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE PHED</td>
<td>PHED ELECT</td>
<td>Physical Education</td>
<td>0.5</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Third Year</th>
<th>Department and Number</th>
<th>Descriptive Title of Course</th>
<th>Fall Cr.</th>
<th>Spr. Cr.</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAJOR</td>
<td>CHEM 360</td>
<td>Biophysical Chemistry</td>
<td>4.5</td>
<td></td>
</tr>
<tr>
<td>MAJOR</td>
<td>CHEM 370</td>
<td>Instrumental Analysis</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>MAJOR</td>
<td>CHEM 450-451</td>
<td>Biochemistry I-II</td>
<td>4.5</td>
<td></td>
</tr>
<tr>
<td>MAJOR</td>
<td>CHEM 390</td>
<td>Chemistry Literature</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>GE T/RS</td>
<td>T/RS 122</td>
<td>Theology II</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE PHIL</td>
<td>PHIL 210</td>
<td>Ethics</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE S/BH</td>
<td>S/BH ELECT</td>
<td>Social/Behavioral Elective</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE ELECT</td>
<td>FREE ELECT</td>
<td>Free Elective</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE PHED</td>
<td>PHED ELECT</td>
<td>Physical Education</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Fourth Year</th>
<th>Department and Number</th>
<th>Descriptive Title of Course</th>
<th>Fall Cr.</th>
<th>Spr. Cr.</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAJOR</td>
<td>CHEM ELECT</td>
<td>Adv. Topics–Biochemistry</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MAJOR/Cognate</td>
<td>CHEM/BIO ELECT</td>
<td>Chem or Bio Elective</td>
<td>3-5</td>
<td></td>
</tr>
<tr>
<td>COGNATE</td>
<td>COGNATE ELECT</td>
<td>Biology Elective</td>
<td>3-5</td>
<td></td>
</tr>
<tr>
<td>GE PHIL</td>
<td>PHIL 120</td>
<td>Introduction to Philosophy</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE HUMN</td>
<td>HUMN ELECT</td>
<td>Humanities Electives</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE ELECT</td>
<td>FREE ELECT</td>
<td>Free Electives</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>

| TOTAL | 131-137 CREDITS |

1. Senior year must contain at least 2 credits of laboratory or research.
2. Advanced biology courses are those courses which the Biology Department designates in the cellular, molecular or genetics areas.

Chemistry-Business Curriculum

<table>
<thead>
<tr>
<th>First Year</th>
<th>Department and Number</th>
<th>Descriptive Title of Course</th>
<th>Fall Cr.</th>
<th>Spr. Cr.</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAJOR (GE NSCI)</td>
<td>CHEM 112-113</td>
<td>General Analytical Chem. I-II</td>
<td>4.5</td>
<td>4.5</td>
</tr>
<tr>
<td>COGNATE (GE QUAN)</td>
<td>MATH 103-114 or 114-221</td>
<td>Pre-Calculus–Analysis I OR Analysis I-II</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>COGNATE (GE S/BH)</td>
<td>ECO 153-154</td>
<td>Micro–Macro Economics</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE WRTG-SPCH</td>
<td>WRTG 107–COMM 100</td>
<td>Composition–Public Speaking</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE C/IL</td>
<td>C/IL 102</td>
<td>Computing and Information Literacy</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE FSEM</td>
<td>INTD 100</td>
<td>Freshman Seminar</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Second Year</th>
<th>Department and Number</th>
<th>Descriptive Title of Course</th>
<th>Fall Cr.</th>
<th>Spr. Cr.</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAJOR</td>
<td>CHEM 232–233</td>
<td>Organic Chemistry I-II</td>
<td>4.5</td>
<td></td>
</tr>
<tr>
<td>MAJOR</td>
<td>ACC 253-254</td>
<td>Financial–Managerial Acctg.</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE ELECT</td>
<td>ELECT</td>
<td>Free Elective</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE T/RS</td>
<td>T/RS 121–122</td>
<td>Theology I-II</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE PHIL</td>
<td>PHIL 120</td>
<td>Introduction to Philosophy</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE HUMN</td>
<td>HUMN ELECT</td>
<td>Humanities Electives</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE PHED</td>
<td>PHED ELECT</td>
<td>Physical Education</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Third Year</th>
<th>Department and Number</th>
<th>Descriptive Title of Course</th>
<th>Fall Cr.</th>
<th>Spr. Cr.</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAJOR</td>
<td>MGT 351–352</td>
<td>Principles of Management I–II</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MAJOR</td>
<td>MKT 351</td>
<td>Intro. to Marketing</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MAJOR</td>
<td>FIN 351</td>
<td>Intro. to Finance</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>COGNATE</td>
<td>CMPS 330</td>
<td>Information Systems</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>COGNATE</td>
<td>MATH 204</td>
<td>Special Topics in Statistics</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE ELECT</td>
<td>CHEM ELECT</td>
<td>Chem. (210 level or above)</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE PHIL-T/RS</td>
<td>PHIL 210–ELECT</td>
<td>Ethics–Philosophy or T/RS Elective</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE PHED</td>
<td>PHED ELECT</td>
<td>Physical Education</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Fourth Year</th>
<th>Department and Number</th>
<th>Descriptive Title of Course</th>
<th>Fall Cr.</th>
<th>Spr. Cr.</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAJOR</td>
<td>MGT 251</td>
<td>Legal Environmental of Business</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MAJOR</td>
<td>COGNATE</td>
<td>COGNATE ELECT</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE HUMN</td>
<td>HUMN ELECT</td>
<td>Humanities Electives</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE ELECT</td>
<td>FREE ELECT</td>
<td>Free Electives</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>

| TOTAL | 130 CREDITS |

1. The department recommends foreign language.

CHEM 350 3 cr.
General Biochemistry I
(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 3 cr.
General Biochemistry II
(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. Three hours lec- ture. Successful completion of CHEM 351 precludes credit for CHEM 451.

CHEM 352 3 cr.
Chemical Toxicology
(Prerequisite: CHEM 233) 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 360 3 cr.
Biophysical Chemistry I
(Prerequisites: CHEM 232-233) An introduction to the application of physical-chemical principles to biological problems. This involves aqueous solutions, colloidal chemistry, thermodynamics,
Chemistry-Computers Curriculum

<table>
<thead>
<tr>
<th>Department and Number</th>
<th>Descriptive Title of Course</th>
<th>Fall Cr.</th>
<th>Spr. Cr.</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Year</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAJOR (GE NSCI)</td>
<td>CHEM 112-113 General Analytical Chem. I-II</td>
<td>4.5</td>
<td>4.5</td>
</tr>
<tr>
<td>MAJOR</td>
<td>CMPS 134-144 Computer Science I-II</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>COGNATE (GE QUAN)</td>
<td>MATH 142-114 Discrete Structures-Analyis I</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>GE WRTG-SFCH</td>
<td>WRTG 107-COMM 100</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GE C/IL</td>
<td>C/IL 102 Computing and Information Literacy</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE T/RS</td>
<td>T/RS 121 Theology I</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>GE FSEM</td>
<td>INTD 100 Freshman Seminar</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>18.5</td>
<td>18.5</td>
</tr>
<tr>
<td>Second Year</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAJOR</td>
<td>CHEM 252–253 Organic Chemistry I-II</td>
<td>4.5</td>
<td>4.5</td>
</tr>
<tr>
<td>MAJOR</td>
<td>CMPS 240–250 Data Struct.–Mach. Org.</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>COGNATE</td>
<td>MATH 221–222 Analysis II–III</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>COGNATE</td>
<td>PHYS 140-141 Elements of Physics</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>GE PHIL-T/RS</td>
<td>PHIL 120–T/RS 122 Intro. to Philosophy–Theology II</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>18.5</td>
<td>18.5</td>
</tr>
<tr>
<td>Third Year</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAJOR</td>
<td>CHEM 370 Instrumental Analysis</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>MAJOR</td>
<td>CHEM 362–363 Physical Chemistry I-II</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>MAJOR</td>
<td>CHEM 390–391 Chemistry Literature–Seminar</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>MAJOR</td>
<td>CMPS 352 Operating Systems</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>COGNATE</td>
<td>MATH 341 Differential Equations</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>GE PHIL</td>
<td>PHIL 210 Ethics</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE HUMN</td>
<td>HUMN ELECT Humanities Electives</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE S/BH</td>
<td>S/BH ELECT Social/Behavioral Elective</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>PHED</td>
<td>PHED ELECT Physical Education</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>14.5</td>
<td>13.5</td>
</tr>
<tr>
<td>Fourth Year</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAJOR</td>
<td>CHEM 493–494 Undergraduate Research</td>
<td>1.5</td>
<td>1.5</td>
</tr>
<tr>
<td>GE ELECT</td>
<td>CHEM or CMPS ELECT Chem.-Comp. Elective, 300 level or above</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE PHIL-T/RS</td>
<td>PHIL-T/RS Elective</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE HUMN</td>
<td>HUMN ELECT Humanities Electives</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE S/BH</td>
<td>S/BH ELECT Social/Behavioral Elective</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE ELECT</td>
<td>FREE ELECT Free Elective</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE PHED</td>
<td>PHED ELECT Physical Education</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>14.5</td>
<td>13.5</td>
</tr>
<tr>
<td>TOTAL: 136 CREDITS</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Chemistry-Computers Curriculum (Department and Number) Descriptive Title of Course

CHEM 362-363 6 cr. Physical Chemistry I-II (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-363L 3 cr. (W) Physical Chemistry Laboratory (Lecture is required as pre- or co-requisite) Experiments demonstrate chemical-physical properties of matter and reactions. Three hours laboratory each semester.

CHEM 370 2 cr. Instrumental Analysis (Prerequisites: CHEM 360 or 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 3 cr. Instrumental Analysis Laboratory (Lecture is required as pre- or co-requisite) Experiments involve manipulation of modern chemical instrumentation and techniques to quantitative analysis. Six hours laboratory.

CHEM 384 2-4 cr. Special Topics in Chemistry 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.

FORENSIC CHEMISTRY CURRICULUM

<table>
<thead>
<tr>
<th>Department and Number</th>
<th>Descriptive Title of Course</th>
<th>Fall Cr.</th>
<th>Spr. Cr.</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Year</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAJOR</td>
<td>CHEM 112-113 General Analytical Chem. I-II</td>
<td>4.5</td>
<td>4.5</td>
</tr>
<tr>
<td>COGNATE</td>
<td>CJ 110–S/CJ 213 Intro to Crim. Just.–Criminology</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>COGNATE</td>
<td>BIOL 141–142 General Biology I-II</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>GE C/IL</td>
<td>C/IL 102 Computing and Information Literacy</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE WRTG-SFCH</td>
<td>WRTG 107-COMM 100</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GE FSEM</td>
<td>INTD 100 Freshman Seminar</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>16</td>
<td>18</td>
</tr>
<tr>
<td>Second Year</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAJOR</td>
<td>CHEM 232–233 Organic Chemistry I-II</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>COGNATE</td>
<td>SOC 110 Intro to Sociology</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>COGNATE</td>
<td>S/CJ 237 Investigative Process</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>COGNATE</td>
<td>PHYS 120–121 General Physics I–II</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>COGNATE</td>
<td>MATH 114 Analysis I</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>GE PHIL</td>
<td>PHIL 120 Intro. to Philosophy</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE PHED</td>
<td>PHED ELECT Physical Education</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>15.5</td>
<td>15.5</td>
</tr>
<tr>
<td>Third Year</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAJOR</td>
<td>CHEM 240 Inorganic Chemistry</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MAJOR</td>
<td>CHEM 350 General Biochemistry</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MAJOR</td>
<td>CHEM 360 (362) Bio. P-Chem. I (P-Chem I)</td>
<td>4.5</td>
<td></td>
</tr>
<tr>
<td>MAJOR</td>
<td>CHEM 370 Instrumental Analysis</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>MAJOR</td>
<td>CHEM ELECT Chem. Elective</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>COGNATE</td>
<td>S/CJ 310 Criminal Justice Process</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>COGNATE</td>
<td>S/CJ 312 Criminal Law</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>COGNATE</td>
<td>S/CJ 316 Principles of Evidence</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE T/RS</td>
<td>T/RS 121–122 Theology I–II</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE PHED</td>
<td>PHED ELECT Physical Education</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>17.5</td>
<td>18</td>
</tr>
<tr>
<td>Fourth Year</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAJOR</td>
<td>CHEM 470 Forensic Chemistry</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>MAJOR</td>
<td>CHEM ELECT Chemistry Elective</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE PHIL</td>
<td>PHIL 210 Ethics</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE PHIL-T/RS</td>
<td>PHIL-T/RS Elective</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE HUMN</td>
<td>HUMN ELECT Humanities Elective</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>GE FREE</td>
<td>FREE ELECT Free Elective</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>17</td>
<td>15</td>
</tr>
<tr>
<td>TOTAL: 132.5 CREDITS</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
CHEM 493-494 3 cr. (W) Undergraduate Research (Prerequisites: CHEM 233, 360 or 362, 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.

COMMUNICATION

Faculty
Edward F. Warner, M.S., Chair
William B. Anderson, Ph.D.
Jan W. Kelly, Ph.D.
Rebecca L. Mikessell, Ph.D.
Kimberly A. Pavlick, M.S.
Matthew M. Reavy, Ph.D.
Robert P. Sadowski, Ph.D.
Roger D. Wallace, Ph.D.

Overview
The Department of Communication embraces the fields of advertising, broadcasting (radio and television), cable, film, journalism, public relations and speech. The Communication degree program prepares students for professional careers as well as advanced studies. Students who major in Communication become knowledgeable about the subject matter from both humanistic and scientific perspectives. They also have opportunities to acquire on-the-job experiences through internships. In addition, courses are designed to serve students in other departments of the University by developing their oral and written communication skills.
**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 five core courses required for all Communication majors:

- COMM 115: Writing for Communication
- COMM 210: Logical and Rhetorical Analysis
- COMM 316: Communication Ethics
- COMM 317: Introduction to Communication Theory
- 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 three required courses:

**Advertising**
- COMM 225: Advertising
- COMM 334: Advertising Decision Making
- COMM 460: Advertising Competition

**Broadcasting**
- COMM 221/222: Radio/TV Production
- COMM 334: Broadcast Programming
- COMM 480: TV Practicum

**Journalism**
- COMM 224: News Writing
- COMM 324: Computer-assisted Reporting
- COMM 328: News Editing

**Public Relations**
- COMM 226: Strategic Writing for Public Relations
- COMM 227: Contemporary Public Relations
- COMM 327: Cases in Strategic Public Relations

**Minor in Communication**

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:

- COMM 115: Writing for Communication
- Either COMM 210: Logical and Rhetorical Analysis or COMM 215: Introduction to Communication Theory
- COMM 316: Communication Ethics

**Course Descriptions**

**COMM 100: Public Speaking**
3 cr.
This is a performance class which emphasizes the theory, composition, delivery, and criticism of speeches. Successful completion of COMM 100 (with a grade of C or better) fulfills the speech skills requirement of the University.

**COMM 110: Interpersonal Communication**
3 cr.
An investigation and analysis of the process and nature of human communication and its interpersonal and interpersonal attributes.

**COMM 115: (W) Writing for Communication**
3 cr.
(W) Writing for Communication (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.

**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 210: (W) Logical and Rhetorical Analysis**
3 cr.
(W) Logical and Rhetorical Analysis
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.

**Communication Curriculum**

<table>
<thead>
<tr>
<th>Department and Number</th>
<th>Descriptive Course Title</th>
<th>Fall Cr.</th>
<th>Spr. Cr.</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Year</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>COMM 115</td>
<td>Writing for Communication</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>COMM 210</td>
<td>Logical and Rhetorical Analysis or COMM 215: Introduction to Communication Theory</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>COMM 316</td>
<td>Communication Ethics</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>COMM 100</td>
<td>Public Speaking</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>COMM 110</td>
<td>Interpersonal Communication</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>COMM 115</td>
<td>(W) Writing for Communication</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>COMM 130</td>
<td>History of Electronic Media</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>COMM 210</td>
<td>(W) Logical and Rhetorical Analysis</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>COMM 215</td>
<td>Introduction to Communication Theory</td>
<td>3</td>
<td>3</td>
</tr>
</tbody>
</table>

**Second Year**

- COMM 210: Logical and Rhetorical Analysis
- COMM 215: Introduction to Communication Theory

**Third Year**

- COMM 316–ELECT: Communication Electives
- COMM 415: Senior Seminar

**Fourth Year**

- COMM 210: Logical and Rhetorical Analysis
- COMM 316: Communication Ethics

**TOTAL: 130 CREDITS**

**First Year**
- COMM 214: Small Group Communication
  - 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.

**Second Year**
- COMM 221: Radio Production
  - An examination of the dynamic industry roles of the radio producer/director. Areas to be studied include production theory and techniques which apply to station and program promotions, advertising, news, and music formats.

**Third Year**
- COMM 222: Television Production
  - 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.

**Fourth Year**
- COMM 223: Radio Journalism
  - (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 225 3 cr. Advertising 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 plan for local businesses.

COMM 226 3 cr. Strategic Writing for Public Relations Writing and editing of public relations and marketing communication materials such as press releases, speeches, direct mail, brochures, newsletter and Web sites. Writing and editing for electronic media and video news. Emphasis on integrated communications.

COMM 227 3 cr. Contemporary Public Relations 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 3 cr. (D) Intercultural Communication 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 nonverbal communication across cultures and co-cultures, persuasion, dialects, organization of verbal codes, and the structure of conversations.

COMM 229 3 cr. (D) Gender and Communication 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 232 3 cr. Film History This course traces the evolution of filmmaking from its earliest experimental stages to the feature film of today. The course concentrates on the American film industry, its audience impact as a mass medium, and the genres of films that have evolved. Selected screenings will reveal transitions and refinements that characterize this medium.

COMM 310 3 cr. Mass Communication Law (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 3 cr. Political Communication The study of rhetorical strategies used by the modern politician. Examination of American political rhetoric as well as rhetorical styles operating in foreign-policy activities.

COMM 312 3 cr. Organizational Communication The study of communication behaviors, patterns, and strategies in organizations. Topics include power and politics, organizational cultures, human resources, conflict management, and negotiation. Historical and contemporary theories of organizing are examined and critiqued from a communication perspective.

COMM 313 3 cr. Nonverbal Communication 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 3 cr. Legal Communication 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 316 3 cr. Communication Ethics (Formerly Responsibility in Communication) 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 responsibility to be aware of the public they serve. Different faculty may approach this course from various ethical/humanistic perspectives.

COMM 317 3 cr. Digital Audio and Video Production 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 3 cr. Multi-Media Presentations (Prerequisite: COMM 317) This course focuses on 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 3 cr. Sports Writing This course is designed to provide students with 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 3 cr. News Reporting This course is designed to introduce students to reporting for electronic and print media. Students learn how to obtain and analyze documents used in criminal/civil investigations, as well as how to develop and maintain contacts in news investigations.

COMM 322 3 cr. Advanced Television Production (Prerequisite: COMM 222) Building upon the foundation acquired in COMM 222, students pursue specialized projects in producing and directing programs for broadcast or cable distribution.

COMM 323 3 cr. Television Journalism (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 3 cr. (W) Computer-assisted Reporting (Prerequisite: COMM 224) Intensive training and practice in techniques of reporting and writing news stories and in covering public affairs. Familiarity with journalistic basics, style, and computer terminal operations required.

COMM 325 3 cr. Advertising Copywriting Students develop two separate creative campaign strategies for hypothetical clients of their own choosing. For these large-budget accounts, students must create copy for newspapers, magazines, broadcast, and direct mail, all with a consistent campaign theme.

COMM 326 3 cr. Political Advertising 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 3 cr. Cases in Strategic Public Relations (Prerequisite: COMM 227) Case studies focusing on the problems and challenges faced by a variety of organizations. Practical application of creative problem-solving, theory and research in actual organizations.


COMM 329 3 cr. Graphics Visual aspects of print media. Typography, printing presses, handling photos and other art layout and design, introduction to desktop publishing. Familiarity with journalism basics, style, and computer-terminal operations required.

COMM 330 3 cr. Advertising Decision Making (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
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 relationships, unions and contracts, community relations, audience analysis and measurement.

**COMM 332**
Documentary Film
This course traces the growth, development, and influence of American and foreign nonfiction films, particularly their various functions as propaganda, public service and promotion, education, entertainment, and art.

**COMM 334**
Broadcast Programming
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 380**
Advertising Practicum
(Prerequisite: COMM 225 or COMM 325) Students function as a full-service advertising agency which provides clients with a complete array of services ranging from campaign creation to implementation and evaluation.

**COMM 411**
Persuasion and Propaganda
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
(Prerequisite: 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
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 which may reflect their own pedagogical interests.

**COMM 425**
Cable Television
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
Comparative analysis of national and international multimedia systems throughout the world. Emphasis on their origin, development, and operation.

**COMM 427**
International Film
An investigation of the major contributions and movements of various nations in the development and evolution of film as a multi-national and global industry.

**COMM 432**
Film Theory and Criticism
Critical examination of the major theoretical and analytical explanations of film's effectiveness as an artistic form of communication. The work of classical, contemporary and experimental film scholars will be studied, and selected films depicting their observations will be screened. Film analysis and criticism projects will be designed by students.

**COMM 433**
Television Criticism
Analysis of radio and television programs and promotional strategies, including formats, scripts, talent, commercials, public-service announcements, positioning, ratings, and network-affiliate relationships.

**COMM 460**
Advertising Competition
(Prerequisites: COMM 225 and COMM 350) 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.

**COMM 480**
Television Practicum
(Prerequisites: COMM 222, COMM 322) Communication seniors undertake significant areas of study resulting in a broadcast-quality videotape or audiotape suitable for airing by commercial or non-commercial television stations, radio stations or cable systems.

**COMM 481**
Internship
(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. (Internship credits can only be used in the free elective area.)

**COMM 482**
Directed Independent Study
(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
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
(Prerequisites: COMM 215 and 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.

**COMPUTING SCIENCES**

**Faculty**
Richard M. Plishka, M.B.A., Chair
John Beidler, Ph.D.
Yaodong Bi, Ph.D.
Benjamin Bishop, Ph.D.
Paul M. Jackowitz, M.S.
Robert W. McCluskey, Ph.D.
James R. Sidbury, Ph.D.
Charles E. Taylor, M.B.A.

**Overview**
The Department of Computing Sciences offers undergraduate major programs in Computer Science and Computer Information Systems. Students with strong undergraduate records may be accepted and dually enrolled in the department's graduate program in Software Engineering through the Combined Baccalaureate/Master's Degree program. More information may be found on the Web at www.cs.scranton.edu.

Additionally, the department partners with the Departments of Communication and Physics/Electrical Engineering in offering the undergraduate major in Media and Information Technology.

**Computer Science**
One of the oldest in Pennsylvania, the program dates from 1970. It is accredited by the Computing Accreditation Commission of ABET, the recognized accrediting body for college and university programs in applied science, computing, engineering and technology.

The program focuses on the underlying concepts of computing with an emphasis on software engineering. Mastery of these concepts requires understanding of theory and substantial practice. The program is supplemented with courses in mathematics and the natural sciences and culminates in the Computer Projects course, in which students engage in a project in collaboration with a faculty advisor. The program prepares students for advanced study and wide-ranging professional careers in computing, including software development.

**Minor in Computer Science**
The student must take a minimum of 20 hours including MATH 142, CMPS 134,

Computer Information Systems

The program was established in 1987 to serve students interested in application of computing in business and management domains. It shares a core of courses with the Computer Science major program, and it is supplemented by courses offered by the Kania School of Management. The program includes a senior year Computer Projects course, in which students engage in an original project in collaboration with a faculty mentor. The program prepares students to be information systems professionals, capable of configuring and developing software applications. Graduates are qualified to pursue advanced degrees in computing or an M.B.A.

Minor in Computer Information Systems

The student must take a minimum of 18 credits including CMPS 134, 136 or 144, 330, 331 and two of MATH 142, CMPS 202 or 312, CMPS 240, 311, 340, 341, 344, 352, 356, 376 or 384. Students are encouraged to participate in an internship. The Computing Sciences department may be reached on the World Wide Web at www.cs.scranton.edu.

Combined Baccalaureate/Master’s Degree in Software Engineering

Qualified Computer Science and Computer Information Systems students may be able to earn both their baccalaureate and a Master of Science in Software Engineering, normally in a total of five years of study. Interested students are advised to contact the Software Engineering Program Director before their junior year.

Course Descriptions

CMPS 134

Computer Science I

An introduction to programming concepts and methodology using an appropriate 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 136

Computer Programming II

(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

(Prerequisites: CMPS 134, MATH 144) 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 202

Web Development

(Prerequisite: C/IL 102 or equivalent) A course that covers fundamental aspects of the development of personal, professional, and business resources using Web-development tools. Topics include creating Web pages using basic HTML; advanced HTML concepts; frames; JavaScript to enhance Web pages; forms; CGI (common gateway interface); Java classes. Emphasis is on client-side development although server-side issues are discussed. This is a technical course for students who do not necessarily have a technical background. May not be used as part of any major in the Computing Sciences department.

CMPS 240

Data Structures and Algorithms

(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.

Computer Science Curriculum

<table>
<thead>
<tr>
<th>Department and Number</th>
<th>Descriptive Title of Course</th>
<th>Fall Cr.</th>
<th>Spr. Cr.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CMPS 134-144</td>
<td>Computer Science I-II</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>CMPS 240</td>
<td>Analysis I</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GE WRTG-SPCH</td>
<td>WRTG 107-COMM 100</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GE C/IL</td>
<td>C/IL 102</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GE PHIL-T/RS</td>
<td>PHIL 120-T/RS 121</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GE HUMN</td>
<td>HUMN ELECT</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GE QUAN</td>
<td>MATH 142</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GE FSEM</td>
<td>INTD 100</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GE PHED</td>
<td>PHED ELECT</td>
<td>3</td>
<td>3</td>
</tr>
</tbody>
</table>

Second Year

MAJOR

CMPS 240-250

Data Structures–Machine Org.

GE MATH 211

Analysis II

GE NSCI

NSCI ELECT

Natural Science Elective

GE PHIL-T/RS

PHIL 210-T/RS 122

Ethics–Theology II

GE HUMN

HUMN ELECT

Humanities Elective

GE PHED

PHED ELECT

Physical Education

Total: 17-18

Third Year

MAJOR

CMPS 340-374


MAJOR

CMPS 340-CMPS ELECT

File Processing–Comp. Sci. Elective

MAJOR

CMPS 350-374


GE NSCI

NSCI ELECT

Applied Probability & Statistics

GE S/BH

S/BH ELECT

Social/Behavioral Elective

GE ELECT

FREE ELECT

Free Elective

Total: 15-15.5 17-17.5

Fourth Year

MAJOR

CMPS 490

Computer Projects

MAJOR

CMPS ELECT

Major Electives

GE NSCI

NSCI ELECT

Math or Natural Science Elective

GE PHIL

PHIL 214

Computers and Ethics

GE HUMN

HUMN ELECT

Humanities Electives

GE S/BH

S/BH ELECT

Social/Behavioral Elective

GE ELECT

FREE ELECT

Free Electives

Total: 15 15

TOTAL: 129-131 CREDITS

Abstract data types studied include stacks, queues, binary trees, n-ary trees, and graphs. Various presentation alternatives are analyzed and compared, trade-offs frequently encountered by software developers are discussed.

CMPS 250

Machine Organization and Assembly Language Programming

(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 hardware 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.

Note 1: Computer Science majors must complete at least 12 credits of science courses, including a two-semester sequence in a laboratory science for science or engineering majors. Qualifying sequences include PHYS 140-141, CHEM 112-113 and BIOL 141-142.

Note 2: Major electives must be chosen from CMPS 341, 354, 356, 358, 360, 362, 364, 370, 372, 376, 384, 393, 440 and 481.

Note 3: Either a mathematics course at the 300 level or above or a science course approved by the department.
Computer Information Systems Curriculum

<table>
<thead>
<tr>
<th>Department and Number</th>
<th>Descriptive Title of Course</th>
<th>Fall Cr.</th>
<th>Spn Cr.</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Year</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAJOR CMPS 134–144</td>
<td>Computer Science I–II</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>GE QUAN–COGNATE MATH 142–114</td>
<td>Discrete Structures–Analysis I</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>GE C/IL C/IL 102</td>
<td>Computing and Information Literacy</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE WRTG–SCH WRTG 107–COMM 100</td>
<td>Composition–Public Speaking</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE PHIL–T/RS PHIL 120–T/RS 121</td>
<td>Intro. to Philosophy–Theology I</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE HUMN HUMN ELECT</td>
<td>Humanities Elective</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE FSEM–PHED INTD 100–PHED ELECT</td>
<td>Freshman Seminar–Physical Education</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>17</td>
<td>18</td>
</tr>
<tr>
<td>Second Year</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAJOR CMPS 240–250</td>
<td>Data Structures–Machine Org.</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>COGNATE ACC 253–254</td>
<td>Financial &amp; Managerial Acc.</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE PHIL–T/RS PHIL 210–T/RS 122</td>
<td>Ethics–Theology II</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE HUMN HUMN ELECT</td>
<td>Humanities Elective</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE SOBH ECO 155–154</td>
<td>Prin. of Micro.–Macro. Economics</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE ELECT MATH 2044</td>
<td>Statistics</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE PHED PHED ELECT</td>
<td>Physical Education</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>16</td>
<td>16</td>
</tr>
<tr>
<td>Third Year</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAJOR CMPS 352–CMPS ELECT²</td>
<td>Operating Systems–Elective</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>MAJOR CMPS 340–341</td>
<td>File Processing–Database Systems</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>COGNATE MGT 351–352</td>
<td>Principles of Management I &amp; II</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>COGNATE MGT 251</td>
<td>Legal Environment of Business</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE NSCI NSCI ELECT</td>
<td>Natural Science Elective</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE ELECT FREE ELECT</td>
<td>Free Elective</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>16</td>
<td>18</td>
</tr>
<tr>
<td>Fourth Year</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAJOR CMPS 490–CMPS ELECT²</td>
<td>Computer Projects–Elective</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>COGNATE MKT 351</td>
<td>Intro. Marketing</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE HUMN HUMN ELECT</td>
<td>Humanities Electives</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE NSCI NSCI ELECT</td>
<td>Natural Science Elective</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE PHIL PHIL 214</td>
<td>Computers and Ethics</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE ELECT FREE ELECT</td>
<td>Free Electives</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>15</td>
<td>15</td>
</tr>
<tr>
<td>TOTAL: 131 CREDITS</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

¹ Or STAT 251.
² Elective courses in the Computer Information Systems major must be chosen from CMPS 260, 344, 350, 354, 356, 358, 360, 362, 364, 370, 372, 374, 376, 384, 393, 440 and 441.

CMPS 260 3 cr.
- **Theoretical Foundations of Computer Science** (Prerequisite: CMPS 240) An examination of the fundamental models and concepts of computation – automata, formal languages, and grammars – and how they are related. Chomsky-Turing thesis; recursive and recursively enumerable sets; unsolvable problems; complexity of algorithms; Chomsky hierarchy.

CMPS 311 3 cr.
- **Computer Networks and Security** (Prerequisite: CMPS 136 or 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, VPNs and encryption. May not be used to satisfy the requirements of the major. May not be taken by a student who has credit for CMPS 354.

CMPS 312 3 cr.
- **Web Technology** (Prerequisites: CMPS 102 or equivalent, COMM 329, CMPS 311) 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 CMPS 202 or 356.

CMPS 330 3 cr.
- (W) **Information Systems Analysis** (Prerequisite: CMPS 102/104 or CMPS 134) Introduction to concepts and practices of information processing. Computer system requirements and techniques in providing appropriate decision-making information to management.

CMPS 331 3 cr.
- **Information Systems Development** (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 4 cr.
- **File Processing** (Prerequisites: CMPS 144 required, CMPS 240 recommended.) File structures concepts and file processing applications using an appropriate programming language (currently COBOL). Topics include file maintenance and storage management; file searching, sorting, and merging; sequential processing; index structures; B-trees; hash tables; indexed sequential files; database concepts.

CMPS 341 3 cr.
- **Database Systems** (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 3 cr.
- **Programming Languages** (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 3 cr.
- **Computer Architecture** (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 micro-programmed 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 3 cr.
- **Operating Systems** (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 3 cr.
- **Data Communications and Networks** (Prerequisite: CMPS 352) A study of data communication and networking concepts, including distributed-system architectures, electronic interfaces, data-communication, data link protocols, terminal networks, computer communication, public-data networks, and local-area networks.

CMPS 356 3 cr.
- **Web Programming** (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 Java, web machine concepts, Java/JavaScript similarities and differences, server-side programming, GIF animations, Web programming resources and environments.

CMPS 358 3 cr.
- **Real-Time Systems** (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, interprocess communication, process synchronization and interprocess communication, manipulating process priority, concurrent programming, exception handling, software safety, reliability, and fault tolerance.
CMPS 360 3 cr.
Analysis of Algorithms
(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 3 cr.
Numerical Analysis

CMPS 364 3 cr.
Theory of Computation
(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 3 cr.
Computer Graphics
(Prerequisite: CMPS 240) 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 3 cr.
Artificial Intelligence
(Prerequisite: CMPS 240) Problem solving using expert systems, heuristic programming techniques, tree-speed-up techniques, and learning mechanisms.

CMPS 374 3 cr.
(W) Fundamentals of Software Engineering
(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 3 cr.
Rapid Prototyping
(Prerequisite: CMPS 136 or CMPS 144) Some common applications using a database with a visual interface (perhaps Web based) can be successfully created 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 3 cr.
Special Topics
(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 3 cr.
Computer Research
(Departmental permission required) 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 440 3 cr.
Compiler Design
(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 3 cr.
Computer Internship
(Departmental permission required) An extensive job experience in computing which carries academic credit. Prior approval is required and information is available on the department Web site.

CMPS 490 3 cr.
(W) Computer Projects
(Prerequisite: senior standing, departmental permission required) In this course students prepare and present individual computer projects to be evaluated by the instructor and their fellow students.

CRIMINAL JUSTICE

Harry R. Dammes, Ph.D., Chair
See Sociology for faculty listing.

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 correction and rehabilitation: parole, prisons, juvenile justice, etc.
3. To provide students with academic preparation for advanced study in law, criminalology, public administration and related fields. The Criminal Justice major is administered by the Department of Sociology/Criminal Justice. An advisory board of community leaders working in the field of criminal justice has been established to work with University students, faculty and administrators.

Minor in Criminal Justice
The minor in Criminal Justice requires 18 credits. There are three required courses: SOC 110: Introduction to Sociology; CJ 110: Introduction to Criminal Justice and S/CJ 213: Criminology. The following elective courses are strongly recommended by the department in the Criminal Justice sequence: S/CJ 212: Criminological Research, S/CJ 214: Juvenile Delinquency, S/CJ 210: Law and Society, and CJ 312: Criminal Law.

Course Descriptions

CJ 110
(S) Introduction to Criminal Justice
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.

S/CJ 210
(S) Law and Society
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 212
3 cr.
(W) Research Methods for the Social Sciences
Survey of methods and techniques for achieving interpretable results in research in the criminal-justice field; research design; data collection.

S/CJ 213
3 cr.
(S) Criminology
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
3 cr.
(S) Juvenile Delinquency
Nature and extent of delinquency; competing explanatory models and theories; evaluation of prevention, control, and treatment programs.

S/CJ 215
3 cr.
(Q) Statistics for the Social Sciences
An introduction to the techniques used by social scientists to analyze 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
3 cr.
(S) The American Court System
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 220
3 cr.
Penology: The American Correctional System
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
3 cr.
Community-Based Corrections
Examination of community treatment in the correctional process; contemporary usage of pre-sentence investigation, selection, supervision, release of probationers and parolees.
### Criminal Justice Curriculum

<table>
<thead>
<tr>
<th>Department and Number</th>
<th>Descriptive Title of Course</th>
<th>Fall Cr.</th>
<th>Spr. Cr.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>First Year</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAJOR</td>
<td>CJ 110–S/CJ 213 Intro to Crim. Just.–Criminology</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>OCNAGTE</td>
<td>SOC 110 Intro to Sociology</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE/C/I</td>
<td>C/IL 102 Computing and Information Literacy</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE WRTG–S/PCH</td>
<td>WRTG 107–COMM 100 Compostion–Public Speaking</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE PHIL</td>
<td>PHIL 120 Introduction to Philosophy</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE PHIL</td>
<td>T/R/S 121 Theology I</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE HUMN</td>
<td>HUMN ELECT Humanities Electives</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE FSEM</td>
<td>INTD 100 Freshman Seminar</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>GE PHED</td>
<td>PHED ELECT Physical Education</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td><strong>Second Year</strong></td>
<td></td>
<td>16</td>
<td>16</td>
</tr>
<tr>
<td>MAJOR</td>
<td>S/CJ 210 Law and Society</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MAJOR</td>
<td>S/CJ 222 Criminological Research</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE QUAN</td>
<td>S/CJ 215 Statistics for the Social Sciences</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE S/BH</td>
<td>PSYC 110 Fundamentals of Psychology</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE HUMN</td>
<td>HUMN ELECT Humanities Electives</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE PHIL</td>
<td>PHIL 210 Ethics</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE T/R/S</td>
<td>T/R/S 122 Theology II</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE PHED</td>
<td>PHED ELECT Physical Education</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td><strong>Third Year</strong></td>
<td></td>
<td>16</td>
<td>16</td>
</tr>
<tr>
<td>MAJOR</td>
<td>CJ ELECT Criminal Justice Electives</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>OCNAGTE</td>
<td>SOC 224 American Minority Groups</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>OCNAGTE</td>
<td>SOC SCI ELECT Social Science Electives</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>GE S/BH</td>
<td>PS 181 American National Government II</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE NSCI</td>
<td>NSCI ELECT Natural Science Electives</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE ELECT</td>
<td>FREE ELECT Free Electives</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td><strong>Fourth Year</strong></td>
<td></td>
<td>18</td>
<td>18</td>
</tr>
<tr>
<td>MAJOR</td>
<td>CJ ELECT Criminal Justice Electives</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>MAJOR</td>
<td>CJ 480–481 or ELECT Internships or Electives</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>OCNAGTE</td>
<td>SOC SCI ELECT Social Science Electives</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>GE PHIL/T/R/S</td>
<td>PHIL/T/R/S ELECT Philosophy or T/R/S Elective</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE ELECT</td>
<td>FREE ELECT Free Elective</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL: 130 CREDITS</strong></td>
<td></td>
<td>15</td>
<td>15</td>
</tr>
</tbody>
</table>

2 In the elective area, if the student is considering general business as a minor, the department strongly recommends ACC 253: Financial Accounting, ACC 294: Managerial Accounting and MGT 351: Principles of Management I.

S/CJ 224 (S.W.) Sociology of Deviance
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
A study of white-collar crime, including corporate misdeeds, political corruption, occupational illegalities and upperworld deviance. This course will explore the causes, consequences, and criminal-justice system response to white-collar crime.

S/CJ 226 (S,D) Comparative Justice Systems
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.

S/CJ 227 Organized Crime Patterns
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 284 Special Topics in Criminal Justice
(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 310 Criminal Justice Process
A study of the law of criminal procedure, treating investigation and police practices, preliminary proceedings, and as they relate to the development and structure of the American criminal-justice system and as they affect offenders.

S/CJ 312 Criminal Law
A study of substantive criminal law in view of its historical foundations, purpose, functions and limits; of crimes and defenses generally; and of the elements which constitute certain specific crimes under state and federal statutes.

S/CJ 314 The Bill of Rights and Criminal Justice
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
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
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 Liabilities
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
Victimization
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.

CJ 338
Police Criminalistics
A course in crime scene reconstruction. Emphasis is on police criminalistics and the coordination of physical evidence with scientific laboratories.

CJ 382-383
Independent Study in Criminal Justice
(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
(Prerequisite: Permission of instructor) Supervised experiential learning in an approved criminal-justice setting, taken preferably in junior and senior year.

ECONOMICS
Satyajit Ghosh, Ph.D., Chair
See Economics (KOM) for faculty listing.

Overview
The Arts and Sciences major in Economics offers students a strong general 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 Economics major (see p. 222), 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.

Minor in Economics
18 credits consisting of ECO 153-154 (or ECO 101, 102), ECO 361-362, plus two upper-level economics courses.

ENGINEERING
Paul F. Fahey, Ph.D., Director
See Physics for faculty listing.

Overview
Engineering is the profession in which a knowledge of the mathematical and natural sciences gained by study, experience, and practice is judiciously applied to develop ways to utilize, economically, the materials and forces of nature for the benefit of mankind. A number of majors are available.

Computer Engineering
The undergraduate Computer Engineering curriculum is broad-based with continually updated content in computers, engineering science, and engineering design. The objectives of this program are to prepare our students for a professional career in computer engineering and to prepare them for advanced study in computer engineering, computer science, or electrical engineering. The technical core of the program emphasizes theoretical and laboratory skills, hardware and software skills, simulation and design.

Students in the Computer Engineering program study basic science, mathematics, computer science, electrical engineering, design, writing, public speaking, and the liberal arts in order to prepare for a professional career or advanced studies. The program includes courses from the programs of Computer Science and Electrical Engineering, providing balanced coverage and integration of the hardware and software aspects of computer systems. The design process is emphasized throughout all four years, and design projects are included in all laboratory courses. The sophomore and junior years include core courses in computer algorithms, digital system design, computer architectures, microprocessor systems, computer interfacing, and programming. These courses provide a foundation for the senior year, which includes electives and an in-depth two-semester design project.

Career opportunities in computer engineering range from computer applications such as computational medicine, oceanic engineering, and office automation to robotics, software engineering systems design, graduate study, reliability and other applications such as neural networks.

Electrical Engineering
The Electrical Engineering major of the Department of Physics/EE prepares the stu-
dent for the analysis and design of electronic systems and devices whose principal functions are the shaping and control of information. The Department of Physics/EE offers four areas of focus: Computer Engineering, Bio-medical Engineering, Optical Engineering, and Environmental Instrumentation Engineering. The specific electives for these areas of focus will be chosen in consultation with the student's academic advisor.

**Electronics-Business**

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 Electronics-Business 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 an electronically oriented business enterprise. The program also provides sufficient preparation for further studies leading to the Master of Business Administration.

**Pre-Engineering**

The University provides a pre-engineering program which introduces the student to the highly technical training necessary for all phases of the engineering profession. This is a two-year course of study which enables the student to transfer to another school to complete his or her degree work.

Of special importance is The University of Scranton’s association with the Cooperative Engineering Program at the University of Detroit Mercy, and its programs in chemical, civil, electrical, environmental, and mechanical engineering. For the student who has completed the pre-engineering curriculum at The University of Scranton, the Detroit Mercy three-year cooperative program offers alternate semesters of formal instruction and work experience in industry. A direct transfer program is available with Widener College, which may be either a co-op program beginning in the summer preceding the junior year or a regular two-year program. In addition to the valuable experience gained from industry, many students have been able to pay the cost of their tuition from the remuneration received for their work. This amounts to a substantial equivalent scholarship grant. Other schools into which University of Scranton students transfer include Lehigh, Bucknell, Penn State and Drexel.

Generally, different engineering programs have slightly different requirements which must be completed before starting the junior year. These will vary from school to school. Therefore, students should, before beginning the sophomore year, consult with an advisor at the institution at which they plan to complete their studies.

### Course Descriptions

#### ENGR 250 3 cr.
**Engineering Mechanics-Statics**  
(Prerequisite: PHYS 140; pre- or co-requisite: MATH 221) Various types of force systems; resultants and conditions of translational and rotational equilibrium; stress analysis of the parts of different types of structures by graphical, algebraic and vector methods; frictional forces; centroids and second moments of areas of solids. Three hours lecture.

#### ENGR 251 3 cr.
**Engineering Mechanics-Dynamics**  
(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 3 cr.
**Solid State Materials Science**  
(Prerequisites: PHYS 270, MATH 222) The crystalline state of matter; multielectron atoms and the band theory of solids; quantum statistics; applications to p-n junction diodes including photodetectors, LEDs and photovoltaics; bipolar and field-effect transistors; transistor modeling. Three hours lecture.

#### ENGR 253 1 cr.
**An Introduction to Computer-Aided Design**  
(Prerequisites: MATH 114, CMPS 134) This course is an introduction to the methods of drafting and design using computer-aided techniques. Topics to be covered include plane geometry construction, projection theory, sectional views, dimensioning, tolerancing and the development of working drawings. Extensive use will be made of commercially available CAD software packages. Two hours laboratory.

#### ENGR 254 1 cr.
**3D Computer-aided Design**  
(Prerequisite: ENGR 253) Advanced computer-aided design lab with emphasis on three-dimensional techniques. Topics include wireframe and solid modeling, rendering and Boolean operations and use of a finite-element program for mechanical analysis of CAD designs. Extensive use will be made of commercially available software packages. Two hours laboratory.

### Computer Engineering Curriculum

#### First Year

<table>
<thead>
<tr>
<th>Department and Number</th>
<th>Descriptive Title of Course</th>
<th>Fall Cr.</th>
<th>Spr. Cr.</th>
</tr>
</thead>
<tbody>
<tr>
<td>COGNATE PHYS 140–141</td>
<td>Elements of Physics I-II</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>COGNATE CMPS 134–146</td>
<td>Computer Science I-II</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>COGNATE MATH 142–144</td>
<td>Discrete Structures-Analyis I</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>GE HUMN HUMN ELECT</td>
<td>Humanities Elective</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE WRTG WRTG 107</td>
<td>Composition</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE FSEM INTD 100</td>
<td>Freshman Seminar</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>GE C/IL C/IL 102</td>
<td>Computing and Information Literacy</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE PHED PHED ELECT</td>
<td>Physical Education</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td><strong>TOTAL:</strong> 143.5 CREDITS</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1. ECO 153-154 suggested
2. Or technical elective in Physics (PHYS 372, 447, 460, 473, 474)

#### Second Year

<table>
<thead>
<tr>
<th>Department and Number</th>
<th>Descriptive Title of Course</th>
<th>Fall Cr.</th>
<th>Spr. Cr.</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAJOR E/CE 240–EE 241</td>
<td>Intro. to Comp. Eng. I-Circuit Analysis</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>COGNATE PHYS 270</td>
<td>Modern Physics</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>COGNATE EE 243L</td>
<td>Digital System Design Lab</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>COGNATE MATH 221–222</td>
<td>Analysis II-III</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>COGNATE CMPS 240</td>
<td>Data Structures</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>MAJOR CMPS 250</td>
<td>Machine Organization</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE PHIL-T/RS PHIL 120–210</td>
<td>Introduction to Philosophy-Ethics</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE PHED PHED ELECT</td>
<td>Physical Education</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>GE SPCH COMM 100</td>
<td>Public Speaking</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td><strong>TOTAL:</strong> 19</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Third Year

<table>
<thead>
<tr>
<th>Department and Number</th>
<th>Descriptive Title of Course</th>
<th>Fall Cr.</th>
<th>Spr. Cr.</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAJOR EE 343–344</td>
<td>Electronic Circuits I-II</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>MAJOR ENGR 350</td>
<td>Applied &amp; Engineering Math</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>MAJOR EE 546</td>
<td>Digital Signal Processing</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>COGNATE CHEM 112</td>
<td>General and Analytical Chemistry</td>
<td>4.5</td>
<td>4.5</td>
</tr>
<tr>
<td>GE HUMN HUMN ELECT</td>
<td>Humanities Elective</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE S/BH S/BH ELECT1</td>
<td>Social/Behavioral Electives</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE PHIL-T/RS T/R S 121</td>
<td>Theology I</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td><strong>TOTAL:</strong> 18.5</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Fourth Year

<table>
<thead>
<tr>
<th>Department and Number</th>
<th>Descriptive Title of Course</th>
<th>Fall Cr.</th>
<th>Spr. Cr.</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAJOR EE 449</td>
<td>Computer Interfacing</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>MAJOR EE 450–454</td>
<td>Control Systems-Robotics Design</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>MAJOR CMPS 374</td>
<td>Fundamentals of Software Engineering</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>COGNATE ENGR 250</td>
<td>Engineering Mechanics-Statics</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>MAJOR CMPS 352–344</td>
<td>Operating Systems-Programming Langs</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE PHIL-T/RS PHIL 7–T/R S ELECT</td>
<td>Philosophy or T/R S Elective</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE PHIL-T/RS T/R S 122</td>
<td>Theology II</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE HUMN HUMN ELECT</td>
<td>Humanities Electives</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>GE PHED PHED ELECT</td>
<td>Physical Education</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td><strong>TOTAL:</strong> 18</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1. ECO 153-154 suggested
2. Or technical elective in Physics (PHYS 372, 447, 460, 473, 474)
### Electronics-Business Curriculum

<table>
<thead>
<tr>
<th>Department and Number</th>
<th>Descriptive Title of Course</th>
<th>Fall Cr.</th>
<th>Spq Cr.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>First Year</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAJOR (S/BH)</td>
<td>ECO 153–154</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>COGNATE (GE QUAN)</td>
<td>MATH 113–114 or MATH 114–221</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>COGNATE (GE NSCI)</td>
<td>PHYS 140–141</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>GE WRTG–SCHI</td>
<td>WRTG 107–COMM 100</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE C/IL</td>
<td>C/IL 102</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE PHIL</td>
<td>PHIL 120</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE FSEM–PHED</td>
<td>INTD 106–PHED ELECT</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td><strong>Second Year</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAJOR</td>
<td>E/CE 240</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MAJOR</td>
<td>EE 241</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>MAJOR</td>
<td>ACC 253–254</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MAJOR</td>
<td>ENGR 252</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>COGNATE (GE NSCI)</td>
<td>PHYS 270</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>COGNATE (GE NSCI)</td>
<td>MATH 221–222 or MATH 222–241</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>GE HUMN</td>
<td>HUMN ELECT</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE PHED</td>
<td>PHED ELECT</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td><strong>Third Year</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAJOR</td>
<td>EE 343–344</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>MAJOR</td>
<td>STAT 251–252</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE PHIL</td>
<td>PHIL 210</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE T/R/S</td>
<td>T/R/S 121–122</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE HUMN</td>
<td>HUMN ELECT</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>GE PHIL/T/R/S</td>
<td>PHIL/T/R/S ELECT</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE PHED</td>
<td>PHED ELECT</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td><strong>Fourth Year</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAJOR</td>
<td>MGT 351</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MAJOR</td>
<td>MKT 351</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MAJOR</td>
<td>FIN 351</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MAJOR</td>
<td>OIM 352</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MAJOR</td>
<td>OIM 351</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE HUMN</td>
<td>HUMN ELECT</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE ELECT</td>
<td>FREE ELECT</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td><strong>TOTAL: 131 CREDITS</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Electrical Engineering Curriculum

<table>
<thead>
<tr>
<th>Department and Number</th>
<th>Descriptive Title of Course</th>
<th>Fall Cr.</th>
<th>Spq Cr.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>First Year</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>COGNATE</td>
<td>PHYS 140–141</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>COGNATE</td>
<td>MATH 114–221</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>GE WRTG–SCHI</td>
<td>WRTG 107–COMM 100</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE C/IL</td>
<td>C/IL 102–CMPS 134</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE PHIL/T/R/S</td>
<td>PHIL 120–T/R’S 121–122</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE FSEM–PHED</td>
<td>INTD 106–PHED ELECT</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td><strong>Second Year</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAJOR</td>
<td>E/CE 240–EE 241</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MAJOR</td>
<td>EE 243L</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MAJOR</td>
<td>ENGR 350</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>COGNATE (GE NSCI)</td>
<td>PHYS 270</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>COGNATE</td>
<td>MATH 222–241</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>GE PHIL</td>
<td>PHIL 210</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL: 135 CREDITS</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Fourier series, Fourier transforms, and Laplace Transforms; Partial differential equations and boundary value problems; special functions including Bessel functions and Legendre polynomials. MAPLE software is utilized. Three hours lecture. (Also listed as PHYS 350.)

ENGR 352

**Statistical and Engineering Thermodynamics**

(Prerequisite: PHYS 270) 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 gases and theory of solids. Special topics depend upon interests of majors represented. Three hours lecture. (Also listed as PHYS 352.)

EE/C 240

**Introduction to Computer Engineering**

(Formerly EE 240) 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.

EE 241

**Circuit Analysis**

(Prerequisite: PHYS 141; pre- or co-requisite: MATH 222) Intermediate course treating Kirchhoff’s Laws, resistive networks, systematic methods, network theorems, first-and second-order transients, and sinusoidal steady-state. Introduction to SPICE. Three hours lecture and two hours laboratory.

EE/C 243L

**Digital System Design Laboratory**

(Formerly EE 243L) Introduction to the design, construction and testing of digital logic circuits. Most of the major components of a computer will be investigated. Use of computer program to draw circuits and designs. Three hours laboratory.

EE/C 340

**Digital Systems**

(Prerequisites: E/C 240, MATH 142, CMPS 350) Analysis and design of advanced digital circuits, minimization techniques, combinational and sequential circuit design and numerical techniques. The interdependence of hardware and software on computer design will be stressed.

EE 343

**Electronic Circuits I**

(Prerequisites: EE 241, ENGR 252) Analysis and design of analog electronic circuits using diodes, BJTs, and FETs. Emphasis is placed on amplifier circuits and their frequency dependence. Three hours lecture.
Pre-Engineering Transfer Program Curriculum

<table>
<thead>
<tr>
<th>Department and Number</th>
<th>Descriptive Title of Course</th>
<th>Fall Cr.</th>
<th>Spr. Cr.</th>
</tr>
</thead>
<tbody>
<tr>
<td>OGNATE (GE NSCI)</td>
<td>PHYS 140–141</td>
<td>Elements of Physics I–II</td>
<td>4</td>
</tr>
<tr>
<td>OGNATE</td>
<td>CMPS 134</td>
<td>Computer Science I</td>
<td>4</td>
</tr>
<tr>
<td>OGNATE (GE QUAN)</td>
<td>MATH 114–221</td>
<td>Analysis I–II</td>
<td>4</td>
</tr>
<tr>
<td>GE WRTG–SCH</td>
<td>WRTG 107–COMM 100</td>
<td>Composition–Public Speaking</td>
<td>3</td>
</tr>
<tr>
<td>GE CIL</td>
<td>CIL 102</td>
<td>Computing and Information Literacy</td>
<td>3</td>
</tr>
<tr>
<td>GE PHIL</td>
<td>PHIL 120</td>
<td>Introduction to Philosophy</td>
<td>3</td>
</tr>
<tr>
<td>GE T/RS</td>
<td>T/RS 121</td>
<td>Theology I</td>
<td>3</td>
</tr>
<tr>
<td>GE FSEM</td>
<td>INTD 100</td>
<td>Freshman Seminar</td>
<td>1</td>
</tr>
<tr>
<td>GE PHED</td>
<td>PHED ELEC</td>
<td>Physical Education</td>
<td>1</td>
</tr>
</tbody>
</table>

Second Year

<table>
<thead>
<tr>
<th>Department and Number</th>
<th>Descriptive Title of Course</th>
<th>Fall Cr.</th>
<th>Spr. Cr.</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAJOR</td>
<td>EE 240</td>
<td>Introduction to Digital Circuits</td>
<td>3</td>
</tr>
<tr>
<td>MAJOR</td>
<td>EE 241</td>
<td>Circuit Analysis</td>
<td>3</td>
</tr>
<tr>
<td>MAJOR</td>
<td>ENGR 250–252</td>
<td>Statics–Solid Matter Science</td>
<td>3</td>
</tr>
<tr>
<td>MAJOR</td>
<td>ENGR 253–254</td>
<td>Introduction to CAD–S-D CAD</td>
<td>1</td>
</tr>
<tr>
<td>OGNATE</td>
<td>PHYS 270</td>
<td>Elements of Modern Physics</td>
<td>4</td>
</tr>
<tr>
<td>OGNATE</td>
<td>MATH 222–341</td>
<td>Analysis II–Diff. Equations</td>
<td>4</td>
</tr>
<tr>
<td>OGNATE</td>
<td>CHEM 112–113</td>
<td>General &amp; Analytical Chem I–II</td>
<td>3</td>
</tr>
<tr>
<td>GE ELECT</td>
<td>FREE ELEC</td>
<td>Free Elective</td>
<td>3</td>
</tr>
</tbody>
</table>

TOTAL: 72 CREDITS

1 EE Major Elective may be substituted for CHEM 113

EE 343L 2 cr.
Electronic Circuits I Lab
(Prerequisite: EE 343) Experiments with diodes, BJTs, JFETs and MOSFETs. Some of the experiments are short projects to introduce the student to the application of design principles. Three hours laboratory.

EE 344 3 cr.
Electronic Circuits II
(Prerequisite: EE 343, EE 343L) Laboratory-oriented course designed to acquaint students with the operation and design of electronic instrumentation. Analysis of electronic instruments used in various applications and the design of special-purpose instrumentation. Emphasis on use of operational amplifiers in design situations. One hour lecture and three hours laboratory.

EE 346 3 cr.
Digital Signal Processing
(Prerequisite: EE 240, EE 241) 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 3 cr.
Electromagnetics I
(Prerequisite: PHYS 270, ENGR 350) Analytic treatment of electrical and magnetic theory; vector calculus of electrostatic fields; dielectric materials; vector calculus of magnetic fields. Three hours lecture. (Also listed as PHYS 447.)

EE 448 3 cr.
Electromagnetics II
(Prerequisite: EE 447) Magnetic materials, electromagnetic induction, displacement currents, Maxwell’s equations; radiation and waves; applications include transmission lines, wave guides, and antennas. Three hours lecture. (Also listed as PHYS 448.)

EE 448L 1 cr.
Electromagnetics Design Laboratory
(Co-requisite: EE 448) Laboratory designed to emphasize and reinforce the experimental aspects 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. (Also listed as PHYS 448L.)

EE 450 3 cr.
Control Systems
(Prerequisites: EE 344, ENGR 350) Review of system modeling and Laplace Transforms; block diagram reduction and signal-flow graphs; transient and steady-state control-system characteristics; root locus and frequency-response methods of analysis and compensation design; state variable methods. Three hours lecture.

EE 451 3 cr.
Communication Systems
(Prerequisites: EE 344, ENGR 350) A study of the principles of communication theory with emphasis given to analog and digital communications. Modulation techniques such as AM, DSB, SSB, and FM are discussed in detail. Performance of these systems in the presence of noise is also studied. Three hours lecture.

EE 454 3 cr.
Robotics Design Project and Professional Practice
(Prerequisites: EE 449, 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. One hour lecture and three hours laboratory.

EE 484 3 cr.
Superconductivity Devices and Circuits
(Prerequisites: EE 447, ENGR 252) A course designed for students with interest in superconductivity. 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 superconductivity. Josephson junctions and superconducting devices (SQUIDs). Group projects (literature search and brief presentations at the end of the term) are assigned.

ENGLISH

Faculty

Jones DeRitter, Ph.D., Chair
Richard A. Larsen, M.F.A., Program Director for Theatre
Rebecca S. Beal, Ph.D.
Ellen M. Casey, Ph.D.
Daniel V. Fraustino, Ph.D.
Michael Friedman, Ph.D.
Antoinette Gail Glover, Ph.D.
Leonard G. Gougeon, Ph.D.
John M. Hill, M.F.A.
Francis X. Jordan, Ph.D.
John M. McNemey, Ph.D.
Michael T. O’Steen, M.F.A.
Richard H. Passon, Ph.D.
Joseph L. Quinn, S.J., Ph.D.
Carl M. Schaffer, M.F.A.
Stephen E. Whitaker, Ph.D.

Overview

The English Department offers courses in literature, theatre, writing, film, pedagogy, and theory. Courses are designated as English (ENLT), Theatre (THTR) and Writing (WRTG) and are described below 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. If they wish, 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.)

English Major

The student majoring in English must take ENLT 140: English Inquiry or the equivalent, and twelve other courses designated ENLT, THTR, or WRTG. Students are required to take at least one course in each of the following areas:

A. British Literature: Medieval and Renaissance (ENLT 234, 235, 240, 340, 342, 343)
Theatre Major
As a major existing within the English Department, Theatre offers a broad-based liberal arts degree for the theatre generalist. The Theatre major prepares the student for further, more focused training in the theatrical arts through a wide variety of courses in performance arts, technical theatre, design arts, directing, theatre history, playwriting and dramatic literature. Students may focus their programs of study to some degree toward specific interests in these areas of theatre through the use of electives within the major.

Theatre majors are strongly encouraged 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, 111, 112), two Theatre History courses (THTR 211, 212), Design for the Theatre (THTR 213), Directing II (THTR 311), and 5 credits of Production Laboratory (THTR 280, 380). Four elective courses in Theatre round out the major. Introduction to Drama (ENLT 122), and at least one other course in Dramatic Literature are required in the student’s cognate area. Courses which would satisfy the Dramatic Literature requirement include ENLT 211, 220, 295, 340, 341, 345, 355, 461.

Minors within the English Department

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 above). The remaining 15 credits must be 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 major.

Writing Minor
To minor in Writing, the student must take a minimum of six courses (18 credits). Three courses are required: THTR 110, THTR 111 and either THTR 211 or THTR 212. Elective courses counted toward the minor include any course with the THTR prefix and/or WRTG 215, 217, or 315. The student may also include one of the following literature courses: ENLT 122, 211, 220, 295, 340, 341, 345, 355, 461.

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 (WRTG 213, 214, 215, 216, 217, 313, 314, 315, 316) and one course in Applied Writing (WRTG 210, 211, 212).

Course Descriptions

Literature

ENLT 103 3 cr.
Children’s Literature
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 110 3 cr.
History of Cinema
A study of the historical development of motion pictures. Practitioners in America and throughout the world are treated in this concise history of cinema. Film screening fee.

ENLT 111 3 cr.
The Art of Cinema
The study of the artists, technicians and businessmen who make films. Taped interviews of internationally famous filmmakers, as well as an analytical scrutiny of modern films, develop students’ intelligent, active participation in the major art form in modern culture. Film screening fee.

ENLT 112 3 cr.
Film Genres
A study of popular film genres (i.e., the western, the thriller, the musical, the historical epic, the woman’s picture) as they developed and changed in the U.S. and abroad. Film screening fee.

ENLT 113 3 cr.
Film Criticism
A study of the grammar, poetics, rhetoric, and aesthetic of film criticism constitutes the heart of this course. Film screening fee.

ENLT 120 3 cr.
(CL) Introduction to Fiction
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 3 cr.
(CL) Introduction to Poetry
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 3 cr.
(CL) Introduction to Drama
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 3 cr.
(CL) Masterworks of Western Civilization
Study of masterpieces of literature from the Hebrew Old Testament and classic Greek to the modern European, illuminating the development of Western civilization.

ENLT 125 3 cr.
(CL) Classic American Stories
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 3 cr.
(CL) Introduction to Irish Culture
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.
## English Curriculum

<table>
<thead>
<tr>
<th>Department and Number</th>
<th>Descriptive Title of Course</th>
<th>Fall Cr.</th>
<th>Spr. Cr.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>First Year</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAJOR ENLT 140</td>
<td>English Inquiry</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MAJOR ENLT</td>
<td>Area Requirement</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MAJOR ENLT-WRTG-THTR</td>
<td>Area Requirement and/or Elective</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE HUMN HUMN ELECT</td>
<td>Humanities Elective</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE QUAN QUAN ELECT</td>
<td>Quantitative Reasoning Elective</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE WRTG WRTG 107</td>
<td>Composition</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE COMM COMM 100</td>
<td>Public Speaking</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE C/JL C/JL 102</td>
<td>Computing &amp; Information Literacy</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE PHIL-T/RS PHIL 120-T/RS 121</td>
<td>Intro to Philosophy–Theology I</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE FSEM-PHED INTD 100-PHED ELECT</td>
<td>Freshman Seminar–Physical Education</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td><strong>Second Year</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAJOR ENLT</td>
<td>Area Requirement</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>MAJOR ENLT-WRTG-THTR</td>
<td>Area Requirement and/or Elective</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>OOGNATE COGNATE ELECT</td>
<td>Cognate Electives</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE PHIL-T/RS PHIL 210-T/RS 122</td>
<td>Ethics–Theology II</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE NSCI NSCI ELECT</td>
<td>Natural Science Electives</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE PHED PHED ELECT</td>
<td>Physical Education</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td><strong>Third Year</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAJOR ENLT</td>
<td>Area Requirement</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>MAJOR ENLT-WRTG-THTR</td>
<td>Area Requirement and/or Elective</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>OOGNATE COGNATE ELECT</td>
<td>Cognate Electives</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>GE PHIL-T/RS PHIL 210-T/RS 122</td>
<td>Elective</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE S/BH S/BH ELECT</td>
<td>Social/Behavioral Electives</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE ELECT FREE ELECT</td>
<td>Free Electives</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td><strong>Fourth Year</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAJOR ENLT 490 or 491</td>
<td>Senior Seminar</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MAJOR ENLT-WRTG-THTR</td>
<td>Area Requirement and/or Elective</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>OOGNATE COGNATE ELECT</td>
<td>Cognate Electives</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE HUMN HUMN ELECT</td>
<td>Humanities Elective</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE ELECT FREE ELECT</td>
<td>Free Electives</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td>16</td>
<td>16</td>
</tr>
</tbody>
</table>

**English Curriculum Requirement**

- **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 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.

The prerequisite for all 200-level ENLT courses is ENLT 140 or the equivalent. Students must complete the University Written Communication requirement before they can register for any Writing Intensive literature course.

<table>
<thead>
<tr>
<th>Department and Number</th>
<th>Descriptive Title of Course</th>
<th>Fall Cr.</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENLT 210</td>
<td>(CL) Modern Poetry</td>
<td>3 cr.</td>
</tr>
<tr>
<td>ENLT 211</td>
<td>(CL) Dramatic Comedy</td>
<td>3 cr.</td>
</tr>
<tr>
<td>ENLT 212</td>
<td>(CL,W) Masters of Darkness</td>
<td>3 cr.</td>
</tr>
<tr>
<td>ENLT 213</td>
<td>(CL,W) Satire</td>
<td>3 cr.</td>
</tr>
<tr>
<td>ENLT 214</td>
<td>Macabre Masterpieces</td>
<td>3 cr.</td>
</tr>
<tr>
<td>ENLT 215</td>
<td>Literature of the Absurd</td>
<td>3 cr.</td>
</tr>
<tr>
<td>ENLT 220</td>
<td>Shakespeare</td>
<td>3 cr.</td>
</tr>
<tr>
<td>ENLT 221</td>
<td>Woody Allen</td>
<td>3 cr.</td>
</tr>
<tr>
<td>ENLT 222</td>
<td>Graham Greene’s Travelers</td>
<td>3 cr.</td>
</tr>
<tr>
<td>ENLT 224</td>
<td>Perspectives in Literature about Illness</td>
<td>3 cr.</td>
</tr>
<tr>
<td>ENLT 225</td>
<td>Writing Women</td>
<td>3 cr.</td>
</tr>
<tr>
<td>ENLT 226</td>
<td>Novels by Women</td>
<td>3 cr.</td>
</tr>
<tr>
<td>ENLT 227</td>
<td>Frankenstein’s Forebears</td>
<td>3 cr.</td>
</tr>
<tr>
<td>ENLT 228</td>
<td>Race in Anglo-American Culture</td>
<td>3 cr.</td>
</tr>
</tbody>
</table>

College of Arts and Sciences • English 147
course focuses on literary and historical treat-
ments of encounters involving Europeans, Euro-
pean-Americans, Africans, African-Americans, and
Native Americans. The reading list includes
poems, plays, novels, captivity narratives, fronti-
er biographies, and slave autobiographies.

ENLT 229
(CL.D) The Cross-Cultural Novella
This course aims both to foster an understand-
ing and appreciation of the novella as a distinct
literary form and to introduce the student to the
literature of a variety of continents and cultures.
The course will deal with writers such as Tolstoy,
Flaubert, Kafka, Kawabata, Mann, and Gaines.

ENLT 230
(CL) American Romanticism
This course will deal with representative short
works of America’s six major Romantic authors:
Emerson, Thoreau, Whitman, Hawthorne, Mel-
vile, and Poe.

ENLT 234
(CL,W) Camelot Legend
This course will examine the development of
Arthurian legend—tales of knights and ladies asso-
ciated with the court of King Arthur—from its
early origins in Celtic and Latin medieval litera-
ture, through medieval romances and histories,
culminating in Malory’s Morte D’Arthur.

ENLT 235
(CL,W) Literature in the Age of Chaucer
(Area A) This course will explore 14th-century
non-dramatic vernacular literature. In addition
to Chaucer, authors studied may include Lang-
lend, Kempe, and the Pearl Poet.

ENLT 236
(CL,W) The Romantic Protest
(Area C) 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 waning of the “Romantic religion” of
Blake, Coleridge, and Wordsworth in an increas-
ingly prosperous, skeptical, and secularized era.

ENLT 239
(CL,D,W) Irish Short Story
Area E) For two centuries, Irish short story
writers have represented the comedy and tragedy
of Irish experience and simultaneously have fash-
ioned the medium into one of our most flexible
and innovative art forms. In historical and criti-
cal contexts, we examine the work of forth
authors, emphasizing Joyce, O’Connor, O’Faolain,
and O’Flaherty.

ENLT 240
British Literature: Medieval and Renaissance
(Area A) 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
(Area B) Study of a select group of English and
Anglo-Irish authors whose works were first pub-
lished between 1660 and 1776. Discussion and
assignments will emphasize literary history, criti-
cal analysis, and sociopolitical contexts.

ENLT 242
British Literature: Romantic and Victorian
(Area C) 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
(Area D) 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 develop-
ment of major American themes and attitudes.

ENLT 244
Modern British Literature
(Area E) Selected modern and postmodern Eng-
litish poets, playwrights, and fiction writers: Hop-
kiss, Eliot, Hughes, Auden, Larkin, Spender,
Osborne, Stoppard, Finter, Greene, Waugh, Read,
Lodge, Amis, Spark, McEwan and Chatwin.

ENLT 245
American Literature, 1680 to the Present
(Area F) Study of a select group of major Ameri-
can authors from the Civil War to the present.
Included are Twain, Crane, Fitzgerald and Von-
negut. The historical and cultural milieu and the
development of major American themes and atti-
dues are reviewed.

ENLT 295
(CL) Shakespeare in Stratford
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.

All 300-level ENLT courses have a prerequisite
of ENLT 140 or equivalent; a 200-level ENLT
course is strongly recommended.

ENLT 340
Late Medieval Drama
(Area A) 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,W) Shakespeare: Special Topics
(Theory Intensive) A detailed study of Shake-
peare’s treatment of either a particular genre
(comedy, tragedy, history, romance) or a particu-
lar 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
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 344
Milton’s Paradise Lost
Intensive study of Milton’s masterpiece. In addi-
tion to our reading and discussion of the text
itself, we will examine its biographical and histori-
cal context and explore a variety of critical
approaches to the poem.

ENLT 345
(CL,W) Restoration and 18th-Century Drama
(Area B, Theory Intensive) A survey of the major
formal and thematic developments on the Lon-
don 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 347
Victorian Voices
This course will focus on three major Victorian
authors: one non-fiction prose writer, one novel-
ist, and one poet. Possible authors include Car-
lyle, Arnold, Ruskin, Dickens, Eliot, Bronn,
Tennyson and Browning.

ENLT 348
(CL,D,W) Colonial and Postcolonial Fiction
Through detailed study of such authors as
Achebe, Conrad, Forster, Kincaid, Kipling, Nai-
paul, 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
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
(Area D) Cooper’s The Prairie, Emerson’s
Nature, Thoreau’s Walden, Melville’s Moby Dick,
and others. Evaluation of the works in their his-
torical context and the development of the
American Romantic movement, 1820-1865.

ENLT 351
Transcendentalists
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,W) The Development of the American Novel
This course will focus on the ways in which the
American novel has reflected our changing liter-
ary and cultural values from the late 18th to the
ENLT 353  
Major Works: American Realists  
(Area F) A review of the first “golden age” of American drama, which includes hitting masterpieces such as The Hairy Ape, Awake and Sing, and comic works such as You Can’t Take It with You and The Time of Your Life. This course may be counted toward the Theatre track or minor.

ENLT 356  
(D) Jewish Literature  
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 360  
(Literature and Philosophy  
(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  
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  
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  
Gerald Manley Hopkins, S.J.  
Study of the life and works of Gerald Manley Hopkins, S.J., the only priest-poet ever to be honored with a place in Westminster Abbey’s Poet’s Corner.

ENLT 382-383  
Variable credit  
Guided Independent Study  
A tutorial program open to third-year students. Content determined by mentor.

ENLT 395  
Travel Seminar: Ireland  
This is an artistic, cultural, literary tour. Students will study the people and places that contribute to Ireland’s distinct place in the world of literary art. (Interession or Spring Break)  
All 400-level ENLT courses have a prerequisite of ENLT 140 or equivalent; a 300-level ENLT course is strongly recommended.

ENLT 443  
Chaucer  
(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 455  
American Realists  
(Area F) Study of representative figures in the post-Civil War period, the period of the rise of American realism. Authors treated will be Mark Twain, Henry James, Stephen Crane, and selected modern authors.

ENLT 458  
Joyce  
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 Joyce both in the universal and the peculiarly Irish.

ENLT 461  
Modern Drama  
Some previous study of drama required. A survey of the major trends and authors in 20th-century British and American drama, with some Irish and Continental works included. Readings will include works by Shaw, O’Neill, Miller and Williams. This course may be counted toward the Theatre major, minor, or track.

ENLT 462  
Literary Criticism and Theory  
(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 470  
Teaching Modern Grammars  
This course explores the English language in the context of transformational/generative grammar and in relation to what is expected of middle school and high school English teachers. Techniques for teaching these new grammars and laboratory teaching experience in the first-year writing clinic will be presented.

ENLT 480  
Internship  
English majors can receive internship credit for a variety of on-the-job experiences. Approval must be obtained beforehand from chair and dean.

ENLT 482-483  
Variable Credit  
Guided Independent Study  
A tutorial program open to fourth-year students. Content determined by mentor.

ENLT 490-491  
(W) Senior Seminar  
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.

THTR 110  
(CL) Introduction to Theatre  
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 111  
(CA) Introduction to Acting  
This course introduces the student to the fundamental elements of the actor’s craft, including internal and external techniques, character analysis, and vocal/physical warmups. These elements will be used in various in-class exercises and rehearsed performance work. The subject of auditions will also be covered. (First of a three-course sequence.)

THTR 112  
Introduction to Technical Theatre  
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 210  
Intermediate Acting  
(Prerequisite: B- or higher in THTR 111) This course focuses on further exploration of internal acting techniques. Stanislavski-based and other modern acting systems are explored through exercises, written analysis, and scene/monologue study. There is an emphasis on ensemble acting in the classroom, rehearsal, and production. (Second of a three-course sequence.)

THTR 211  
(CL) Theatre History I  
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 plays lived and worked.

THTR 212  
(CL) Theatre History II  
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 plays lived and worked.

THTR 213  
(CA) Design for the Theatre  
(Prerequisite: THTR 112 with a grade of B- or higher) An introduction to the various design and production elements in theatre. Scenery, lighting, costumes, props and sound will be explored. Students participate in the design elements of the University productions.

THTR 214  
Drama Practicum  
(Prerequisite: any other course that may be counted in the Theatre minor) Work on one of
Theatre Curriculum

<table>
<thead>
<tr>
<th>Department and Number</th>
<th>Descriptive Title of Course</th>
<th>Fall Cr.</th>
<th>Spr. Cr.</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAJOR THTR 110-111</td>
<td>Intro. Theatre-Intro. Acting</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>MAJOR THTR 112</td>
<td>Intro. Tech. Theatre</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>COGNATE ENLT 122</td>
<td>Intro. Drama</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE SPCH WRTG 107-COMM 100</td>
<td>Composition–Public Speaking</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE C/IL C/IL 102</td>
<td>Computing and Information Literacy</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE QUAN QUAN ELECT</td>
<td>Quantitative Reasoning</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE PHIL-T/RS PHIL 120-T/RS 121</td>
<td>Intro. to Philosophy–Theology I</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE FSEM-PHED INTD 100-PHED ELECT</td>
<td>Freshman Seminar–Physical Education</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>17</td>
<td>16</td>
</tr>
</tbody>
</table>

Second Year

<table>
<thead>
<tr>
<th>Department and Number</th>
<th>Descriptive Title of Course</th>
<th>Fall Cr.</th>
<th>Spr. Cr.</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAJOR THTR 211-212</td>
<td>Theatre History I–II</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>MAJOR THTR 213</td>
<td>Design for the Theatre</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>MAJOR THTR 280</td>
<td>Production Laboratory</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>COGNATE ENLT ELECT</td>
<td>Elective–Dramatic Literature</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE S/BH S/BH ELECT</td>
<td>Social/Behavioral Elective</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE PHIL-T/RS PHIL 210-T/RS 122</td>
<td>Ethics–Theology II</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE NSCI NSCI ELECT</td>
<td>Natural Science Electives</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE HUMN HUMN ELECT</td>
<td>Humanities Elective</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>GE PHED PHED ELECT</td>
<td>Physical Education</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>17</td>
<td>16</td>
</tr>
</tbody>
</table>

Third Year

<table>
<thead>
<tr>
<th>Department and Number</th>
<th>Descriptive Title of Course</th>
<th>Fall Cr.</th>
<th>Spr. Cr.</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAJOR THTR 311</td>
<td>Directing I</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>MAJOR THTR ELECT</td>
<td>Electives</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>MAJOR THTR 280</td>
<td>Production Laboratory</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>COGNATE COGNATE ELECT</td>
<td>Cogitate Elective</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>GE PHIL-T/RS PHIL 120-T/RS 122</td>
<td>Philosophy or T/RS Elective</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE S/BH S/BH ELECT</td>
<td>Social/Behavioral Elective</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE ELECT FREE ELECT</td>
<td>Free Electives</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>16</td>
<td>16</td>
</tr>
</tbody>
</table>

Fourth Year

<table>
<thead>
<tr>
<th>Department and Number</th>
<th>Descriptive Title of Course</th>
<th>Fall Cr.</th>
<th>Spr. Cr.</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAJOR THTR ELECT</td>
<td>Electives</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>MAJOR THTR 280</td>
<td>Production Laboratory</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>COGNATE COGNATE ELECT</td>
<td>Cogitate Electives</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>GE ELECT FREE ELECT</td>
<td>Free Electives</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>GE HUMN HUMN ELECT</td>
<td>Humanities Elective</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>16</td>
<td>16</td>
</tr>
</tbody>
</table>

TOTAL: 130 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 112–115 that qualify as dramatic literature courses.
2. Cognate electives must include two courses in dramatic literature; one of these must be ENLT 112.

THTR 280 1 cr. Production Laboratory
Theatre majors working on University Players productions can receive credit for work 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 3 cr. Theories of Theatre
Students will study the theories of theatre advanced in the writing of Diderot, Archer, Stanislavsky, Vakhtangov, Brecht, Copeau, Artaud, Groteskii, Brook, and Schechner.

THTR 311 3 cr. Directing I
(Prerequisites: B- or higher in THTR 111 or permission of instructor.) An introduction to a range of skills and techniques used by stage directors as they transform scripts into successful performances. Several plays will be read and analyzed. Students will direct a short scene or play for performance.

THTR 313 3 cr. Set Design for the Theatre
(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 370 3 cr. Technical Theatre: Special Topics
Topic and prerequisites will be announced prior to preregistration.

THTR 371 3 cr. Theatre Design: Special Topics
Topic and prerequisites will be announced prior to preregistration.

THTR 372 3 cr. Dramatic Literature: Special Topics
Topic and prerequisites will be announced prior to preregistration.

THTR 373 3 cr. Acting: Special Topics
(Prerequisite: THTR 111) Topic and prerequisites will be announced prior to preregistration. Past topics include actor's movement, voice and speech, stage combat.

THTR 380 2 cr. Advanced Production Lab
(Prerequisites: 2 cr. of THTR 280, permission of the instructor.) A tutorial program open to junior and senior students who have completed appropriate lower-division coursework.

THTR 410 3 cr. Advanced Acting
(Prerequisite: B- or higher in THTR 210.) This course focuses on external techniques, especially the use of the actor’s body to create physical characterizations. This work builds on the student’s knowledge and experience through the use of exercises, written analysis, and scene/motivation study. (Third of a three-course sequence.)

THTR 411 3 cr. Directing II
(Prerequisite: 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 Variable Credit Internship
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.

WRTG 105 3 cr. College Writing I
(Placement into 105 required) The first of a two-course sequence that fulfills the University's Written Communication requirement. This course concentrates on defining and focusing problems, creating arguments, and providing evidence in academic essays. This course cannot be counted toward the Writing Track or the Writing Minor.

WRTG 106 3 cr. (D) College Writing II
(Prerequisite: WRTG 105) The second of a two-course sequence that fulfills the University's Written Communication requirement, this course combines study of the elements of style and grammar with instruction in structuring and providing support for argumentative essays. This course cannot be counted toward the Writing Track or the Writing Minor.

WRTG 107 3 cr. Composition
A study of expository and argumentative prose, and the strategies and techniques used by successful academic writers. Successful completion of WRTG 107 (with a grade of C or better) course fulfills the University’s written communica-
WRTG 210 3 cr. (W) Advanced Composition
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 3 cr. (W) Technical and Business Writing
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 3 cr. (W) Writing for the Law
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 3 cr. Fiction Writing I
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 3 cr. Nonfiction Writing I
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 3 cr. Play Writing I
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.

WRTG 216 3 cr. Poetry Writing I
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 faculty with language and a love of reading and writing. Photocopying fee.

WRTG 218 3 cr. (216) Writing the Web
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 310 3 cr. (W) Strategies for Teaching Writing
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 3 cr. Fiction Writing II
(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 3 cr. Nonfiction Writing II
(Prerequisite: WRTG 214) The advanced workshop augments intensive student writing assignments with discussion and analysis of creative nonfiction by various hands.

WRTG 315 3 cr. Play Writing II
(Prerequisite: WRTG 215) This advanced workshop builds on the skills acquired in Play Writing 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.

WRTG 316 3 cr. Poetry Writing II
(Prerequisite: WRTG 216) Advanced workshop on practice and theory of writing poetry. The course encourages extensive reading and intensive writing. Photocopying fee.

WRTG 382-383, 482-483 Variable Credit
Guided Independent Study
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
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.

 ENVIRONMENTAL SCIENCE
Michael C. Cann, Ph.D., Co-Director, Chemistry Department;
Michael D. Carey, 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.

Environmental Science 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:

\[ \text{Group A} \]

\begin{itemize}
  \item CHEM 342 Env. Toxicology 3 cr.
  \item CHEM 344 Env. Geochemistry 3 cr.
  \item CHEM 350 General Biochemistry I 3 cr.
  \item CHEM 352 Chemical Toxicology 3 cr.
\end{itemize}

\[ \text{Group B} \]

\begin{itemize}
  \item BIOL 195 Tropical Biology 3 cr.
  \item BIOL 250 Microbiology 5 cr.
  \item BIOL 272 Invertebrate Biology 5 cr.
  \item BIOL 273 Marine Ecology 3 cr.
  \item BIOL 349 Plant Physiology 5 cr.
  \item BIOL 370 Animal Behavior 4.5 cr.
  \item BIOL 374 Vertebrate Biology 4.5 cr.
  \item BIOL 375 Evolution 3 cr.
  \item BIOL 471 Applied Ecology 3 cr.
  \item BIOL 472 Systems Ecology 3 cr.
  \item BIOL 473 Estuarine Ecology 5 cr.
\end{itemize}

III. In fulfilling GE requirements, students are strongly encouraged to enroll in:

\begin{itemize}
  \item PHIL 213 Environmental Ethics 3 cr.
  \item PS 230 Env. Laws and Regs. 3 cr.
  \item ECO 103 Econ. of Env. Issues 3 cr.
\end{itemize}

Course Descriptions
Most of the required and recommended courses in the Environmental Science major reside in other departments, and their descriptions can be found under the appropriate departmental listing.
Environmental Science Curriculum

<table>
<thead>
<tr>
<th>Department and Number</th>
<th>Descriptive Title of Course</th>
<th>Fall Cr.</th>
<th>Spr. Cr.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>First Year</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAJOR (GE NSCI)</td>
<td>CHEM 112-113 Gen. Analytical Chem I–II</td>
<td>4.5</td>
<td>4.5</td>
</tr>
<tr>
<td>MAJOR</td>
<td>BIOL 141-142 General Biology I–II</td>
<td>4.5-4.5</td>
<td></td>
</tr>
<tr>
<td>MAJOR</td>
<td>NSCI 201 Science and Human Environment</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>GE WRTG–SCH</td>
<td>WRTG 107–COMM 100 Composition–Public Speaking</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE CIL</td>
<td>CIL 102 Computing and Information Literacy</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE FSEM–PHED</td>
<td>INTD 100–PHED ELEC Freshman Seminar–Phys. Ed.</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td><strong>Second Year</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAJOR</td>
<td>CHEM 232–233 Organic Chemistry I–II</td>
<td>4.5</td>
<td>4.5</td>
</tr>
<tr>
<td>MAJOR</td>
<td>BIOL 371 Ecology</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>MAJOR</td>
<td>BIOL 379 Biostatistics</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>COGNATE (GE QUAN)</td>
<td>MATH 103–114 Pre-Calculus–Analysis I</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>GE HUMN</td>
<td>HUMN ELEC Humanities Elective</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE PHIL/T/RS</td>
<td>PHIL 120–T/RS 121 Intro to Philosophy–Theology I</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE PHED</td>
<td>PHED ELEC Physical Education</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>16</td>
<td>16</td>
</tr>
<tr>
<td><strong>Third Year</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAJOR</td>
<td>CHEM 340 Environmental Chemistry</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MAJOR</td>
<td>CHEM 370 Instrumental Analysis</td>
<td></td>
<td>5</td>
</tr>
<tr>
<td>MAJOR</td>
<td>ESCI ELEC Environmental Science Elective</td>
<td>3-5</td>
<td></td>
</tr>
<tr>
<td>GE S/BH</td>
<td>PS 230 Environmental Laws &amp; Regulations</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE S/BH</td>
<td>ECO 103 Economics of Env. Issues</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE PHIL/T/RS</td>
<td>PHIL 210–T/RS 122 Ethics–Theology II</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE HUMN</td>
<td>HUMN ELEC Humanities Elective</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE ELECT</td>
<td>PHYS 120–121 General Physics</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td></td>
<td>16</td>
<td>18-20</td>
</tr>
<tr>
<td><strong>Fourth Year</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAJOR</td>
<td>ESCI ELEC Environmental Science Electives</td>
<td>6-10</td>
<td>3</td>
</tr>
<tr>
<td>MAJOR</td>
<td>ESCI 480 or 493 Research OR Intern. in Env. Sci.</td>
<td>1.5</td>
<td></td>
</tr>
<tr>
<td>MAJOR</td>
<td>ESCI 481 or 494 Research OR Intern. in Env. Sci.</td>
<td>1.5</td>
<td></td>
</tr>
<tr>
<td>MAJOR</td>
<td>ESCI 440–441 Topics in Environmental Sci.</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>GE PHIL/T/RS</td>
<td>PHIL 300–T/RS 122 Intro to Philosophy–Theology I</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE HUMN</td>
<td>HUMN ELEC Humanities Elective</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE S/BH</td>
<td>S/BH ELEC Social/Behavioral Elective</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE ELECT</td>
<td>FREE ELEC Free Electives</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td></td>
<td>14.5-18.5</td>
<td>17.5</td>
</tr>
<tr>
<td><strong>TOTAL:</strong></td>
<td></td>
<td>130–137</td>
<td>CREDITS</td>
</tr>
</tbody>
</table>

1 Students entering exempt from MATH 103 may select a course in chemistry, biology, physics or math.

2 Or PHYS 140-141: Elements of Physics I-II.

ESCI 440–441 2 cr.
Topics in Environmental Science
(Prerequisite: senior standing in ESCI major or permission of instructor) One credit/semester. Discussions of current and significant environmental science issues.

ESCI 480–481 3 cr.
Internship in Environmental Science
(Prerequisite: senior standing in ESCI major or permission of instructors) 1.5 credits/semester. 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 493–494 3 cr.
Research in Environmental Science
(Prerequisite: senior standing in ESCI major or permission of instructor) 1.5 credits/semester. Individual study and research of a specific environmental problem. Mentored by a Biology or Chemistry faculty member.

FOREIGN LANGUAGES AND LITERATURES

Faculty
Linda Ledford-Miller, Ph.D., Chair
Robert A. Parsons, Ph.D.
Virginia A. Picchietti, Ph.D.
Sergio Ramirez-Franco, Ph.D.
Jamie H. Trinka, Ph.D.
Joseph P. Wilson, Ph.D.
Habib K. Zanana, Ph.D.

Mission Statement
The mission of the Department of Foreign Languages and Literatures 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. Foreign 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 Foreign Languages and Literatures at The University of Scranton adheres to the Ignatian principle that foreign language education is a vital part of the student’s intellectual formation. Foreign language acquisition is a vital part of the liberal arts education that is at the core of Jesuit education. Proficiency in foreign 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 fellow. 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 Department of Foreign Languages and Literatures is designed to enable students to read, write, speak and comprehend one or more foreign languages; to think and express themselves logically, precisely and critically in one or more foreign languages; to acquire skills in literary criticism by reading representative foreign authors; to gain insight into the evolution of the culture and civilization of foreign peoples as reflected in their literature.

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.

Foreign 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. Modern Language majors normally take at least 12 credits in a second language, either modern or classical, as their cognate. 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 foreign-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 foreign study 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.

Minors in Language
Arabic, 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.
Course Descriptions – Modern Languages

Students may not take the elementary level of their native language.

**Arabic**

**ARAB 101-102** 6 cr.

(CF) Elementary Arabic

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. (ARAB 101 is normally the prerequisite to 102.)

**ARAB 211-212** 6 cr.

(CED) Intermediate Arabic*

(Prerequisites: ARAB 101-102 or equivalent, as determined by instructor) Completion of ARAB 212 satisfies one semester of the cultural diversity requirements. A continuation of elementary Arabic. Students will acquire more vocabulary and grammar and engage in more speaking, reading and writing. (ARAB 211 or its equivalent is normally the prerequisite to 212.)

**ARAB 311-312** 6 cr.

(CED) Advanced Arabic*

(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. (ARAB 311 or its equivalent is normally the prerequisite to 312.)

**Chinese**

**CNS 101-102** 6 cr.

(CF) Elementary Chinese*

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. (CNS 101 is normally the prerequisite to 102.)

**French**

**FREN 101-102** 6 cr.

(CF) Elementary French*

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. (FRN 101 is normally the prerequisite to 102.)

**FREN 203** 3 cr.

French Cultural Heritage

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 211-212** 6 cr.

(CED) Intermediate French*

(Prerequisites: FREN 101-102 or equivalent, as determined by placement exam) Completion of FREN 212 satisfies one semester of the cultural diversity requirements. Designed to give greater scope and depth to the student’s knowledge of the French language and Francophone culture. Taught in French. (FREN 211 or its equivalent is normally the prerequisite to 212.)

**FREN 311** 3 cr.

(CED) French Conversation*

(Prerequisites: FREN 211-212 or equivalent, as determined by placement exam) Intensive French conversation, emphasizing cross-cultural comparisons and development of self-expression in French. Taught in French.

**FREN 312** 3 cr.

(CFW) French Composition*

(Prerequisites: FREN 211-212 or equivalent, as determined by placement exam) An intensive course in writing in French, stressing grammar, writing analysis and composition. Taught in French.

**FREN 313** 3 cr.

(CL, D) Survey of French Literature I

(Prerequisites: FREN 311-312 or equivalent) A review of French literature from the chantou de geste to the 18th century.

**FREN 314** 3 cr.

(CL, D) Survey of French Literature II

(Prerequisites: FREN 311-312 or equivalent) A review of French literature of the 19th and 20th centuries.

**Portuguese**

15 credits consisting of PORT 110, PORT 210, and two advanced Portuguese courses.

Minors in Arabic, Japanese and Russian are sometimes possible, depending upon the availability of courses in these languages or through study abroad. 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 open to students who have studied two or more years of the same language in high school. Exceptions to this policy must be approved by the Department of Modern Languages.

Major in International Language-Business

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 130 credits stipulated for the program, unless there is room in the free area.

* Includes activities inside and/or outside the classroom that involve Language Learning Center (language lab) resources.
Foreign Language 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 LANG 101–102 or 211–212  Second Modern or Classical Language  3  3
GE SPCH–WRTG  COMM 100–WRTG 107  Public Speaking–Composition  3  3
GE QUAN QUAN ELECT  Quantitative Reasoning Elective  3
GE C/JL C/JL 102  Computing and Information Literacy  3  3
GE PHIL-T/RS PHIL 120–T/RS 121  Intro. to Philosophy–Theology I  3  3
GE FSEM–PHED INTD 100–PHED ELECT  Freshman Seminar–Physical Education  1  1

**Second Year**
MAJOR LANG 311–3122  Adv. Conversation/Comp  3  3
COGNATE LANG 211–212 or 311–312  Second Modern or Classical Language  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–T/RS 122  Ethics–Theology II  3  3
GE PHED PHED ELECT  Physical Education  1

**Third Year**
MAJOR LANG ELECT2  Advanced Lang. Electives  6  6
COGNATE COGNATE ELECT  Cognate Electives  3  3
GE PHIL-T/RS  PHIL-T/RS ELECT  Philosophy or T/RS Elective  3
GE S/BH S/BH ELECT  Social/Behavioral Electives  3  3
GE ELECT FREE ELECT  Free Electives  3  3

**Fourth Year**
MAJOR LANG ELECT  Advanced Lang. Electives  3  3
COGNATE COGNATE ELECT  Cognate Electives  3  3
GE ELECT FREE ELECT  Free Electives  6  6

**TOTAL: 130 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 Spanish majors will take SPAN 320–321 and three of the following four courses: SPAN 313, 314, 330, 331.

---

**FREN 425** 3 cr.
Eighteenth-Century French Studies
(Prerequisites: FREN 311–312 or equivalent)
The Enlightenment from 1715 to 1789.

**FREN 427** 3 cr.
Nineteenth-Century French Novel
(Prerequisites: FREN 311–312 or equivalent)
The development of prose narration as reflected in the literary movements of the age.

**FREN 429** 3 cr.
Nineteenth-Century French Poetry
(Prerequisites: FREN 311–312 or equivalent)
The development of poetic forms from the romantic to the symbolist movement inclusively.

**FREN 430** 3 cr.
French Women Writers
(Prerequisites: FREN 311–312 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 Studies Concentration section.)

**FREN 431** 3 cr. (D,W)
Twentieth-Century French Novel
(Prerequisites: FREN 311–312 or equivalent)
The development of prose narration from the Dreyfus case to the present.

**FREN 432** 3 cr.
French Short Story
(Prerequisites: FREN 311–312 or equivalent)
Principal practitioners of the short story in French, including contemporary authors.

**FREN 433** 3 cr.
Twentieth-Century French Drama
(Prerequisites: FREN 311–312 or equivalent)
The development of dramatic forms from the Théâtre Libre to the present.

---

**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  Inter. or Conversation/Composition  3  3
COGNATE LANG 101–102 or 211–212  Second Language  3  3
GE SPCH–WRTG  COMM 100–WRTG 107  Composition–Public Speaking  3  3
GE C/JL C/JL 102  Computing and Information Literacy  3
GE QUAN QUAN ELECT  MATH 106 or 107  Quantitative Methods I or II  3
GE PHIL-T/RS PHIL 120–T/RS 121  Intro. to Philosophy–Theology I  3  3
GE FSEM–PHED INTD 100–PHED ELECT  Freshman Seminar–Physical Education  1  1

**Second Year**
MAJOR LANG 311–3122  Conversation/Composition  3  3
COGNATE ACC 253  Financial Accounting  3
COGNATE LANG 211–212 or 311–312  Second Modern or Classical Lang.  3  3
GE HUMN HUMN ELECT  Humanities Elective  3
GE S/BH S/BH ELECT  Ethics–Theology II  3  3
GE PHIL-T/RS PHIL 210–T/RS 122  Ethics–Theology II  3  3
GE PHED PHED ELECT  Physical Education  1

**Third Year**
MAJOR LANG 321–3222  Advanced Stylistics  3  3
MAJOR LANG ELECT  Advanced Language Electives  3  3
MAJOR MGT 351  Principles of Management I  3
MAJOR ECOIB 351  Environment of Int'l Bus.  3
MAJOR FIN 351  Intro. to Finance  3
GE ELECT FREE ELECT2  Free Electives  3  3
GE NSCI NSCI ELECT  Natural Science Electives  3  3
GE PHIL-T/RS PHIL-T/RS ELECT  Philosophy or T/RS Elective  3  3

**Fourth Year**
MAJOR LANG 319  Business Language  3
MAJOR LANG ELECT  Advanced Language Electives  6  3
MAJOR MKT 351  Intro. to Marketing  3
MAJOR INT ELECT  One of MGT 475, MKT 475, ECO 375, FIN 475, IB 476, IB 477  3
GE HUMN HUMN ELECT  Humanities Elective  3
GE ELECT FREE ELECT2  Free Electives  3  6

**TOTAL: 130 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 320–321, and three of the following four courses: SPAN 313, 314, 330, 331 in their advanced language electives area.

3 PS 212, PS 240 and JCC 254 are recommended GE electives.

4 A course focusing on the ethics of business is recommended.

**FREN 434** 3 cr.
French Novel into Film
(Prerequisites: FREN 311–312 or equivalent)
Examination of the transformations effected in major French novels adapted for the screen, and exploration of alternative solutions to the problems posed.

**FREN 435** 3 cr.
The French Theater
(Prerequisites: FREN 311–312 or equivalent)
An inquiry into the various forms of the French theater through a study of significant representative works from different periods.

**FREN 437** 3 cr.
Francophone African Literature
(Prerequisites: FREN 311–312 or equivalent)
A study of Francophone African Literature from...
the Maghreb to the African diaspora, with emphasis on main literary currents, ideology, political climates, linguistic traditions, and literary manifestations in each country.

FREN 439 The Craft of Translation
(Prerequisites: FREN 311-312 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 482-483 Guided Independent Study
(Prerequisites: FREN 311-312 or equivalent; junior or senior standing) Tutorial content determined by mentor.

German
GERM 101-102 (CF) Elementary German*
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. (GERM 101 is normally the prerequisite to 102.)

GERM 211-212 (CED) Intermediate German*
(Prerequisites: GERM 101-102 or equivalent) Completion of GERM 212 satisfies one semester of the cultural diversity requirements. Reading from modern authors of moderate difficulty. Oral and written exercises. Systematic review of German grammar. (GERM 211 or its equivalent is normally the prerequisite to 212.)

GERM 295 (D) German Culture and Language
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. Team-taught by University faculty from several academic departments.

GERM 311-312 (CF/W) Advanced German Composition and Conversation*
(Prerequisites: GERM 211-212 or equivalent) Selected texts in prose and poetry. Advanced practice in conversation and composition. Survey of German grammar.

GERM 313-314 (CL,D) Survey of German Literature and Culture
(Prerequisites: GERM 311-312 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.

GERM 319 Business German*
(Prerequisites: GERM 311-312 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.

GERM 321-322 (W) Advanced Stylistics*
(Prerequisites: GERM 311-312 or equivalent) Advanced study of syntax and semantics aimed at the development of stylistic sensitivity. Inter-disciplinary textual analyses (business and commercial German, communications media, the sciences and humanities) for further practice in composition and conversation.

GERM 421 German Classicism and Romanticism
(Prerequisites: GERM 311-312 or equivalent) A study of the literature of the 18th (Goethe, Schiller, Holderlin) and early 19th centuries (Kleist, Hoffmann, Novalis) in their Classical and Romantic contexts.

GERM 423 Realism and Naturalism
(Prerequisites: GERM 311-312 or equivalent) A study of the works of late 19th-century authors, such as Storm, Fontane and Keller.

GERM 425 German Literature up to 1945
(Prerequisites: GERM 311-312 or equivalent) An in-depth study of such authors as Brecht, Mann, Kafka and Rilke.

GERM 427 Postwar German Literature
(Prerequisites: GERM 311-312, or equivalent) Concentration on contemporary authors such as

Frith, Durrenmatt, Grass and Boll, as well as representative authors from the former East Germany.

GERM 482-483 Variable Credit Independent Study
(Prerequisites: GERM 311-312 or equivalent; junior or senior standing) Tutorial content determined by mentor.

Italian
ITAL 101-102 (CF) Elementary Italian*
Introduction to the Italian language. Designed for beginners. (ITAL 101 is normally the prerequisite to 102.)

ITAL 211-212 (CED) Intermediate Italian*
(Prerequisites: ITAL 101-102 or equivalent) 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. (ITAL 211 or its equivalent is normally the prerequisite to 212.)

ITAL 221E/221F (CL,D,W) Italian Women's Writing
This course addresses women's voices and experiences in 20th-century Italian prose, poetry, theatre and film. Not all the artists subscribe to a feminist ideology, but their works share an interest in issues concerning women. Students examine the styles, themes and historical contexts of the primary works. ITAL 221E is taught in English and cannot count toward the major or minor; ITAL 221F is taught in Italian and may count toward the major or minor by arrangement with the professor.

ITAL 222E/222F (D) Envisioning Italy From Novel to Film: The Case of Neorealism
This course addresses the way in which authors and film makers have envisioned Italy in the Neorealist tradition. Students will analyze neorealist novels and their cinematic adaptations to determine similarities and differences in the artists' visions and interpretations of Italian society. ITAL 222E is taught in English and cannot count toward the major or minor; ITAL 222F is taught in Italian and may count toward the major or minor by arrangement with the professor.

ITAL 233E/233F Italian Cinema: From Origins to Present
Course examines Italian cinema from the silent era to the present. Focus on the impact of historical events on the film industry and on the transformation in style and content in the reaction to specific moments in Italian history. Films with subtitles. ITAL 233E is taught in English and cannot count toward the major or minor; ITAL 233F is taught in Italian and may count toward the major or minor by arrangement with the professor.

ITAL 295 (D) Italian Culture and Society
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. The course includes travel to Italy.

ITAL 311-312 (CED,W) Advanced Italian Composition and Conversation*
(Prerequisites: 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.

ITAL 313 (CL) Survey of Italian Literature I
(Prerequisites: ITAL 311-312 or equivalent) This course, conducted in Italian, introduces students to 19th- and 20th-century Italian literature and to significant literary movements and figures from these periods.

ITAL 314 (CL) Survey of Italian Literature II
(Prerequisites: ITAL 311-312 or equivalent) This course, conducted in Italian, introduces students to Italian literature from the medieval period to the 18th century. It focuses on significant literary movements and figures from these periods.

Japanese
(Additional course work is available by arranging independent and/or foreign study)

JPN 101-102 (CF) Elementary Japanese*
Development of the fundamental skills, listening, speaking, reading and writing, with emphasis on

* Includes activities inside and/or outside the classroom that involve Language Learning Center (language lab) resources.
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. (JPN 101 is normally the prerequisite to 102.)

JPN 211-212 3 cr.
Intermediate Japanese* (Prerequisite: JPN 101-102 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. (JPN 211 or its equivalent is normally the prerequisite to 212.)

Portuguese (Additional course work is available by arranging independent and/or foreign study)

These courses meet the cognate language requirement and may serve as the basis for a 15-credit minor in Portuguese.

PORT 110 4.5 cr.
(CF) Intensive Elementary Portuguese* 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. Offered fall only, even years.

PORT 210 4.5 cr.
(CED) Intensive Intermediate Portuguese* (Prerequisite: PORT 110 or equivalent) A continuation of elementary Portuguese. Students will refine, through oral and written activities, literary and other readings, and video, the skills learned in PORT 110. Cultural knowledge of the Lusophone world will also be further developed. Meets four days a week. Offered spring only, odd years.

Russian (Additional course work is available by arranging independent and/or foreign study)

RUSS 110 5 cr.
(CF) Intensive Elementary Russian* 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. Offered fall only, even years.

RUSS 210 5 cr.
(CF) Intensive Intermediate Russian* (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. Offered spring only, odd years.

RUSS 295 6 cr.
Contemporary Russian Culture and Language (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.

Spanish

SPAN 101-102 6 cr.
(CF) Elementary Spanish* Fundamentals of grammar, pronunciation, conversation; suitable readings and written exercises. Designed primarily for students with little or no background in the Spanish language. (SPAN 101 is normally the prerequisite to 102.)

SPAN 203 3 cr.
(CL,D) Topics in Latin American Cultural Heritage This course aims to develop understanding of the culture, literature and civilization of Latin America (i.e., Brazil and Spanish America). Lectures, discussions and readings in English.

SPAN 211-212 6 cr.
(CED) Intermediate Spanish* (Prerequisites: SPAN 101-102 or equivalent, as determined by placement exam) Completion of SPAN 212 satisfies one semester of the cultural diversity requirements. Grammatical review, written and oral composition with selected cultural readings of intermediate difficulty. (SPAN 211 or its equivalent is normally the prerequisite to 212.)

SPAN 295 6 cr.
(CF,S) Contemporary Mexican Culture and Language* (Prerequisite: SPAN 211 or higher) An intensive travel course to Guadalajara, Mexico: 3 credits in Humanities (foreign language area), 3 credits in the social sciences (political science area), and cultural diversity credit. Team taught by University faculty from the departments of Foreign Languages and Political Science with assistance from Mexican faculty at UNIV.
(Also listed as PS 295.)

SPAN 296 3 cr.
(CL,D) Topics in the Culture, Civilization, and Literature of Latin America 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 310 3 cr.
Medical Spanish* (Prerequisites: SPAN 311 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.

SPAN 311 3 cr.
(CED) Spanish Conversation* (Prerequisites: SPAN 211-212 or equivalent, as determined by placement exam) Reading-based conversation stressing development of self-expression in Spanish. Practice in oral composition.

SPAN 312 3 cr.
(CF,W) Spanish Composition* (Prerequisite: SPAN 311 or equivalent) Intensive writing practice stressing grammar, writing analysis, and composition.

SPAN 330 3 cr.
(CL,D) History of Spanish Literature (Prerequisite: SPAN 200) Study of Spanish literature from Cantar de Mio Cid to 20th century, with emphasis on main literary currents in each century.

SPAN 331 3 cr.
(CL,D) Survey of Spanish-American Literature (Prerequisite: SPAN 320) A survey of Spanish-American literature from the 17th century to the present, with representative readings from each of the principal cultural areas.

SPAN 335 3 cr.
(D) Service and the Hispanic Community (Prerequisites: SPAN 311-312 or equivalent) Focus on Hispanic cultures and traditions, the immigrant experience and cultural displacement. Each student, with assistance from local social service agencies, Collegiate Volunteers and the course professor, develops and carries out a service project to the local Hispanic community involving 40 to 45 hours of service work.

* Includes activities inside and/or outside the classroom that involve Language Learning Center (language lab) resources.

** Includes activities inside and/or outside the classroom that involve Language Learning Center (language lab) resources.
Course Descriptions – Classical Languages

**Greek**

**GRK 111-112** 6 cr.
(CF) Elementary Greek
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 notation with Hebrew.

**GRK 205** 3 cr.
(D) Legacy of Greece and Rome
Survey of the artistic and cultural treasures of classical Greece and Rome, with a focus on their enduring legacy in our own civilization.

**GRK 211-212** 6 cr.
(CF) Intermediate Greek

**GRK 213** 3 cr.
(CL,D,W) Classical Greek Literature and Mythology
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** 3 cr.
Ancient Civilization: Greece
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 295** 3 cr.
(D) Classic and Contemporary Greek Culture
Travel course (nine days) during the Spring Break. A study of contemporary and classical Greek culture with a focus on the Greek legacy in our own Western civilization. In Greece, students visit Athens, the Acropolis, National Archeological Museum, Corinth, Mycenae, Epidaurus, Olympia, Delphi, and three Greek islands. Additionally, students attend 20 regularly scheduled classes during the semester.

**GRK 311-312** 3-6 cr.
Readings in Greek Literature
(Prerequisites: GRK 211-212 or equivalent) Selections from Greek writers to suit students' special interests.

**Hebrew**

**HEBR 101-102** 6 cr.
(CF) Biblical Hebrew
(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 notation with Greek. (Also listed as T/RS 284.)

**Latin**

**LAT 111-112** 6 cr.
(CF) Elementary Latin
An intensive course in the fundamentals of Latin reading and composition.

**LAT 207** 3 cr.
(CL,D,W) Latin-American Literature
A survey in English of modern and contemporary Latin American writers.

**LAT 208** 3 cr.
(CL,D) French Masterpieces in English Translation
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.

**LAT 209** 3 cr.
(CL,D) Masterworks of Russian and Slavic Literature
A survey of major literary achievements of Slavic peoples, including Dostoevsky and Tolstoy. No knowledge of Slavic languages is required. All readings and lectures are in English.

**LAT 384** 3 cr.
(CL,D) Special Topics in American Minority Literature
This course examines a particular minority group in American society through texts written...
Foundation of the Department
Minor in History

Details of the Department’s Success in This Area

B.A. and M.A. Degrees Within a Four-Year Period

Catalog Become Continuing Education and to the Section on the College of Graduate and Continuing Education

Overview

The department aims: (1) to train the student in solid historical methodology; (2) to present history as the study of interdependent human activities and concrete events which have social significance; (3) to engender an intelligent and critically sympathetic understanding of various civilizations and cultures.

Outstanding students are eligible for consideration in the Combined Bachelor/Master’s Degree program (please refer to the section on the College of Graduate and Continuing Education and to the Graduate Studies Catalog for specifics of the program). Through careful utilization of intersession and summer sessions, it is possible to complete both the B.A. and M.A. degrees within a four-year period. Contact the chair or the graduate-program director of the department for additional information.

See the Pre-Law section in the catalog for details of the department’s success in this area.

Minor in History

A minor in History (18 credits) should include HIST 110 and 111 or PS 130 and 131 plus four additional courses from the following: PS 212, PS 213, PS 217, PS 218, PS 219, PS 221, PS 222, PS 295, PS 318, PS 319, PS 328, PS 330, PS 331, PS 332, PS 338; HIST 125, HIST 126, HIST 211, HIST 213, HIST 214, HIST 215, HIST 219, HIST 220, HIST 226, HIST 295, HIST 335, HIST 338, HIST 339, and GEOG 217.

Course Descriptions

GEOG 134 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 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.

HIST 110-111 History of the United States 6 cr.
The United States from the time of its European beginnings to the present with special emphasis on the history of Pennsylvania; colonial origins to Reconstruction; Gilded Age to the modern era.

HIST 120-121 Europe, 1500 to the Present 6 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.

International Studies

A major in International Studies seeks to provide the student with a full recognition and understanding of the multitudinous forces which shape the contemporary world—nationalism, wars, political and economic ideologies, cultural differentials, and modern technology. Such a broad knowledge and understanding of world affairs can be utilized in careers in teaching, international business, the legal profession, journalism, the Foreign Service of the United States and other government agencies.

A minor in International Studies (18 credits) should include HIST 110 and 111 or PS 130 and 131 plus four additional courses from the following: PS 212, PS 213, PS 217, PS 218, PS 219, PS 221, PS 222, PS 295, PS 318, PS 319, PS 328, PS 330, PS 331, PS 332, PS 338; HIST 125, HIST 126, HIST 211, HIST 213, HIST 214, HIST 215, HIST 219, HIST 220, HIST 226, HIST 295, HIST 335, HIST 338, HIST 339, and GEOG 217.

History Curriculum

<table>
<thead>
<tr>
<th>Department and Number</th>
<th>Descriptive Title of Course</th>
<th>Fall Cr.</th>
<th>Spr. Cr.</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAJOR HIST 110-111</td>
<td>United States History</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>MAJOR HIST 120-121</td>
<td>Europe: 1500 to Present</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE WRTG-SPCH WRTG 107-COMM 100</td>
<td>Composition–Public Speaking</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE C/JL</td>
<td>C/JL 102</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GE QUAN</td>
<td>QUAN ELECT</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GE PHIL-T/RS PHIL 120-T/RS 121</td>
<td>Quantitative Reasoning</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE FSEM INTD 100</td>
<td>Introduction to Philosophy–Theology I</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>GE PHED</td>
<td>PHED ELECT</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Second Year

MAJOR HIST 140 History Electives 3 cr.

MAJOR HIST ELECT History Electives 3 cr.

COGNATE COGNATE ELECT Cognate Electives 3 cr.

GE S/BH S/BH ELECT Social/Behavioral Electives 3 cr.

GE PHIL-T/RS PHIL 120-T/RS ELECT Ethics–Theology II 3 cr.

GE PHED PHED ELECT Physical Education 1 cr.

Third Year

MAJOR HIST ELECT History Electives 6 cr.

COGNATE COGNATE ELECT Cognate Electives 3 cr.

GE NSCI NSCI ELECT Natural Science Electives 3 cr.

GE HUMN HUMN ELECT Humanities Electives 3 cr.

GE ELECT FREE ELECT Free Electives 3 cr.

GE PHIL-T/RS PHIL 120-T/RS ELECT Philosophy or T/RS Elective 3 cr.

Fourth Year

MAJOR HIST 490 or 491 Seminar Elective 3 cr.

COGNATE COGNATE ELECT Cognate Electives 6 cr.

GE ELECT FREE ELECT Free Electives 3 cr.

1-3 15 15

TOTAL: 130 CREDITS

International Studies

A major in International Studies seeks to provide the student with a full recognition and understanding of the multitudinous forces which shape the contemporary world—nationalism, wars, political and economic ideologies, cultural differentials, and modern technology. Such a broad knowledge and understanding of world affairs can be utilized in careers in teaching, international business, the legal profession, journalism, the Foreign Service of the United States and other government agencies.

A minor in International Studies (18 credits) should include HIST 110 and 111 or PS 130 and 131 plus four additional courses from the following: PS 212, PS 213, PS 217, PS 218, PS 219, PS 221, PS 222, PS 295, PS 318, PS 319, PS 328, PS 330, PS 331, PS 332, PS 338; HIST 125, HIST 126, HIST 211, HIST 213, HIST 214, HIST 215, HIST 219, HIST 220, HIST 226, HIST 295, HIST 335, HIST 338, HIST 339, and GEOG 217.

Course Descriptions

GEOG 134 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 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.

HIST 110-111 History of the United States 6 cr.
The United States from the time of its European beginnings to the present with special emphasis on the history of Pennsylvania; colonial origins to Reconstruction; Gilded Age to the modern era.

HIST 120-121 Europe, 1500 to the Present 6 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 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 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.
International Studies Curriculum

First Year

<table>
<thead>
<tr>
<th>Department and Number</th>
<th>Descriptive Title of Course</th>
<th>Fall Cr.</th>
<th>Spc. Cr.</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAJOR</td>
<td>HIST 110–111</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>OGNATE</td>
<td>PS 130–131</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>OGNATE</td>
<td>LANG 101–102 or 211–212</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE WRTG–SCH</td>
<td>WRTG 107–COMM 100</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE C/IL</td>
<td>C/IL 102</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE QUAN</td>
<td>QUAN ELECT</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE FSEM</td>
<td>INTO 100</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>GE PHED</td>
<td>PHED ELECT</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

Second Year

<table>
<thead>
<tr>
<th>Department and Number</th>
<th>Descriptive Title of Course</th>
<th>Fall Cr.</th>
<th>Spc. Cr.</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAJOR</td>
<td>HIST 120–121</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>MAJOR</td>
<td>PS 212</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>MAJOR</td>
<td>History or PS ELECT¹</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>MAJOR</td>
<td>GEOG 134</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>OGNATE</td>
<td>LANG</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE PHIL–T/RS</td>
<td>PHIL 120–T/RS 121</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE ELECT</td>
<td>FREE ELECT</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE PHED</td>
<td>PHED ELECT</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

Third Year

<table>
<thead>
<tr>
<th>Department and Number</th>
<th>Descriptive Title of Course</th>
<th>Fall Cr.</th>
<th>Spc. Cr.</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAJOR</td>
<td>HIST or PS ELECT¹</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE S/BH</td>
<td>ECO 153–154</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE SSCI</td>
<td>SSCI ELECT</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE HUMN</td>
<td>HUMN ELECT</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE ELECT</td>
<td>FREE ELECT</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE PHIL–T/RS</td>
<td>PHIL 210–T/RS 122</td>
<td>3</td>
<td>3</td>
</tr>
</tbody>
</table>

Fourth Year

<table>
<thead>
<tr>
<th>Department and Number</th>
<th>Descriptive Title of Course</th>
<th>Fall Cr.</th>
<th>Spc. Cr.</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAJOR</td>
<td>IS 390–ELECT</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>MAJOR</td>
<td>History or PS ELECT¹</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>OGNATE</td>
<td>COGNATE ELECT</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE ELECT</td>
<td>FREE ELECT</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE PHIL–T/RS</td>
<td>PHIL 120–T/RS ELECT</td>
<td>3</td>
<td>3</td>
</tr>
</tbody>
</table>

TOTAL: 130 CREDITS

¹ Major electives to be selected from PS 213, 217, 218, 219, 221, 222, 229, 318, 319, 328, 330, 331, 332, 338; HIST 125, 226, 221, 213, 214, 215, 219, 220, 226, 295, 335, 358, 359, GEOG 217, HIST 149 or PS 246 recommended.

HIST 211                    3 cr.
The Third World: Empire to Independence
A study of the developing nations with the developed nations in the contemporary world.

HIST 212                    3 cr.
(D) Rebels, Rogues, and Reformers
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, Car- Tonache, Pancho Villa, Jesse James, Che Guevara and others will be considered.

HIST 213                    3 cr.
(Ch,D,W) Gender and Family in Latin America
(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 life cycle, and illicit sexuality will be highlighted. Individual units will examine machismo, marianism, relations of power and women in the workplace. Distinctions will be made according to race and class.

HIST 214                    3 cr.
(Ch,D,W) History of Contemporary World Politics
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                    3 cr.
(Ch,D,W) Church and Society in Latin America
(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                    3 cr.
(Ch,D) Race in American History
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" law; the Ku Klux Klan; black migration of the 20th century; African-American community life; and the civil rights struggle.

HIST 217                    3 cr.
(Ch,D) History of American Catholicism
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                    3 cr.
The World at War, 1939-45
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                    3 cr.
(Ch,D) Modern World History
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                    3 cr.
(Ch) War and Modern Society
(Formerly H/PS 215) Role of military force in international relations; historical background focusing on wars, American and European, of 19th and 20th centuries; theories of function of war; arms control and deterrence of war.

HIST 221                    3 cr.
(Ch,D) The American West
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                    3 cr.
History of American Presidential Elections
A study of the candidates, issues and campaigns in American Presidential elections from Washington to Kennedy. The course will also examine the evolution of the electoral process and the relationship between political parties.

HIST 223                    3 cr.
Introduction to Irish History
An introduction to Irish History which surveys the principal political, social, economic and intellectual changes in Irish life since the time of the pre-Celtic peoples. Topics will include: Celtic civilization; the coming of Christianity; the Norman invasion; the English connection; Irish nationalism; and the "troubles" in Northern Ireland.

HIST 224                    3 cr.
(Ch,D) Ethnic and Racial Minorities in Northeastern Pennsylvania
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                    3 cr.
Imperial Russia
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                    3 cr.
Russian from Revolution to Revolution
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 pre-revolutionary 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 3 cr.
(D) The Civilization of Islam
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 228-229 6 cr.
Ancient History
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 Greek; republican and imperial Rome; the origins of Christianity.

HIST 230-231 6 cr.
Medieval History
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 3 cr.
(CH) England, 1485 to 1714
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 3 cr.
(CH) England, 1714 to Present
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 3 cr.
Modern Germany: Unification and Empire
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 3 cr.
Modern Germany: The Twentieth Century
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 Germanies and the “economic miracle.”

HIST 238 3 cr.
(CH,D) History of American Women: From Colonialization to Mid-Nineteenth Century
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 3 cr.
(CH,D) History of American Women: From Mid-Nineteenth Century to the Present
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 3 cr.
(D) Modern Italy
This course will examine major developments in Italian history from the Napoleonic invasion until current crises of the Republic. Important themes for discussion and inquiry will include the unification movement, the liberal state, Fascism and anti-Fascist resistance, the postwar Republic, cultural and social change, and economic development.

HIST 241 3 cr.
Law in the Western Tradition
A survey of ideas about law in Western civilization from antiquity until the Civil War. Emphasis is on the legal systems, such as the Hebrew, the Athenian, the Roman, the German, and the Catholic Church; the influence of the modern ideas about the law.

HIST 296 3 cr.
(D) Italian History and Heritage
Combines with a travel experience to introduce the student to Italy's cultural heritage and the history of the contemporary Italian republic.

HIST 310 3 cr.
Colonial America, 1607-1763
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 3 cr.
American Revolution, 1763-1789
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 3 cr.
The Early National Period of American History, 1789-1824
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 3 cr.
The Age of Andrew Jackson, 1824-1850
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 3 cr.
Civil War and Reconstruction
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 3 cr.
American Progressivism, War, and Reaction, 1900-1929
(Prerequisites: HIST 110 and 111) American society from the age of Theodore Roosevelt and Woodrow Wilson to the “New Era” of the Roaring Twenties. Topics include Progressive reform movements, World War I and cultural conflict in the 1920s.

HIST 316 3 cr.
(CH) From Depression to Cold War: 1929-1960
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 3 cr.
History of United States Immigration
(Prerequisites: HIST 110 and 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 318 3 cr.
A History of American Assimilation
(Prerequisites: HIST 110 and 111) The history of assimilation (or adjustment) of immigrants to American life. Nationalism from pre-Civil War days to the 1920s. The “Old Immigration” and the “New Immigration” considered in the social, political, economic, and religious contexts of their eras. Special problems of the second generation from the 1850s to the 1960s.

HIST 319-320 6 cr.
Byzantine Civilization
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 321-322 6 cr.
(CH) American Ideas and Culture
(Prerequisites: HIST 110 for HIST 321; HIST 111 for HIST 322) 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 3 cr.
The Renaissance
A study of culture in Italy from the 14th to the 16th centuries. Humanism, art, historiography and politics will be emphasized.

HIST 324 3 cr.
The Reformation
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 3 cr.
French Revolution to 1815
(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 3 cr.
Europe in the Age of Absolutism
(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 3 cr.
(CH,D,W) The African Experience in Latin America 1500-1900
(Prerequisite: One of the following – HIST 125, HIST 126, PS 219, SPAN 314, PHIL 242) Examines the experiences of Africans in the colonies and former colonies of Latin America and the Caribbean with emphasis on Spanish America and Portuguese Brazil. Units will highlight slavery, the response of slaves to subjugation; the role of free Africans and men and women of color, intermarriage, religion and music.

HIST 330 3 cr.
Europe, 1815-1914
(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 3 cr.
(CH) Recent U.S. History: 1960 to the Present
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 333-334 6 cr.
Twentieth-Century Europe
World War I; Treaty of Versailles; Russia becomes the USSR; the European struggle for security; Italian Fascism; rise of Nazi Germany; Asia between the two wars; World War II; loss of colonial empires in Africa and Asia; development of the Cold War; Marshall Plan and NATO.

HIST 335 3 cr.
World War II, Cold War and Detente
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 3 cr.
History of American Law
(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 3 cr.
English Constitutional and Legal History
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 338-339 6 cr.
American Diplomatic History
(Prerequisites: HIST 110-111) A study of American diplomatic history and principles; The Revolution; Early American policies on isolation and expansion; The War of 1812; The Monroe Doctrine; Manifest Destiny; The Civil War; American imperialism and the Spanish-American War; Latin American diplomacy in the 20th century; World War I; attempts to preclude further war; World War II; Cold War; Contemporary problems.

HIST 340 3 cr.
History of Urban America
(Prerequisites: HIST 110-111) 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 390 3-6 cr.
History Internship
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 490 3 cr.
(W) Seminar in European History
(Restricted to senior History majors and four-year B.A./M.A. History students) An analysis of selected topics in European history from the 15th to the 20th century. Extensive readings. Historical research and writing stressed.

HIST 491 3 cr.
(W) Seminar in American History
(Restricted to senior History majors and four-year B.A./M.A. History students) An analysis of selected topics in U.S. or Latin American history from the Colonial era to the present. Extensive readings. Historical research and writing stressed.

IS 390 3 cr.
(W) Seminar in International Studies
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.

MATHEMATICS

Faculty
Jakub S. Jasinski, Ph.D., Chair
Maureen T. Carroll, Ph.D.
Steven T. Dougheretry, Ph.D.
Anthony P. Ferzola, 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.
Krayszof Plotka, Ph.D.
Thomas A. Shimkus, Ph.D.
Zhongcheng Xiong, Ph.D.

Overview
The Mathematics program balances algebra vs. analysis in its basic courses and pure vs. applied mathematics (including probability and statistics) in its advanced courses. Supporting courses balance traditional physics with contemporary computer science. Graduates have great flexibility; some continue study in mathematics or related fields, some teach, some become actuaries and some work in jobs which vary from programming to management. A student chapter of the Mathematical Association of America encourages early professionalism.

Minor in Mathematics
The Mathematics minor must include MATH 114, 221, 222, and 351 and two additional electives chosen from Mathematics courses numbered over 300 or PHYS 350.

Biomathematics
The Biomathematics major leads to employment or graduate study ranging from biostatistics through public health to medicine. The major contains four tracks: Epidemiology, Molecular Biology, Physiology, or Population Biology. Students interested in medical school should alter the standard schedule so that General Biochemistry can be elected in the third year. This may be done by attending summer sessions, by using AP credits, or – when approved by an academic advisor – by shifting General and Analytical Chemistry to the first year and Organic Chemistry to the second year.

Course Descriptions

MATH 005 3 cr.
Algebra
A study of algebra including factoring, exponents, radicals, graphing, and linear and quadratic equations. Enrollment is restricted to College of Graduate and Continuing Education students who are limited in algebra skills. Permission of the CGCE Dean is required in order to enroll in this course. Credits count only as free elective.

MATH 101 3 cr.
(Q) Mathematics Discovery
Topics exploring various aspects of mathematical reasoning and modeling are selected to bring the excitement of contemporary mathematical thinking to the nonspecialist. Examples of topics covered in the past include fractal geometry, chaos theory, number theory, and non-Euclidean geometry. Not open to students with credit for or enrolled in any Mathematics course numbered above 101.

MATH 102 3 cr.
(Q) Fundamentals of Numerical Mathematics
(Prerequisite: Not open to students with credit for, or enrolled in, MATH 103 or any mathematics course numbered above 105) 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 103  4 cr.
(Q) Pre-Calculus Mathematics
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 105  3 cr.
(Q) Fundamentals of Geometric Mathematics
(Prerequisite: Not open to students with credit for, or enrolled in, any other mathematics course numbered above 102) A study of the fundamental concepts underlying geometric mathematics and its applications. Topics include logic, sets, functions and relations, classical geometry, measurement, transformations, statistics, and analytic geometry and its relationship to algebra and functions, in addition to other topics chosen by the instructor.

MATH 106  3 cr.
(Q) Quantitative Methods I
(Prerequisite: 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 103.

MATH 107  4 cr.
(Q) Calculus I
(Prerequisite: MATH 103 or equivalent) Topics from calculus including limits, derivatives and their applications, integrals, from calculus and analytic geometry including (Prerequisite: MATH 103 or equivalent) Topics from calculus including limits, derivatives and their applications, integrals, from calculus and analytic geometry including functions, methods of integration, improper integrals, and applications. Not open to students with credit for or enrolled in MATH 103.

MATH 114  4 cr.
(Q) Calculus I
(Prerequisite: MATH 103 or equivalent) Topics from calculus and analytic geometry including limits, derivatives and their applications, integrals, and the Fundamental Theorem.

MATH 142  4 cr.
(Q) Discrete Structures
A study of symbolic logic, sets, combinatorics, mathematical induction, recursion, graph theory, and trees. Intended for Mathematics, Computer Science, and Computer Information Systems majors, but open to other qualified students.

MATH 184-284-384-484  1-4 cr.
Special Topics
Topics, prerequisites, and amount of credit will be announced prior to preregistration.

MATH 204  3 cr.
(Q) Special Topics of Statistics
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 (e.g., PSYC 210, MATH 312 or MATH 314).

MATH 221  4 cr.
Calculus II
(Prerequisite: MATH 114) Topics include: applications of the definite integral, transcendental functions, methods of integration, improper integral, parametric equations, polar coordinates, and indeterminate forms.

MATH 222  4 cr.
Calculus III
(Prerequisite: MATH 221) Topics include: infinite series, vectors, solid analytic geometry, multivariable calculus, and multiple integration.

MATH 310  4 cr.
Applied Probability and Mathematical Statistics
(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  3 cr.
Probability Theory
(Prerequisite: MATH 221) Basic concepts of probability theory, random variables and their distribution functions; limit theorems and Markov chains.

MATH 314  3 cr.
Statistics
(Prerequisite: MATH 312) Measure of central tendency, measure of dispersion, continuous random variables, expected value, moments, confidence intervals, hypothesis testing, regression, and correlation.

MATH 320  3 cr.
Chaos and Fractals
(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 topological dimension, Hausdorff, and topological dimension, L-systems, Julia and Mandelbrot sets, iterated function systems, the collage theorem, and attractors.

Mathematics Curriculum

First Year
MAJOR (GE QUAN) MATH 142–114
COGNATE CMPS 134
GE C/JI C/JI 102
GE WRTG–SPCH WRTG 107–COMM 100
GE PHIL–T/RS PHIL 120–T/RS 121
GE HUMN HUMN ELECT
GE FSEM INTD 100
GE PHED PHED ELECT

Fall Cr. 4 4 3 3 3 3 1 1
Spe. Cr. 4 4 3 3 3 3 3 3

Second Year
MAJOR MATH 221–222
MAJOR MATH 351
COGNATE (GE NSCI) PHYS 140–141
GE S/RH S/RH ELECT
GE PHIL–T/RS PHIL 210–T/RS 122
COGNATE COGNATE ELECT

Fall Cr. 4 4 3 3 3 3 3
Spe. Cr. 4 4 3 3 3 3 3

Third Year
MAJOR MATH 446–ELECT
MAJOR MATH 448–ELECT
COGNATE COGNATE ELECT
GE HUMN HUMN ELECT
GE ELECT FREE ELECT
GE PHED PHED ELECT

Fall Cr. 3 3 3 3 3 3
Spe. Cr. 3 3 3 3 3 3

Fourth Year
MAJOR MATH ELECT
COGNATE COGNATE ELECT
GE PHIL–T/RS PHIL T/RS ELECT
GE ELECT FREE ELECT

Fall Cr. 9 3 3 3
Spe. Cr. 9 3 3 3

TOTAL: 130 CREDITS

1 Elective for Mathematics majors. Major election are selected from Mathematics course numbered above MATH 300; also PHYS 350, PHYS 351, CMPS 362 or CMPS 364. A student must select an elective at least one of MATH 447 or 449, and at least two of MATH 312, 345, 460, 461. Additional courses numbered under MATH 300 may be taken as free electives but not as major electives. 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.

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.
Biomathematics Curriculum

<table>
<thead>
<tr>
<th>Department and Number</th>
<th>Descriptive Title of Course</th>
<th>Fall Cr.</th>
<th>Spr. Cr.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>First Year</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAJOR</td>
<td>MATH 114–221</td>
<td>Analysis I–II</td>
<td>4</td>
</tr>
<tr>
<td>MAJOR</td>
<td>BIOL 141–142</td>
<td>General Biology I–II</td>
<td>4.5</td>
</tr>
<tr>
<td>GE C/L</td>
<td>C/L 102</td>
<td>Computing and Information Literacy</td>
<td>3</td>
</tr>
<tr>
<td>GE SPCH–WRTG</td>
<td>COMM 100–WRTG 107</td>
<td>Public Speaking–Composition</td>
<td>3</td>
</tr>
<tr>
<td>GE PHIL–T/RS</td>
<td>PHIL 120</td>
<td>Introduction to Philosophy</td>
<td>3</td>
</tr>
<tr>
<td>GE FSEM–PHED</td>
<td>INTD 100–PHED ELECT</td>
<td>Freshman Seminar- Phys. Ed.</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Total</strong></td>
<td>15.5</td>
</tr>
<tr>
<td><strong>Second Year</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAJOR</td>
<td>MATH 222–341</td>
<td>Analysis III–Differential Equations</td>
<td>4</td>
</tr>
<tr>
<td>MAJOR</td>
<td>BIOL ELECT–BIOL 379</td>
<td>Track Electives-Biostatistics</td>
<td>4.5</td>
</tr>
<tr>
<td>COGNATE</td>
<td>CHEM 112–113</td>
<td>General &amp; Analytical Chemistry</td>
<td>4.5</td>
</tr>
<tr>
<td>GE PHIL–T/RS</td>
<td>T/RS 121–122</td>
<td>Theology I–II</td>
<td>3</td>
</tr>
<tr>
<td>GE PHIL–T/RS</td>
<td>PHIL 210</td>
<td>Ethics</td>
<td>3</td>
</tr>
<tr>
<td>GE PHED</td>
<td>PHED ELECT</td>
<td>Physical Education</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Total</strong></td>
<td>17-17.5</td>
</tr>
<tr>
<td><strong>Third Year</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAJOR</td>
<td>MATH 351–312</td>
<td>Linear Algebra–Probability</td>
<td>3</td>
</tr>
<tr>
<td>COGNATE</td>
<td>CHEM 232–233</td>
<td>Organic Chemistry I–II</td>
<td>4</td>
</tr>
<tr>
<td>COGNATE</td>
<td>PHYS 140–141</td>
<td>Elements of Physics I–II</td>
<td>4</td>
</tr>
<tr>
<td>GE HUMN</td>
<td>HUMN ELECT</td>
<td>Humanities Electives</td>
<td>3</td>
</tr>
<tr>
<td>GE ELECT</td>
<td>FREE ELECT</td>
<td>Free Electives</td>
<td>3</td>
</tr>
<tr>
<td>GE PHED</td>
<td>PHED ELECT</td>
<td>Physical Education</td>
<td>0.5</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Total</strong></td>
<td>18</td>
</tr>
<tr>
<td><strong>Fourth Year</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAJOR</td>
<td>BIOL ELECT</td>
<td>Track Elective</td>
<td>3.5</td>
</tr>
<tr>
<td>MAJOR</td>
<td>MATH 463</td>
<td>Topics in Biomathematics</td>
<td>3</td>
</tr>
<tr>
<td>GE HUMN</td>
<td>HUMN ELECT</td>
<td>Humanities Electives</td>
<td>3</td>
</tr>
<tr>
<td>GE S/BH</td>
<td>S/BH ELECT</td>
<td>Social/Behavioral Electives</td>
<td>3</td>
</tr>
<tr>
<td>GE PHIL–T/RS</td>
<td>PHIL–T/RS ELECT</td>
<td>Philosophy or T/RS Elective</td>
<td>3</td>
</tr>
<tr>
<td>GE ELECT</td>
<td>ELECTIVE</td>
<td>Free Elective</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Total</strong></td>
<td>15-17</td>
</tr>
</tbody>
</table>

TOTAL: 131.5-135.5 CREDITS


MATH 325 3 cr.
(W) History and Philosophy of Mathematics (Prerequisite: MATH 222 and either MATH 142 or a math course numbered above 300 or instructor’s permission) 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. Topic 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 3 cr.
Actuarial Mathematics (Prerequisite: MATH 221) Theory of interest, accumulation and discount, present value, future value, annuities, perpetuities, amortizations, sinking funds, and yield rates.

MATH 341 4 cr.
Differential Equations (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 3 cr.
Geometry (Prerequisite: MATH 314) Euclidean, non-Euclidean, and projective geometry. Transformations and invariants. Offered in the fall of even-numbered years only.

MATH 346 3 cr.
Number Theory (Prerequisite: MATH 114) 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 3 cr.
Linear Algebra (Prerequisite: MATH 221) Vector spaces, matrices, determinants, linear transformations, eigenvalues, eigenvectors, inner products, and orthogonality.

MATH 360 3 cr.
Coding Theory (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 3 cr.
Numerical Analysis (Prerequisite: MATH 222 and 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 362 3 cr.
Vector Calculus (Prerequisite: MATH 222, MATH 351) The calculus of scalar and vector fields and of functions defined on paths or surfaces. Implicit Function, Green’s, Stokes, and Gaus’ Theorems. Applications.

MATH 462 3 cr.
Topics in Biomathematics (Prerequisite: MATH 341 and 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 493-494 6 cr.
Undergraduate Mathematics Research 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.
**MEDIA AND INFORMATION TECHNOLOGY**

James R. Sidbury, Ph.D., Director, Computing Sciences Department

**Overview**

During the lifetime of the current college students, the means of personal and corporate communication have changed dramatically. Computers are as common as microwave ovens and Internet access is as prevalent as cable TV. Cell phones and mp3 players are common possessions of many adults and will only become more widespread in the coming years. The ability to create content for these new media is vital now and will be in the future.

The Media and Information Technology program is our response to this need. This relatively new program combines coursework from several academic departments to provide a unique opportunity for students interested in this field of study. Our coursework draws primarily from the departments of Communication, Computing Sciences and Physics/Electrical Engineering. But major electives are also available in Marketing and writing.

Because our cognate requirements are very flexible, students can tailor their programs to meet their personal interests.

If the recent past is an indication of the future, the precise technology used today will be outdated in a few years. Therefore, course requirements are distributed to address theoretical concepts and practical skills. Our goal is to produce graduates who are not only qualified for today’s marketplace, but who will also have the background to continue the lifelong learning that will be necessary to grow professionally in this field.

In addition to courses in the major, the student will develop a content area in another discipline and will be required to produce a major project in this area. This culminating project will demonstrate practical experience as well as theoretical knowledge.

Media and Information Technology students tend to focus their studies on either Web development or digital video production. Students are free to pursue other interdisciplinary interests such as online advertising or database journalism.

<table>
<thead>
<tr>
<th>Major Electives (see department pages for course descriptions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART 112 Color and Design</td>
</tr>
<tr>
<td>ART 114 Three-Dimensional Design</td>
</tr>
<tr>
<td>CMPS 312 Web Technology (or CMPS 202)</td>
</tr>
<tr>
<td>COMM 310 Mass Communication Law</td>
</tr>
<tr>
<td>COMM 318 Multimedia Presentations</td>
</tr>
<tr>
<td>COMM 324 Computer-assisted Newswriting</td>
</tr>
<tr>
<td>MKT 370 Interactive Marketing (prerequisite: MKT 351)</td>
</tr>
<tr>
<td>MIT 310 E-Research: Information-seeking Skills and Strategies</td>
</tr>
<tr>
<td>MIT 315 Database Management for Web Applications</td>
</tr>
<tr>
<td>MIT 322 Two-Dimensional Computer Animation Techniques</td>
</tr>
<tr>
<td>MIT 324 3D Computer-generated Animation/Content</td>
</tr>
<tr>
<td>MIT 481 Internship in Information Technology</td>
</tr>
<tr>
<td>PHYS 103 Seeing the Light</td>
</tr>
<tr>
<td>PHYS 108 New York Times Physics</td>
</tr>
<tr>
<td>PHYS 113 Science of Photography</td>
</tr>
<tr>
<td>WRTG 211 Technical and Business Writing</td>
</tr>
<tr>
<td>WRTG 218 Writing the Web</td>
</tr>
</tbody>
</table>

**Course Descriptions**

**MIT 310 E-Research: Information-seeking Skills and Strategies**

This course concentrates on the use of the Internet for research in a variety of fields, emphasizing online research techniques and effective online search strategies, both of which will be valuable for careers in a world where topics include organization of information; evaluation and selection of databases; evaluation of information from web resources; types of online information resources (e.g., government documents, statistical sources; consumer, medical, and business information; online communities...); online periodical databases; use of search engines; copyright and fair use issues; and citing electronic sources. Students will develop lifelong learning skills for locating and evaluating information. Hands-on experience will be emphasized.

**MIT 322 Two-Dimensional Computer Animation Techniques**

(Prerequisites: CMPS 202 or CMPS 354 or permission of instructor) A course in the creation of computer animation, with emphasis on Web-based implementation. This course introduces techniques for computer animation such as key-framing, motion capture, layout, guides, tweening, The techniques will be implemented using the industry-standard software, Flash. The course also includes an overview of story-telling, storyboard, and scene composition. A major project will be required. (Also listed as ART 322.)

**Media and Information Technology Curriculum**

<table>
<thead>
<tr>
<th>Department and Number</th>
<th>Descriptive Title of Course</th>
<th>Fall Cr.</th>
<th>Spr. Cr.</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Year</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAJOR</td>
<td>CMPS 134-136¹</td>
<td>Computer Sci 1-Computer Prog II</td>
<td>3</td>
</tr>
<tr>
<td>MAJOR</td>
<td>PHYS 104²</td>
<td>Intro. to Consumer Technology</td>
<td>3</td>
</tr>
<tr>
<td>COGNATE</td>
<td>ELECT</td>
<td>Cognitive Elective</td>
<td>3</td>
</tr>
<tr>
<td>GE WRTG–SPCH</td>
<td>WRTG 107–COMM 100</td>
<td>Composition–Public Speaking</td>
<td>3</td>
</tr>
<tr>
<td>GE CIL 102</td>
<td></td>
<td>Computer &amp; Info Literacy</td>
<td>3</td>
</tr>
<tr>
<td>GE PHIL–T/RS</td>
<td>PHIL 120–T/RS 121</td>
<td>Intro to Philosophy-Theology I</td>
<td>3</td>
</tr>
<tr>
<td>GE HUM</td>
<td>HUM ELECT</td>
<td>Humanities Elective</td>
<td>3</td>
</tr>
<tr>
<td>GE FSEM</td>
<td>INTD 100</td>
<td>Freshman Seminar</td>
<td>1</td>
</tr>
<tr>
<td>GE PHED</td>
<td>PHIL ELECT</td>
<td>Physical Education</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Second Year</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAJOR</td>
<td>COMM 329</td>
<td>Graphics</td>
<td>3</td>
</tr>
<tr>
<td>COGNATE</td>
<td>COGNATE ELECT</td>
<td>Cognitive Electives</td>
<td>3</td>
</tr>
<tr>
<td>GE QUAN</td>
<td>MATH 204³</td>
<td>Special Topics of Statistics</td>
<td>3</td>
</tr>
<tr>
<td>GE HUMN</td>
<td>HUM ELECT</td>
<td>Humanities Elective</td>
<td>3</td>
</tr>
<tr>
<td>GE PHIL–T/RS</td>
<td>PHIL 210–T/RS 122</td>
<td>Ethics–Theology II</td>
<td>3</td>
</tr>
<tr>
<td>GE SBH</td>
<td>SBH ELECT</td>
<td>Social/Behavioral Electives</td>
<td>3</td>
</tr>
<tr>
<td>GE PHED</td>
<td>PHIL ELECT</td>
<td>Physical Education</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Third Year</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAJOR</td>
<td>COMM 317</td>
<td>Digital AV</td>
<td>3</td>
</tr>
<tr>
<td>MAJOR</td>
<td>PHYS 204–CMPS 311</td>
<td>Information Tech–Networks</td>
<td>3</td>
</tr>
<tr>
<td>MAJOR</td>
<td>MIT ELECT</td>
<td>Media &amp; Info. Tech. Electives</td>
<td>6</td>
</tr>
<tr>
<td>COGNATE</td>
<td>COGNATE ELECT</td>
<td>Cognitive Electives</td>
<td>3</td>
</tr>
<tr>
<td>GE HUMN</td>
<td>HUM ELECT</td>
<td>Humanities Elective</td>
<td>3</td>
</tr>
<tr>
<td>GE NCSI</td>
<td>NCSI ELECT</td>
<td>Natural Science Elective</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fourth Year</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAJOR</td>
<td>MIT 490</td>
<td>Information Technology Project</td>
<td>3</td>
</tr>
<tr>
<td>MAJOR</td>
<td>PHIL–T/RS ¹</td>
<td>Computer &amp; Ethics or equivalent</td>
<td>3</td>
</tr>
<tr>
<td>MAJOR</td>
<td>MIT ELECT</td>
<td>Media &amp; Info. Tech. Elective</td>
<td>3</td>
</tr>
<tr>
<td>COGNATE</td>
<td>COGNATE ELECT</td>
<td>Cognitive Electives</td>
<td>3</td>
</tr>
<tr>
<td>GE ELECT</td>
<td>FREE ELECT</td>
<td>Free Electives</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL: 130 CREDITS</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*To most effectively use the skills developed in the Media and Information Technology major, a content area is needed. Therefore, each student will complete either: (a) another academic major; or (b) an academic minor (or concentration) and take a course in Statistics (Quantitative Reasoning Area).

¹ Or CMPS 144
² Also GE NSCI requirement
³ MATH 204 or any other statistics course that fits into GE QUAN. If the cognate is a second major in the sciences, any GE QUAN is acceptable.
⁴ PHIL 214 Computers and Ethics or equivalent course in Philosophy or Theology/Religious Studies area.

MIT 324 3 cr. 3D Computer-generated Animation/Content

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 model/texture development, animation, construction of 3D environments, rendering and advanced topics. (Also listed as ART 324.)
MILITARY SCIENCE/ARMY RESERVE OFFICER TRAINING CORPS (ROTC)

LTC Robert Haines, Program Director

Overview
The University of Scranton’s Military Science Department, also known as the Royal Warrior Battalion, was named the top officer-producing program in the Second Brigade and was documented in the top 15% of 272 programs in nation for 2005. It was also selected as “Best Unit” for 1999-2000 in the Eastern ROTC Region, and the department established itself in the top 10% of all 270 ROTC programs in 1998.

The Royal Warrior Battalion has a flexible ROTC program that can be tailored to most students’ needs, and classes are offered on campus. Two- and four-year programs are available, both of which can lead to a commission as an officer in the United States Army (after passing a medical examination). Most students take one course per semester of the basic course program (freshman and sophomore years), and one course per semester of the advanced courses (junior and senior years).

The Royal Warrior Battalion enjoys outstanding results in awarding scholarships. In 2006, 106 students were enrolled in the Royal Warrior Battalion, with 59 scholarship recipients.

Advanced ROTC Course
Juniors, seniors and graduate students qualify for entry into the Advanced ROTC course in three 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 without incurring any obligation.

2. Summer programs: Students may also qualify through a paid, four-week Leadership Training Course (LTC) summer training session held in Fort Knox, Kentucky, which provides military training equivalent to the instruction received by freshmen and sophomores in the basic course program.

3. Advanced Placement: Students with any prior military service, members of the United States Army Reserves or National Guard, or former Junior ROTC members may qualify for advanced placement into the Advanced ROTC program.

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 (2) or (3) above. Application for this program should be made prior to the end of the spring semester of the sophomore year for the students not previously enrolled in Military Science instruction. Also available for graduate students.

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 Military Science 202. Each contracted student is required to complete the Leadership Development Assessment Course (LDAC), a paid, five-week training course held during the summer months between a student’s junior and senior year at Fort Lewis, near Seattle, Washington. Transportation, food, lodging, and medical

and dental care are provided at no cost to the student.

Scholarships
There are significant scholarship opportunities for ROTC students. Army ROTC scholarships are full-tuition scholarships. Additionally, scholarships include $900 for books and a $3,000-$5,000 stipend. The monthly stipend amount, paid from August to May, is $300 for freshman and up to $500 for seniors. Freshmen and sophomores can apply for three- and two-year full scholarships in December. Historically, most University of Scranton students win scholarships by their junior year. Winners of full, high school level, ROTC scholarships are provided free room and board by The University of Scranton.

Transcript Credit
Up to 15 Military Science credits can be counted on the transcript. Additionally, Physical Fitness Training (PHED 138) can count for the 3 required Physical Education credits and nurses receive 3 credits toward senior-year clinicals for the Army Nurse Summer Training Program. Candidates for an Army commission through Military Science are required to regulate 10 compulsorily courses in the areas of communications skills, military history, foreign language and computer literacy. Generally, these requirements will be met by satisfying the University’s general-education requirements. Contact the Professor of Military Science for specific requirements.

Minor in Leadership
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 practice leadership skills in demanding but safe and controlled training activities. The minor is open to all University students in the advanced 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 301, MS 302, MS 401, and MS 402, plus courses from the list of approved electives. They must also complete a University internship approved by the instructor of record, the Professor of Military Science. The student may choose two electives from the following approved courses:

Course Descriptions
MS 101-102 2 cr.
Concepts of Leadership I-II
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 rappelling, orienteering, first aid, swimming and marksmanship.

MS 111-112 0 cr.
Leadership Applications Laboratory
Freshmen and sophomores are encouraged to participate in this elective. Hands-on instruction is designed to reinforce classroom training on leadership.

MS 131-132 0 cr.
Advanced Leadership Applications Laboratory
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 201-202 4 cr.
Dynamics of Leadership I-II
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 military weapons.

MS 301-302 3 cr.
Military Leadership I-II
(Prerequisite: MS 201-202 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 301 is 2 credits; MS 302 is 1 credit.)

MS 401-402 3 cr.
Advanced Military Leadership
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 401 is 2 credits; MS 402 is 1 credit.)

MS 480 2 cr.
Internship in Military Science: Leadership Development Assessment Course
(Prerequisites: MS 301, MS 302, contracted status as a cadet) This internship is a paid five-week experience of leadership training and evaluation conducted at Fort Lewis, Washington with ROTC cadets from across the country. It gives the student the opportunity to practice the leadership theory acquired in the classroom.

MS 481 1 cr.
Internship in Military Science: Cadet Troop Leading
(Prerequisites: MS 301, MS 302, contracted status as a cadet) This internship is a paid three-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.

PHED 138 1 cr.
Physical Fitness Training
Stretching, strengthening exercises, and an aerobic workout, supervised by Army ROTC faculty. This course counts toward the 3-credit PHED requirement during the junior and senior years. This course is open to all students.

NEUROSCIENCE

Faculty
Primary
J. Timothy Cannon, Ph.D., Program Director
George R. Gomez, Ph.D.
Gary G. Kwiecinski, Ph.D.
Robert E. Waldock, Ph.D.

Secondary
Paul F. Fahey, Ph.D.
Timothy Daniel Foley, Ph.D.
Christie K. Karpinski, Ph.D.
Jerry R. Muir Jr., 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. The program is administered by an interdisciplinary committee.

Major in Neuroscience
44 to 47 credits.
Majors must take two electives from both biology and psychology as well as 3 credits of NEUR 493. Psychology electives must be drawn from PSYC 220, 221, 222, 225, 230, 234, 235, or, with permission of the director, PSYC 284 or 384. Biology electives must be drawn from those intended for biology majors. With permission of the director, NEUR 384 may be used to fulfill one psychology or biology elective requirement.

Cognate in Neuroscience
Students have ample research opportunities in laboratories 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. The program is administered by an interdisciplinary committee.

NEUROSCIENCE CURRICULUM

Course Descriptions

NEUR 110 0.5 cr.
Neuroscience Lab Rotations

NEUR 111 1 cr.
Neuroscience Research Literature

NEUR 231 3-4.5 cr.
(E/W) Behavioral Neuroscience

TOTAL: 130-140 CREDITS

1 NEUR 330L fulfills one of the writing-intensive requirements of the general education program.
NEUR 330L 2 cr.
(W) Neuroscience Research Methods Lab
(Prerequisite: BIOL 348 or BIOL 358 or PSYC 231) This lab will expose students to an array of research technologies, strategies and data analysis techniques related to the field of neuroscience. Primary literature relevant to laboratory exercises will be read and incorporated into lab reports and proposals.

NEUR 339 3 cr.
Psychopharmacology
(Formerly PSYC 384) (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 neuroanatomy, 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. (Also listed as PSYC 339.)

NEUR 348 3 cr.
Functional Neuroanatomy
(Prerequisite: BIOL 245, or, 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. Three hours lecture. (Also listed as BIOL 348.)

NEUR 358 3 cr.
Cellular and Molecular Neurobiology
(Prerequisites: BIOL 141-142) 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 signalling, cell-to-cell communication, glial cell function, and neural growth and development. Three hours lecture. (Also listed as BIOL 358.)

NEUR 384 3-6 cr.
Special Topics in Neuroscience
(Formerly NEUR 170; prerequisites: BIOL 141-142, 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 3 cr.
Sensory Biology
(Prerequisite: BIOL 245 and completion of or concurrent enrollment in PHYS 121/141) 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. (Also listed as BIOL 444.)

NEUR 493-494 3-6 cr.
Undergraduate Research in Neuroscience
(Formerly NEUR 160-161; prerequisites: BIOL 141-142, PSYC 231, PSYC 330, 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.

†PHILOSOPHY

Faculty
Kevin M. Nordberg, Ph.D., Chair
David W. Black, Ph.D.
Timothy K. Casey, Ph.D.
Christina Gschwandtner, Ph.D.
Daniel Haggerty, Ph.D.
Richard J. Klonoski, Ph.D.
Ronald McKinney, S.J., Ph.D.
Sharon M. Meagher, Ph.D.
J. Patrick Mohr, S.J., Ph.D.
Ann A. Pang-White, Ph.D.
Patrick Tully, 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 described elsewhere in this catalog.

Minor in Philosophy
A minor in Philosophy consists of 18 credits—the 6 credits required of all students and 12 additional credits. Seven distinct philosophy minors are available: the traditional open minor, Ethical Issues of Professional Life, Philosophy and Commercial Life, Pre-Law, History of Philosophy, Philosophy and Religious Life, and Philosophy and Science. Course listings for specific minors are available on the Philosophy Department Web page or in the Philosophy Department office.

Course Descriptions
PHIL 120: Introduction to Philosophy is a prerequisite for PHIL 210. Ethics. PHIL 210 is a prerequisite for all other philosophy courses.

PHIL 120 3 cr.
Introduction to Philosophy
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 3 cr.
Ethics
(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, and God and morality.

PHIL 211 3 cr.
(P) Business Ethics
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 3 cr.
(P) Medical Ethics
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 3 cr.
(P) Environmental Ethics
An introduction to environmental philosophy and the various ethical responses to the ecological crisis of the late 20th century. Examines such issues as biocentrism vs. anthropocentrism, the relation between culture and nature, the environmental ethical debate.

PHIL 214 3 cr.
(P) Computers and Ethics
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 3 cr.
(P) Logic
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 218 3 cr.
(PD) Feminism: Theory and Practice
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.
### Philosophy Curriculum

<table>
<thead>
<tr>
<th>Department and Number</th>
<th>Descriptive Title of Course</th>
<th>Fall Cr.</th>
<th>Spr. Cr.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>First Year</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAJOR (GE PHIL)</td>
<td>PHIL 120-210</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE WRTG 107-110</td>
<td>Composition--Public Speaking</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE C/JIL</td>
<td>C/JIL 102</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE HUMN</td>
<td>HUMN ELECT</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE QUAN</td>
<td>QUAN ELECT</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE NSCL/SBH</td>
<td>NSCI ELECT/SBH ELECT</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>FSEM-PHED</td>
<td>INTD 100-PHED ELECT</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

#### Second Year

| MAJOR (GE PHIL)       | PHIL 200 or 300 level                    | 3        | 3        |
| GE PHIL-T/RSS         | T/RSS 121-122                            | 3        | 3        |
| GE HUMN               | LANG ELECT                               | 3        | 3        |
| GE S/BH-NSCI          | S/BH ELECT-NSCI ELECT                    | 3        | 3        |
| GE ELECT              | NSCI ELECT                               | 3        | 3        |
| PHED                  | PHED ELECT                               | 3        | 3        |

| MAJOR                  | PHIL 200 or 300 level                    | 3        | 3        |
| OCNgate               | OCNgate ELECT                            | 9        | 9        |
| GE ELECT              | FREE ELECT                              | 3        | 3        |

| MAJOR                  | PHIL 300 or 400 level                    | 3        | 3        |
| OCNgate               | OCNgate ELECT                            | 9        | 9        |
| GE ELECT              | FREE ELECT                              | 3        | 3        |

| TOTAL: 130 CREDITS    |                                         |          |          |

1 Foreign language is recommended by department.
2 In the Cognate area of 24 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.

#### PHIL 220 (P) Ancient Philosophy
The Pre-Socratics, Plato, Aristotle and their immediate successors. Special emphasis on the theory of knowledge, the metaphysics and philosophic anthropology of Plato and Aristotle.

#### PHIL 221 (P) Medieval Philosophy
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/fait, theology/philosophy, and the nature and ethos of scholasticism.

#### PHIL 222 (P) Modern Philosophy I

#### PHIL 223 (P) Modern Philosophy II
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
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) Asian Philosophy
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) Chinese Philosophy
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
Philosophical and ethical analysis of the social nature of man with emphasis on modern social questions. Ethics of the family, of nation and of communities. International ethics.

#### PHIL 229 (P) Philosophy of Religion
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 231 (P) Philosophy of Women
This course reviews the philosophies of women 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) Idea of a University

#### PHIL 233 (P) Existentialism
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 234 (P) Freud and Philosophy
Examination of overt and covert philosophical implications of Freud's system of psychoanalysis. Emphasis on actual writings of Freud, particularly after 1920.

#### PHIL 240 (P) Wealth and the Human Good
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 242 (P) Latin American Thought
(PD) 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 306 (P) Philosophy of Education
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, and man and society.

#### PHIL 310 (P) Epistemology
An introduction to the theory of knowledge ranging from ancient to contemporary philosophy. Topics include sensation, perception, memory, recollection, reason, truth, science, technology, language, and the body. The unifying theme of the course is the historical importance of imagination and the central role it plays in knowing.
PHIL 311 3 cr.
(P) Metaphysics
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 312 3 cr.
(P) Modern Philosophy III
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 3 cr.
(P) Philosophy and Friendship
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 3 cr.
(P,D,W) Philosophy and the City
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 3 cr.
(P) Twentieth-Century Political Philosophy
This course is a survey of modern social contract theory and its relation to capitalism, and of modern Marxism. Issues raised will include obligation and consent, equality, freedom and self-determination, the role of markets, and the role of the state.

PHIL 316 3 cr.
(P’W) American Perspectives on Health Care Ethics
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 319 3 cr.
(P) Philosophy of Law
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 3 cr.
(P) Aesthetics
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 3 cr.
Great Books
Major thinkers in the Western philosophical, religious, political and literary traditions. This course emphasizes philosophical themes in literature.

PHIL 325 3 cr.
(P) Literature and Ethics
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 3 cr.
(PD) Advanced Topics in Feminist Philosophy
(P) Pre-requisite: 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 3 cr.
Readings in the Later Plato
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 3 cr.
(P) Philosophy of Literature
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 331 3 cr.
(P) Feminist Philosophy of Science
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 3 cr.
The Seven Deadly Sins
(P) 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, Spinoza will be considered as well as contemporary thinkers in philosophy, theology, psychology, and sociology.

PHIL 335 3 cr.
(W) Philosophy of Interpretation
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 3 cr.
(P) Religion After God
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 “denise of metaphysics.” It studies the thought of such thinkers as Ricoeur, Heidegger, Levinas, Marion, Chretien, and Henry.

PHIL 340 3 cr.
(PD) Philosophy and Judaism
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 341 3 cr.
(P) Philosophy of Culture
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 342 3 cr.
(P) Thomas Aquinas: Philosophy and Controversy
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 1325 will also be discussed.

PHIL 412 3 cr.
(P) Art and Metaphysics
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 418 3 cr.
(P) Phenomenology
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 420 3 cr.
(P) Philosophy of Rhetoric
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 3 cr.
Postmodern Philosophy
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 3 cr. (P) Philosophy of the Social and Behavioral Sciences
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 3 cr. (P) Philosophy of Science
An introduction to the history and philosophy of science. Selections from Darwin’s *The Origin of Species* (1859) and *The Descent of Man* (1871) and Popper, Feyerabend, Hanson, Stace, Quine, Frank, Rescher, Hempel, and Baier.

PHIL 434 3 cr. (P) Issues in Philosophy and Theology
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.

**PHYSICS**

Faculty
Paul F. Fahey, Ph.D., Chair
W. Andrew Berger, Ph.D.
Joseph W. Connolly, Ph.D.
John R. Kalafut, M.S.
Declan Mulhall, Ph.D.
Robert A. Spalletta, Ph.D.
Argyrios C. Varonides, Ph.D.
Christine A. Zakzewski, Ph.D.

Overview
The Department of Physics and Electrical Engineering offers majors in Physics and Biophysics, as well as the Electrical Engineering, Computer Engineering and Electronics-Business majors described earlier. The objectives of the department are to provide skills, understanding, and the methodology required to initiate active participation in the development of new knowledge about the material universe. The approach of the physicist, based as it is on the analysis of mathematical models dealing with matter and energy and their interactions, supplies a unique and important insight to the solution of problems in many disciplines.

A 1988 study by the Office of Institutional Research at Franklin and Marshall College shows that over 66 years, The University of Scranton ranked 33rd out of 977 four-year, private, primarily undergraduate institutions as the baccalaureate origin of physics doctorates. In addition, the Biophysics concentration in recent years has regularly produced students admitted to medical school.

**Minor in Physics**
21 credits, including PHYS 140, 141, 270 (all with labs), 352, ENGR 252, and at least one of PHYS 473, 372 and/or 371.

**Major in Biophysics**
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, biology, biochemistry, medicine or dentistry.

**Course Descriptions**

**PHYS 100 3 cr.** (E) History of Science and Technology
The evolution of scientific inquiry 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 3 cr.** (E) The Solar System
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 3 cr.** (E) Earth Science
Selected topics from geology and meteorology, weather forecasting, ground and surface water, mountain building, volcanoes, earthquakes, plate tectonics, and oceanography.

**PHYS 103 3 cr.** (E) Seeing the Light
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 3 cr.** (E) Introduction to Consumer Technology
Every day we listen to the radio or compact-disc recordings, watch TV, use photocopiers and fax machines without really knowing how they work.

**PHYS 105 3 cr.** (E) Man and the Evolutionary Universe
The study of the universe from the ancient times to the present. The ideas and approaches of various peoples are to 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 3 cr.** (E) Energy and the Environment
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 3 cr.** (E) “Hands-On” Physics
An introduction to the scientific method with an emphasis on physical reality. A series of experiments and discussions illustrate various physical phenomena allowing the participation in the assessment of important social, political, and scientific issues.

**PHYS 108 3 cr.** (W/E) New York Times Physics
Every day we are bombarded with information regarding the impact of technology on our lives. Using *The New York Times*, students will explore the scientific and technological concepts of our modern world. Topics will vary weekly.

**PHYS 109 3 cr.** (E) The Conscious Universe
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 3 cr.** Meteorology
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 phase-free, abundant cloud formation, pressure and wind, cyclones, circulation of atmosphere, air masses and fronts, and forecasting.

**PHYS 112 3 cr.** Natural and Manmade Disasters
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 civilization’s role in them are examined. (Not for major elective credit in Physics, Biophysics or EE).

**PHYS 113 3 cr.** (E) The Science of Light and Photography
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 and waves, 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. (Not for major elective credit in Physics, Biophysics or EE).

**PHYS 114 3 cr.** Solar Electricity
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 abundant and inexhaustible fuel source. Not for major elective credit in Physics, Biophysics or Electrical Engineering.
### Physics Curriculum

<table>
<thead>
<tr>
<th>Department and Number</th>
<th>Descriptive Title of Course</th>
<th>Fall Cr.</th>
<th>Spr. Cr.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>First Year</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAJOR</td>
<td>PHYS 140–141</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>COGNATE/MAJOR</td>
<td>MATH 103–114 or 114–221</td>
<td></td>
<td></td>
</tr>
<tr>
<td>COGNATE/MAJOR</td>
<td>MATH 114–221</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>COGNATE/MAJOR</td>
<td>MATH 105–114 or 114–221</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>GE WRTG–SPCH</td>
<td>WRTG 107–COMM 100</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE CHEM</td>
<td>CHEM 102</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE PHYS/PHIL</td>
<td>PHIL 120</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE PHYS/PHIL</td>
<td>INTD 100–PHIL ELECT</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Second Year</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAJOR</td>
<td>PHYS 270–352</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>COGNATE/MAJOR</td>
<td>ENGR 253–254</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>COGNATE/MAJOR</td>
<td>MATH 221–222 or 222–341</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>GE S/BH</td>
<td>S/BH ELECT</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE PHYS/PHIL</td>
<td>HUMN ELECT</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE PHYS/PHIL</td>
<td>T/RS 121–PHIL 210</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td><strong>Third Year</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAJOR</td>
<td>PHYS 447–448</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>MAJOR</td>
<td>PHYS 371–372</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>MAJOR</td>
<td>PHYS 350</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>COGNATE/MAJOR</td>
<td>MATH 541 or ELECT</td>
<td>3–4</td>
<td></td>
</tr>
<tr>
<td>GE PHYS/PHIL</td>
<td>T/RS 122</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE PHYS/PHIL</td>
<td>PHIL–PHIL ELECT</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE PHYS/PHIL</td>
<td>HUMN ELECT</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE PHYS/PHIL</td>
<td>PHED ELECT</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td><strong>Fourth Year</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAJOR</td>
<td>PHYS 493</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>MAJOR</td>
<td>PHYS/ECE</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>MAJOR</td>
<td>PHYS ELECT</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>COGNATE/MAJOR</td>
<td>COGNATE ELECT</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE ELECT</td>
<td>FREE ELECT</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td>104–117</td>
<td></td>
</tr>
</tbody>
</table>

1. Course materials are designed to be suitable for students entering with MATH 103 due to placement test results. They are not recommended for students majoring in physics.

### Biophysics Curriculum

<table>
<thead>
<tr>
<th>Department and Number</th>
<th>Descriptive Title of Course</th>
<th>Fall Cr.</th>
<th>Spr. Cr.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>First Year</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAJOR (GE NSCI)</td>
<td>PHYS 140–141</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>MAJOR (GE NSCI)</td>
<td>BIOL 141–142</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>COGNATE (GE QUAN)</td>
<td>MATH 103–114 or 114–221</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>GE WRTG–SPCH</td>
<td>WRTG 107–COMM 100</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE CHEM</td>
<td>CHEM 102</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE FSEM</td>
<td>INTD 100</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td><strong>Second Year</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAJOR</td>
<td>PHYS 278–352</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>MAJOR</td>
<td>CHEM 112–113</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>COGNATE/MAJOR</td>
<td>ENGR 242</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>COGNATE/MAJOR</td>
<td>MATH 221–222 or 222–341</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE PHYS/PHIL</td>
<td>PHYS 120–T/R 121</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td><strong>Third Year</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAJOR</td>
<td>PHYS/BIOL/CHEM ELECT</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>MAJOR</td>
<td>CHEM 232–233</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>GE PHYS/PHIL</td>
<td>T/R 122</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE PHYS/PHIL</td>
<td>PHIL 210</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE CHEM</td>
<td>S/BH ELECT</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE HUMN</td>
<td>HUMN ELECT</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE PHED</td>
<td>PHED ELECT</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td><strong>Fourth Year</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAJOR</td>
<td>PHYS/BIOL/CHEM ELECT</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>MAJOR</td>
<td>HUMN ELECT</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>MAJOR</td>
<td>FREE ELECT</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td></td>
<td>134</td>
<td></td>
</tr>
</tbody>
</table>

### Notes
- PHYS 120-121 8 cr.
- (E) General Physics
  - Prerequisites: MATH 103-114
  - General college course for pre-medical, pre-dental, biology, biochemistry and physical therapy majors.
- PHYS 140-141 8 cr.
- (E) Elements of Physics
  - Co-requisite: MATH 114-221
- PHYS 201 3 cr.
- (E) Stellar Evolution
  - An introduction to astrophysics for non-science students.
- PHYS 204 3 cr.
- Information Technology
  - Lectures and demonstrations are designed to explain the basics of information technology and engineering for students outside the technical disciplines.
- PHYS 270 4 cr.
- Elements of Modern Physics
  - Prerequisites: PHYS 141, MATH 114
- PHYS 351 3 cr.
- Mathematical Physics II
  - An advanced course that includes the following mathematical approaches and applications: functions of complex variables, infinite series in the complex plane, theory of residues, conformal mapping, Fourier and Laplace transforms, advanced partial differential equations, boundary value problems, and Green's functions.
- PHYS 352 3 cr.
- Statistical and Engineering Thermodynamics
  - Prerequisite: PHYS 270

TOTAL: 134 CREDITS
upon interests of majors represented. Three hours lecture. (Also listed as ENGR 352.)

**PHYS 371**
3 cr.
Advanced Mechanics
(Prerequisite: MATH 341) Comprehensive course in Newtonian dynamics, variational principles, Lagrange's and Hamilton's equations; theory of small oscillations and specialized non-linear differential equations in mechanical systems.

**PHYS 372**
3 cr.
Atomic and LASER Physics
(Prerequisite: PHYS 270, MATH 222) Intensive and quantitative treatment of modern atomic physics using the principles and techniques of quantum mechanics. The study of energy levels, pumping, feedback and transition rates in lasers. Required of Physics majors and highly recommended elective for electrical engineers. Three hours lecture with optional laboratory.

**PHYS 447**
3 cr.
Electromagnetics I
(Prerequisites: PHYS 270, PHYS 350) Analytic treatment of electrical and magnetic theory; vector calculus of electrostatic fields; dielectric materials; vector calculus of magnetic fields. Three hours lecture. (Also listed as EE 447.)

**PHYS 448**
3 cr.
Electromagnetics II
(Pre-requisite: PHYS 447) Magnetic materials, electromagnetic induction, displacement currents, Maxwell's equations; radiation and waves; applications include transmission lines, wave guides and antennas. Three hours lecture. (Also listed as EE 448.)

**PHYS 448L**
1 cr.
Electromagnetics Design Laboratory
(Pre-requisite: PHYS 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. (Also listed as EE 448L.)

**PHYS 460**
3 cr.
Non-linear Systems and Chaos
Non-linear systems in mechanics and electronics are studied. Limit cycles, chaotic attractors, hysteresis, stability and phase space are defined and applied to complex systems. Classical oscillators, e.g., Duffing oscillator, the van der Pol oscillator and the Lorenz equations, will be solved through various approximation methods. Chaos, bifurcations, routes to chaos, chaotic maps, correspondence between maps and Poincare sections of physical systems will be studied.

**PHYS 473**
3 cr.
Optics
(Prerequisites: PHYS 270, 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 photodetectors and light sources will also be discussed. Three hours lecture.

**PHYS 474**
3 cr.
Acoustics
(Prerequisite: PHYS 350) This course covers the fundamentals of vibration as applied to one-, two- and three-dimensional systems with varied boundary conditions. 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 493-494**
6 cr.
Undergraduate Physics Research I-II
(Prerequisite: Permission of the instructor) Students choose a research project sponsored by a member of the department and approved by the instructor and chairperson. Students gain experience with research literature, techniques and equipment. Weekly seminars are given on quantum mechanics, mathematics tools, and topics related to ongoing research projects. A written report is required.

**POLITICAL SCIENCE**

**Faculty**
Jean Wahl Harris, Ph.D., Chair
Michael E. Allison, Ph.D.
Leonard W. Champney, Ph.D.
Robert A. Kocis, Ph.D.
William J. Parente, Ph.D.
Gretchen 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 quantitative 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 130, 212, 217, 240, and either 313 or 314. The remaining 21 Political Science credits required for the major are selected by the student.

**Public Administration and Public Affairs Track**
Political Science majors may concentrate in Public Administration and Public Affairs. 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 as well as PS 135: State and Local Government, PS 232: Public Administration, and PS 480: Political Science Internship. For their remaining Political Science electives, students choose four courses from the following: PS 216, 227, 230, 231, 319, 322, 325, 327, 329.

Students in this track would complete their cognate in one of two ways. For option one students complete HIS 110-111, HIST 120-121, ECO 153, ECO 154, ACC 253, ACC 254. Option two entails completing a minor, concentration, or another special program in consultation with Dr. Champney or Dr. Harris, the track advisors.

**Minor in Political Science**
To minor in Political Science, a student must take a minimum of 18 credits in Political Science, including PS 130-131: American National Government I-II.

**Course Descriptions**

**IS 390**
3 cr.
(W) Seminar in International Studies
Required for International Studies majors. Other advanced undergraduates may take this course with permission of the professor. This course can count for either Political Science credit or History credit.

**PS 130**
3 cr.
(S) American National Government I
Addresses key principles of American government: democracy, federalism, separation of powers, and federalism. It covers political parties, voting, public opinion, interest groups and the media.
PS 131 3 cr.
(S) American National Government II
Addresses structure and functions of the branches of government: Congress, the presidency, bureaucracy, and the courts. It also covers civil rights and civil liberties.

PS 135 3 cr.
(S) State and Local Government
The structures, scope, processes, and politics of state and local governments are analyzed. Also considered: the constitutional position of state and local government; 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 212 3 cr.
International Relations
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 3 cr.
(D) Modern Africa
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 3 cr.
(D.S) Women's Rights and Status
Public policies (formal and informal) and their implementation determine the rights of citizens. 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 3 cr.
Comparative Government
Political institutions of Germany, France, Britain, and selected Third World nations are analyzed with focus on elections, parties, interest groups and foreign policies.

PS 218 3 cr.
East European Politics
This course examines the history and politics of East Europe from Poland to the Balkans and from Germany to the Ukraine during the 20th century. Special attention is given to ethnic politics before and after the communist period and the economics of the new privatization and its problems.

PS 219 3 cr.
(S,D) Survey of Latin American Politics
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 220 3 cr.
(S,D) Ideologies
A study of the three major political ideologies that shaped the 20th century (communism, fascism, and liberalism) and of those that may shape the twenty-first: feminism, racism, egalitarianism, environmentalism, libertarianism, and community relations.

PS 221 3 cr.
Politics of Southeast Asia
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 3 cr.
Politics in Russia
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 227 3 cr.
(D.S) Women, Authority and Power
In our representative democracy, women are a minority of elected and appointed government officials. 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 3 cr.
(S) Environmental Laws and Regulations
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. A brief introduction to international cooperation and conflict.

PS 232 3 cr.
Public Administration
A study of the structures, scope and processes of American public bureaucracies. The growth of the executive branches of government, the role of public bureaucracies in our democratic government, and the experiences of American public bureaucrats are analyzed.

PS 240 3 cr.
(Q,W) Research Methods in Political Science
Consideration of both qualitative and quantitative research methods in the study of Political Science. Topics include: primary source material, legal research, analysis of aggregate data, analysis of survey data and use of focus groups. Special consideration is given to survey research and public opinion polling. Course also introduces principles of univariate, bivariate and multivariate statistical techniques.
political thinking. A wide range of perspectives, from far left to far right, will be analyzed and critically examined. Minimally, the works of John Rawls, Robert Nozick, C.B. MacPherson, Isaiah Berlin, and Leo Strauss will be included.

**PS 317** Jurisprudence
An examination of the differences between "the law" and "the laws"; the nature of legal systems; the nature and grounds of political, moral and legal obligations, and the controversy between the traditions of Natural Law and Positive Law.

**PS 318** (W) U.S. Foreign Policy: Cold War and Aftermath
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** (W) U.S. Foreign Policy Process
Examines the actual formulation and implementation of American foreign policy within the decision-making process. Analyzes what the process is, who are 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
(Prerequisites: At least two of PS 130, 131, 135, 231, 232 or permission of instructor) An examination of public-personnel administration and management. Theories of organization, personnel choices, personnel management, civil-service history, and current issues in personnel administration and management are considered.

**PS 323** Central America
This course provides an overview of contemporary Central American politics. Special attention is given to the revolutionary upheavals in Nicaragua, El Salvador and Guatemala. The 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
(Prerequisites: At least two of PS 130, 131, 135, 231, 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 326** Theories of Political Economy
An examination of the works of the great thinkers in the tradition of the political economy, and an extensive study of the historical evolution of theories of value, the creation of value and the increase of productive abilities.

**PS 327** U.S. Congress
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

**PS 329** The American Presidency
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** Western Europe in World Affairs
This seminar provides an historical, political, and analytical foundation for understanding the profound political and economic changes facing Europe today. It involves studying the two world wars, the formation of Cold-War alliances and security systems, the European integration movement, the foreign policies of major European states, and organization of post–Cold War Europe.

**PS 331** (W) The European Union
(Enrollment only by permission from the professor.) 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
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
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 338** Politics of Islam
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 384** Special Topics in Political Science
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.
PSYCHOLOGY

Faculty

James P. Buchanan, Ph.D., Chair
Brad A. Alford, Ph.D.
Galen L. Baril, Ph.D.
J. Timothy Cannon, Ph.D.
Thomas P. Hogan, Ph.D.
Christie Pugh Karpiak, Ph.D.
John C. Norcross, Ph.D.
John J. O’Malley, Ph.D.
Carole S. Slotterback, 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 entry-level positions to graduate training in prestigious universities. According to a recent independent study, the number of the University’s graduates who have gone on to receive doctorates in psychology has placed us in the top 10% of comparable institutions nationally.

Psychology majors are required to take PSYC 110, 210, 330 with lab, 390 (fall, junior year), and 490-491 (senior year). Students also take a minimum of five courses from the following list with at least one course in each group: Physiological Processes (230, 231), Learning Processes (234, 235), Social-Development Processes (220, 221), and Individual Processes (224, 225). An equivalent statistics course and/or an equivalent methods course may be substituted for PSYC 210: Statistics and/or PSYC 330: Research Methods. Contact the Department Chair for a list of these courses. Any substituted course must then be replaced with a 3-credit Psychology course.

Course Descriptions

PSYC 105

(E) Brain and Human Nature
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; not open to Psychology majors or minors.)

PSYC 106

(E) Drugs and Behavior
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 received for this course and PSYC 384; not open to Psychology majors or minors.)

PSYC 110

(S) Fundamentals of Psychology
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 110L

Demonstrations for Fundamentals of Psychology
This lab is offered only in the fall semester and is restricted to and required only for students who enter the University as freshmen Psychology majors and who are enrolled in the Psychology majors’ fall section of PSYC 110. It is team taught by the psychology faculty and will entail exercises, simulations and applications. Graded pass/fail.

PSYC 210

(Q) Statistics in the Behavioral Sciences
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. Introduction to the computationally statistical-analysis package SPSS-PC.

PSYC 220

(S) Social Psychology
(Prerequisite: PSYC 110) Social determinants of behavior from a psychological perspective. Topics include liking, love, conformity, persuasion, attitude change, and person perception.

PSYC 221

(S) Childhood and Adolescence
(Prerequisite: PSYC 110) Survey of psychological research dealing with the development and behavior of children. The physical, cognitive and social aspects of development, from infancy to adolescence, are considered.

PSYC 222

(S) Adolescence
(Formerly PSYC 284) (Prerequisite: PSYC 110) This course provides a survey of psychological research dealing with adolescence and considers the physical, cognitive, and social aspects of adolescence. Topics include adolescent egocentrism, importance of peers, family and school, as well as problem behaviors/emotional problems.

PSYC 223

(S) Personality
(Prerequisite: PSYC 110) A survey and critical evaluation of personality and its implications for assessment, psychotherapy, and research.

PSYC 225

(S) Abnormal Psychology
(Prerequisite: PSYC 110) 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 230

Sensation and Perception
(Prerequisite: PSYC 110) 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 only in spring.

PSYC 231

(E) Behavioral Neuroscience
(Prerequisite: PSYC 110 or BIOL 141-142) 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. (Also listed as NEUR 231.)
PSYC 234 3-4 cr.
(S) Cognitive Psychology
(Prerequisite: PSYC 110) 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 fall only.

PSYC 235 3-4.5 cr.
Conditioning and Learning
(Prerequisite: PSYC 110) 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; spring only.

PSYC 236 3 cr.
Industrial/Organizational Psychology
(Prerequisite: PSYC 110) The psychological study of people at work. Topics include personnel selection and training, motivation, leadership, the physical work environment, and computer applications. Fall only.

PSYC 237 3 cr.
(D,S) Psychology of Women
(Prerequisite: PSYC 110) 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. Fall, every other year.

PSYC 238 3 cr.
Exercise and Sport Psychology
(Formerly PSYC 284) (Prerequisite: PSYC 110) The course covers cognitive-behavioral 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 3 cr.
Academic & Career Dev. in Psychology
1

PSYC 240 3 cr.
Psychological Statistics
1

PSYC 241 3 cr.
Research Methods in Psychology
1

PSYC 242 3 cr.
Research Methods in the Behavioral Sciences
(Formerly PSYC 384) (Prerequisites: PSYC 110; a grade of C or higher in PSYC 210) Provides a thorough grounding in principles of testing and review of the major types of assessment, including intellectual, personality and interest. Lecture, 3 credits; optional 1-credit laboratory, PSYC 335L. Lab fee; lab offered fall only.

PSYC 335 3 cr.
(W) Psychological Testing
(Prerequisites: PSYC 110; a grade of C or higher in PSYC 210) Provides a thorough grounding in principles of testing and review of the major types of assessment, including intellectual, personality and interest. Lecture, 3 credits; optional 1-credit laboratory, PSYC 335L. Lab fee; lab offered fall only.

PSYC 336 3 cr.
Psychopharmacology
(Formerly PSYC 384) (Prerequisites: PSYC 110; a 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 behavior. Numerous research strategies are examined, including dose response functions, therapeutic indices, routes of administration, and pharmacological/building models of clinical conditions. (Also listed as NEUR 339.)

PSYC 360 3 cr.
(W) Clinical Psychology
(Prerequisites: PSYC 110; a 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 3 cr.
Cognitive Behavior Therapy
(Formerly PSYC 384) (Prerequisites: PSYC 110; a grade of C or higher in PSYC 225) Reviews and examines treatments derived from the theories of Albert Ellis and psychiatrist Aaron T. 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.

PSYC 362 3 cr.
Child Clinical Psychology
(Prerequisites: PSYC 110, PSYC 221, PSYC 225) This course is a survey of approaches to psychotherapy with preschool through early ado-
PSYC 363  3 cr.  
Behavior Modification  
(Formerly PSYC 284) (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.

PSYC 390  1 cr.  
Academic and Career Development in Psychology  
(Prerequisites: junior standing; Psychology major) This seminar, designed for Psychology majors in their junior year, will entail studying, discussing, and applying information on academic planning, career development, and graduate school. Course requirements include attendance at several academically-related department events or psychologically related university presentations. Graded Satisfactory/Unsatisfactory. Fall only.

PSYC 480  3 cr.  
Field Experience in Clinical Settings  
(Prerequisites: Psychology major; junior or senior standing with priority given to seniors; a grade of C or higher in PSYC 225 and PSYC 360; permission of instructor. Prerequisite or co-requisite: PSYC 335) 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  3 cr.  
Field Experience in Personnel Psychology  
(Prerequisites: junior or senior standing; a grade of B or higher in PSYC 236 and 335; MGT 361; permission of instructor) This course entails supervised field experience in a personnel office. Students are required to spend 10 hours a week at their placement and one hour periodically throughout the semester in a seminar. Graded Satisfactory/Unsatisfactory. Offered as a reader.

PSYC 490  1.5 cr.  
History and Literature of Psychology I  
(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 various schools of thought that have shaped the emergence of psychology. Fall only.

PSYC 491  1.5 cr.  
(W) History and Literature of Psychology II  
(Prerequisite: senior standing; a 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  1-2 cr.  
Advanced Topics Seminar  
Seminars featuring selected advanced topics in psychology. Restricted to junior and senior majors by permission of the instructor. The specific topic, scheduling format and course prerequisites will vary by instructor. The topics, with specific prerequisites, will be listed each semester and can be obtained for the academic year from the department chairperson.

PSYC 493-494  3-6 cr.  
Undergraduate Research  
(Prerequisites: junior or senior standing; PSYC 330; 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. Students are expected to spend a minimum of 10 hours a week on research activities throughout the semester.

SOCIETY  
Faculty  
Harry R. Dammer, Ph.D., Chair  
Thomas E. Baker, M.S.  
Joseph E. Crimi, J.D.  
David O. Friedrichs, M.A.  
James C. Roberts, Ph.D.  
Loreen Wolfer, Ph.D.

Overview  
Courses in Sociology are designed to meet the intellectual and career interests of students who are concerned about what is happening in their society and in their daily personal interaction with other people. The courses are 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 Urban Planning are advised to include SOC 116, 224, 231 and 232 in their electives; for Social Work, SOC 234, 115, 116, 118 and 224; for Medical Services/Administration, SOC 216, GERO 212, 216, 218 and 230; for Human Resources/Administration, SOC 226, 227 and 228. The Department of Sociology/Criminal Justice also administers the Criminal Justice major and the Gerontology major.

Minor in Gerontology  
18 credits, including SOC 110, GERO 110, and GERO 230. The following electives are strongly recommended by the department in the Gerontology sequence: GERO 218, GERO 216, GERO 212, GERO 232.

Course Descriptions  
Sociology  
SOC 110  3 cr.  
(S) Introduction to Sociology  
Fundamental principles in the field of sociology. Stratification, ethnicity, deviance; basic institutions of society; social change and demographic trends.

SOC 112  3 cr.  
(S) Social Problems  
Application of sociological principles to major issues in contemporary society.

SOC 115  3 cr.  
Introduction to Social Work  
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 132  3 cr.  
Introduction to Archaeology  
An introduction to the study of archaeology from anthropological and historical perspectives. Areas to be explored include survey and site recognition, excavation planning, record keeping, treatment of artifacts, and above-ground archaeology.
SOC 210 3 cr.
(D.W) Marriage and the Family

An historical, comparative, and analytical study of marriage and family institutions. Problems of courtship, mate selection and marriage adjustment in modern society.

SOC 211 3 cr.
Methods of Social Research

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 3 cr.
Religion and Society

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.
movements and how feminist ideologies, strategies, and individuals influence 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.

SOC 317 3 cr. (D,W) Family Issues and and Social Policy
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 328 3 cr. Child Welfare

SOC 330 3 cr. Social Policy and Aging
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 3 cr. Urban Sociology
Urban ecology and culture as the dominant form of community life in contemporary society; their characteristics, peculiarities, and problems.

SOC 332 3 cr. (D) Great American Cities
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 382-383 3 cr. Independent Study in Sociology
(Prequisite: 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 3 cr. Internship in Social Work
(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.

Approved courses from other curricula:
Sociology majors may be advised to choose several courses taught in the Criminal Justice sequence; courses in approved include:

S/CJ 210 Law and Society
S/CJ 213 Criminology
S/CJ 214 Juvenile Delinquency
S/CJ 218 The American Court System
S/CJ 220 Penology: Corrections
S/CJ 221 Community-based Corrections
S/CJ 224 Sociology of Deviance
S/CJ 225 White Collar Crime
S/CJ 226 Comparative Justice Systems
S/CJ 227 Organized Crime Patterns
S/CJ 232 Public Safety Administration
S/CJ 234 Criminal-Justice Management
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

Gerontology

GERO 110 3 cr.
(S) Introduction to Gerontology
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.

GERO 112 3 cr.
Social Problems of Aging
This course studies specific problems of the aged in America, with attention to issues of inequality in opportunities and rewards; of mental health, housing, minorities, and institutions; of crime and victimization; of economic status, work, leisure, and retirement; of attractiveness, aging and sexuality; of drugs, doctors, nursing homes and hospitals.

GERO 210 3 cr.
Aging Around the World
A cross-cultural approach looking at the ways in which a variety of societies deal with aging and the aged. The issues of work, economics, other types of expertise and different definitions of the aged are analyzed.

GERO 212 3 cr.
Aging and the Life Cycle
Rites of passage, age norms, and role rehearsals for life transitions; the life cycle in comparative cultural, sociological dimensions of adulthood and aging concerning the work cycle, sport and leisure development, patterns of consumer behavior and life style, and the family cycle.
THEOLOGY/RELIGIOUS STUDIES

Faculty
Charles R. Pinches, Ph.D., Chair
Scott C. Bader-Saye, Ph.D.
James Brian Benestad, Ph.D.
Stephen J. Casey, M.A.
Mary Anne Foley, C.N.D., Ph.D.
Brigid C. Frein, Ph.D.
Maria Paggi Johnson, Ph.D.
Susan F. Mathews, Ph.D.
Cyrus Olsen, M.Phil.
Eric A. Plumer, Ph.D.
Thomas F. Sable, S.J., 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 our 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 credits for all students is fulfilled by T/RS 121-122, a two-semester introductory sequence. These courses must be completed before students take upper-division courses in Theology.

Major in Theology/Religious Studies
The Bachelor of Arts degree in Theology/Religious Studies requires 30 credits in the major (including the two introductory courses), allowing 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 at least one semester of 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 following categories:

Old Testament
T/RS 210Z, 310Z, 311Z, 312Z, 313Z, 440Z

New Testament

History

Doctrine
T/RS 220, 222, 328Z, 329Z, 330Z, 331Z

Moral Theology

Pastoral Studies Track
Completion of this track will be noted on the Theology major’s transcript. The student must minor in Counseling and Human Services, including in that minor CHS 111, 112, 241 and 341. Included among the courses for the major or minor must be T/RS 358Z or CHS 440Z with placement in a pastoral setting, and a Pastoral Studies capstone seminar.

Theology/Religious Studies Minor
The minor in Theology/Religious Studies requires 18 credits: T/RS 121 and 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.

Course Descriptions

HEBR 101-102 6 cr.
(CF) Biblical Hebrew
(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.

T/RS 121 3 cr.
(P) Theology I: Introduction to the Bible
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 3 cr.
(P) Theology II: Introduction to Christian Theology
(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 210Z 3 cr.
(RD) Jews, Christians, and the Bible
(Formerly T/RS 207) 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 211 3 cr.
Perspectives on Western Culture
The religious, philosophical and political writings of major thinkers of the Western tradition. The first semester includes the study of the Bible, Aristotle’s Ethics, Plato’s Apology, Augustine’s City of God, and the thought of Aquinas. Emphasis is on the study of these works as they illuminate the current world.

T/RS 212 3 cr.
(P) Saints and Holiness
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 3 cr.
American Catholic Thought
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 214C 3 cr.
(P/W) Inside the Catholic Tradition
(Formerly T/RS 184C) This introduction to Catholic Tradition will study its scope, depth, and ongoing development, reception, and characteristics. Topics covered include Pard and Revelation, the intercommunication 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 215Z 3 cr.
(P) The History of Christian Theology
(Formerly T/RS 210) 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 216Z 3 cr.
(RD) Judaism in Modern Times
This course is a detailed study of the history of modern Judaism (1700 to present) in all of its...
**Theology/Religious Studies Curriculum**

<table>
<thead>
<tr>
<th>Department and Number</th>
<th>Descriptive Title of Course</th>
<th>Fall Cr.</th>
<th>Spr. Cr.</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Year</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAJOR (GE T/RS)</td>
<td>T/RS 121-122</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE WRTG-SPC1</td>
<td>WRTG 107-COMM 100</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE C/IL</td>
<td>C/IL 102</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE PHIL</td>
<td>PHIL 120</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE HUMN</td>
<td>HUMN ELECT</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE QUAN</td>
<td>MATH ELECT</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE S/BH</td>
<td>S/BH ELECT</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE FSEM</td>
<td>INTD 100</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>GE PHED</td>
<td>PHED ELECT</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>16</td>
<td>16</td>
</tr>
<tr>
<td>Second Year</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAJOR</td>
<td>T/RS ELECT</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>OGNATE</td>
<td>OGNATE ELECT</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE NSCI</td>
<td>NSCI ELECT</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE S/BH</td>
<td>S/BH ELECT</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE PHIL</td>
<td>PHIL 210-ELECT</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE HUMN</td>
<td>HUMN ELECT</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE PHED</td>
<td>PHED ELECT</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>16</td>
<td>16</td>
</tr>
<tr>
<td>Third Year</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAJOR</td>
<td>T/RS ELECT</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>OGNATE</td>
<td>OGNATE ELECT</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE ELECT</td>
<td>ELECTIVE</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>15</td>
<td>18</td>
</tr>
<tr>
<td>Fourth Year</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAJOR</td>
<td>T/RS 490</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>OGNATE</td>
<td>OGNATE ELECT</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE FREE</td>
<td>FREE ELECT</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>18</td>
<td>15</td>
</tr>
<tr>
<td><strong>TOTAL: 130 CREDITS</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

aspects, including Messianism, Hasidism, Jewish Emancipation, new Jewish religious movements, Zionism, Holocaust, and the rise of the State of Israel.

T/RS 217  
(PD) The Holocaust in Context: History and Theology  
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 218Z  
(PD) Women in Christianity  
(Formerly T/RS 315) 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 219Z  
(PD) The Religions of the World  
(Formerly T/RS 314) An exploration of belief in the traditions of the classical historical religions of the world through both systematic analysis and the reading of sacred texts.

T/RS 220  
(P) Spirituality: Liturgy and Sacraments  
A basic course in sacraments which explores the religious experience of the faith community and its expression in sacraments. Two features of the Rite of Christian Initiation of Adults, its process-orientation and the role of community, will serve as basis for the examination of new sacramental models. Specific attention will be given to the development of a sacramental spirituality.

T/RS 221  
(P) Prayer  
Introduction to the nature, purpose, and method of prayer in the Catholic Christian tradition.

T/RS 222  
(P) Introduction to Liturgical Theology  
This course will consider the relationship between liturgy and theology, as realities in the Christian life which form and inform one another. Fundamental documents of the Roman liturgy will be introduced, with an eye toward discerning insights into God, Christ, the Church, the sacraments and the human person which are embodied therein.

T/RS 223Z  
Introduction to the Theology of the Byzantine Churches  
(Formerly T/RS 225) The Byzantine theological tradition develops special emphases within the mainstream of the Christian tradition. This course introduces the student to the study of some of the specifically Byzantine contributions to the understanding of the Christian mystery, with particular emphasis on early developments.

T/RS 224Z  
(P) Introduction to Eastern Liturgies  

T/RS 225Z  
(P) A Theology of Marriage  
(Formerly T/RS 240) This course will introduce students to the theology of marriage. It will focus on the distinctiveness of Christian marriage, its sacramentality, 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 226Z  
(P) Faith and Healing: God and Contemporary Medicine  
(Formerly T/RS 313) 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 227Z  
(P) Biomedical Ethics  
(Formerly T/RS 330) This course will present theological reflections on the main ethical theories underlying 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 228Z  
(P) Parables in Pop Culture  
(Formerly T/RS 214) 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  
A study of the Christian moral tradition, its history and principles. Among areas to be treated are: the family, sexual activity and human rights.

T/RS 231  
(P) Social Ethics  
This course will prepare students to recognize ethical dimensions of political, economic and social issues through the study of the following: pertinent writings of Pope Paul VI and Pope John Paul II, a classic work of political theory, and several contemporary writings on such issues as morality, foreign policy and economic justice.

T/RS 232  
John Paul II and Catholic Social Thought  
This course will explore the dialogue between the Catholic Church and modern ideologies on social and political matters. Readings include pertinent documents of the Second Vatican Council and recent papal writings, especially those of Pope John Paul II.

T/RS 233  
(PW) Suffering  
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  
(PD) Twentieth-Century Peacemakers  
A study of some of the principles and methods of “waging peace” found in the lives and writings of Mohandas Gandhi, Dorothy Day, Thomas Merton and Martin Luther King.
T/RS 235  3 cr.
(P) The Theology of Birth and Death
This course will investigate the meaning and sign-
nificance of the birth and death of human beings
in the Christian tradition. Related topics will be:
suicide, euthanasia, capital punishment, contra-
ception and abortion.

T/RS 236  3 cr.
(P)W) Prophets and Profits: The Economy in
the Christian Life
An inquiry into the witness of the Church with
regard to questions of wealth, business, econom-
ics and formulation of public policy. Biblical
sources, Church tradition, and contemporary
narratives will be employed to assess the com-
mon good.

T/RS 237  3 cr.
Politics: A Christian Perspective
An inquiry into the role of the state, the Church
and the individual in political life. Special atten-
tion is given to the problem of violence; the
course is set in the unique American perspective
of Church-State relations.

T/RS 238  3 cr.
Nietzsche and Christianity
A focus on Nietzsche's relation to and critique of
Western thought in general and Christian
thought in particular. Nietzsche's deep influence
on contemporary theology and philosophy will be
shown through extended readings from his
collected works.

T/RS 239Z  3 cr.
(P) Money and Power in the Biblical Tradition
(Formerly T/RS 328) A study of the presenta-
tion of various social-justice issues in the Old
and New Testaments, including wealth and pov-
erty as signs of God's favor, obligations to care
for and protect the poor, and faith as involving
both rights and responsibilities.

T/RS 240Z  3 cr.
(P)W) Scrolls and Scriptures
What are the Dead Sea Scrolls? Do they predict
the future? Were they suppressed by the Vatican?
Do they reveal secret information about Jesus?
Conspiracy theories and tabloid headlines
abound, but what do the scrolls really tell us?
This course will look at the tabloids, the con-
spiracy theories and the scrolls themselves to
understand better Judaism and early Christianity.

T/RS 241Z  3 cr.
(P) Early Biblical Heroes and Villains
(Prerequisites: T/RS 121, T/RS 122) This course
will be a theological study of some of the histori-
cal 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 296  3 cr.
(RD) Life Along the Dead Sea
A three-component travel course: (1) Participa-
tion in one-week archaeological excavation at
Ein Gedi, Israel; (2) A one-week tour of impor-
tant biblical sites; and (3) A University of
Scranton–based series of lectures for background
and context.

T/RS 310Z  3 cr.
(P) The Heart of the Old Testament
(Formerly T/RS 309) 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 empha-
size the central theme of the Covenant.

T/RS 311Z  3 cr.
Job and the Psalm
(Formerly T/RS 306) 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 312Z  3 cr.
(P) The Great Prophets
(Formerly T/RS 308) An examination of the
four major prophets of the Old Testament: Isa-
iah, Jeremiah, Ezekiel and Daniel, with an
emphasis on the study of selected texts.

T/RS 313Z  3 cr.
(RW) Faith and Justice in the Prophetic
Tradition
(Formerly T/RS 208) 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 314Z  3 cr.
(P) The Four Gospels
(Formerly T/RS 206) A study of the four Gospels
from the perspectives of history, theology and
literature.

T/RS 315Z  3 cr.
(PW) John's Gospel and Letters
(Formerly T/RS 304) A close look at the Fourth
Gospel and the Epistles of John with an empha-
sis on their literary, historical, and theological
characteristics.

T/RS 316Z  3 cr.
(PW) Passion and Resurrection Narratives
(Formerly T/RS 307) A study of the theology of
each of the Gospels by an analysis of the key
narratives of the Passion and Resurrection in the
four Gospels.

T/RS 317Z  3 cr.
(P) Pauline Letters
(Formerly T/RS 204) 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 318Z  3 cr.
(P) The Apocalypse of St. John
(Formerly T/RS 305) This introduction to the
last book of the Bible will emphasize the literary
forms and thought patterns of apocalyptic litera-
ture as well as the historical and theological
character of the book itself, highlighting both
textual interpretation and contemporary relevance.

T/RS 319Z  3 cr.
(RD,W) Judaism in the Time of Jesus
(Formerly T/RS 355) 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 320Z  3 cr.
(P) Early Christian Writers
(Formerly T/RS 215) This course is designed to
provide an introduction to the main figures,
thetical 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 321Z  3 cr.
(P) Development of Christian Thought to
1100
(Formerly T/RS 218) A survey of the principal
theological, spiritual and institutional develop-
ments in the first millennium of the Church's life.

T/RS 322Z  3 cr.
(P) Development of Christian Thought
1100 to 1800
(Formerly T/RS 219) Survey of the principal
theological, spiritual, and institutional develop-
ments in the Church in the medieval, reforma-
tion, and early modern periods.

T/RS 323Z  3 cr.
(P) Protestant Traditions
(Formerly T/RS 228) This course will examine
both historical and contemporary representatives
of selected Protestant traditions, focusing on
their characteristic understandings of (1) scrip-
ture, tradition and knowledge of God; (2) grace,
faith and works; and (3) the Church and the
Christian life.

T/RS 324Z  3 cr.
Jesus Spirit
(Formerly T/RS 312) The Society of Jesus (Jesu-
ists): its spirituality, tradition and history from
their 16th-century origins in the Spiritual Exer-
cises of St. Ignatius of Loyola through the con-
temporary period, with special emphasis on
Jesus theological and cultural contributions to
the Church.

T/RS 325Z  3 cr.
(P) Heaven and Hell
(Formerly T/RS 223) Besides studying the ori-
gins 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 326Z  3 cr.
Belief and Unbelief
(Formerly T/RS 327) A multidisciplinary
inquiry into the nature of Faith in the Catholic
tradition with special attention to the challenges
of modernity.

T/RS 327Z  3 cr.
Spiritual Classics
(Formerly T/RS 324) A study of the autobiogra-
phies of St. Augustine and St. Teresa of Avila
(The Confessions and Life of Teresa of Jesus). As an
introduction to the study of the spiritual life,
John Paul II’s “Sign of Contradiction” is read.

T/RS 328Z  3 cr.
Models of the Church
(Formerly T/RS 318) A brief survey of various
expressions of the Church's nature and mission
throughout its history, from the New Testament
to Vatican II. Exploration of some contem-
porary approaches, including liberation and feminist theology, and such questions as: What and who is the "true Church"? Where is it located? What is the place of Mary in the life of the Church?

T/RS 329Z  3 cr.
(P) Signs and Symbols
(Formerly T/RS 323) A study of the nature and purpose of symbols in the Church. Students will draw from the insights of contemporary symbol theorists as they piece together their own definition of "symbol." This definition will then be used to gain a new perspective on the Church's doctrine and sacraments as fundamentally symbolic realities.

T/RS 330Z  3 cr.
(P) Christ in Tradition and Culture
(Formerly T/RS 227) 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 331Z  3 cr.
(RW) God and the Earth
(Formerly T/RS 316) 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 332Z  3 cr.
(P) Jesus and the Moral Life
(Formerly T/RS 338) A study of how the life of Jesus and the theological claims Christians make about his person relate to the moral life. Historical resources of the first century will be considered as well as contemporary writings in Christian ethics.

T/RS 333Z  3 cr.
(P) Friendship and the Christian Life
(Formerly T/RS 321) 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 334Z  3 cr.
(PD) The Church and Contemporary Social Issues
(Formerly T/RS 326) 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.

T/RS 335Z  3 cr.
(P) Christian Ethics
(Formerly T/RS 331) This course will discuss the practice of the Christian moral life in contemporary society. The Christian virtues will be distinguished and related to selected problems arising in our lives as private individuals, as members of families, as professionals, and as citizens. Other topics to be treated include: evil, sin, Christian liberty, Christian perfection, relativism and humanism.

T/RS 336Z  3 cr.
(PD) The Jewish Way of Life
(Formerly T/RS 333) 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  3 cr.
(PD,W) Jewish Approaches to Ethics
A survey of Jewish approaches to ethics and ethical problems with comparisons to other religious traditions and the writings of secular ethicists. Students who take T/RS 334Z may not take T/RS 337.

T/RS 338Z  3 cr.
(PD,W) Psychology and Spirituality
(Formerly T/RS 439; prerequisite: 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 339Z  3 cr.
Eastern Christian Spirituality
(Formerly T/RS 325) A study of the meaning of the spiritual life for Eastern Christian writers with a particular emphasis upon Sts. 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.
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 a desire for lifelong learning.
- Disseminating and creating knowledge.
- Facilitating student development of business skills and independent thinking.
- Fostering a comprehension of, and sensitivity to, international issues and social justice.
- Modeling personal integrity and ethical decision making.
- Providing and promoting opportunities for service to others.

Departmental Programs
Nine programs are available in the Kania School of Management: Accounting, Accounting Information Systems, Business Administration, Electronic Commerce, 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 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.

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 coursework.

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 (SOM only). It consists of 21 credits:

ECO 101 Current Economic Issues
ACC 253 Financial Accounting
ECO 351 Environment of International Business
FIN 351 Introduction to Finance
MGT 351 Principles of Management
MKT 351 Principles of 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, Accounting Information Systems, Economics, Electronic Commerce, Finance, Management of People and Teams, Management of Structures and Systems, and Operations Management are described under those respective programs.

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 (Quantitative Methods II)
- MATH 108 (Quantitative Methods III)

Option II* (8 credits)
- MATH 114 (Analysis I)
- MATH 221 (Analysis II)

Both options cover the topics of calculus. Option I takes an applied approach; Option II a theoretical approach.

Business Leadership Program
Robert L. McKeage, Ph.D., Director
See page 79.

ACCOUNTING

Faculty
Rohyn Lawrence, Ph.D., Chair
Brian W. Carpenter, Ph.D.
Ronald J. Grambo, Ph.D.
Roxanne T. Johnson, Ph.D.
Daniel P. Mahoney, Ph.D.
David F. Salerno, M.B.A.

Overview
In today's ever-expanding world of international commerce, it pays 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 a four-year accounting degree, a five-year combined Bachelor of Science/Master of Business Administration degree, a four-year accounting information systems degree and a minor in accounting. Within the four-year program, students may opt to complete either the General Accounting track or the Forensic Accounting track.

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.

Four-Year Accounting Degree
Within the four-year accounting program, students have the option of completing one of two tracks: General Accounting or Forensic Accounting.

The General Accounting track provides a solid foundation in business and accounting for students interested in accounting careers in private industry and nonprofit organizations. It prepares graduating students to pursue graduate studies (e.g., law) or to further their own businesses. The Forensic Accounting track is designed for students interested in professional certifications such as Certified Management Accountant and/or Certified Internal Auditor.

The Forensic Accounting track was developed in response to the demand for accounting professionals with specialized knowledge in the areas of fraud examination and litigation support. This track includes course work in fraud examination, criminology and financial statement analysis. This program is appropriate for students interested in becoming a Certified Fraud Examiner.

To receive a degree in accounting, the student must earn at least a “C” in each of the two accounting principles courses (ACC 251-252 or equivalent).

Combined Bachelor of Science/Master of Business Administration Degree 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-hour 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 B.S./M.B.A. degree program should apply to the College of Graduate and Continuing Education as prescribed by the College of Graduate and Continuing Education Catalog as early as December 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, letters of recommendation and statement of purpose. Students must adhere to requirements as listed in the College of Graduate and Continuing Education Catalog.

Minor in Accounting

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 251-252 or ACC 253-254, 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.

Course Descriptions

**ACC 251**

Financial Accounting I

(For accounting, AIS, EMT 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 252**

Financial Accounting II

(Continuation of ACC 251 for accounting, AIS, EMT 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 253**

Financial Accounting

(For non-accounting, non-AIS, non-EMT and non-finance majors) A survey of the accounting cycle, basic financial statements, theory and techniques of income, asset, and liability recognition.

**ACC 254**

Managerial Accounting

(Continuation of ACC 253 for non-accounting, non-AIS, non-EMT 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 361**

Intermediate Accounting I

(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

(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

(Prerequisites: ACC 252 or 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**

Auditing Theory

(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

(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

(Prerequisite: ACC 252, 254, or 210) 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.
Accounting – Forensic Accounting Track Curriculum

<table>
<thead>
<tr>
<th>Department and Number</th>
<th>Descriptive Title of Course</th>
<th>Fall Cr</th>
<th>Spr Cr</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Year</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GE S/BH</td>
<td>ECO 153–154</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE WRITG–SPCH</td>
<td>Composition–Public Speaking</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE PHIL-T/RS</td>
<td>PHIL 120–T/RS 121</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE C/IL</td>
<td>C/IL 104</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE QUAN</td>
<td>MATH ELECT</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE HUMN</td>
<td>HUMN ELECT</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE FSEM-PHED</td>
<td>INTD 100–PHED ELEC</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>16-17</td>
<td>16-17</td>
</tr>
<tr>
<td>Second Year</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BUS CORE</td>
<td>ACC 251–252</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>BUS CORE</td>
<td>STAT 251–252</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>BUS CORE</td>
<td>MGT 251</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE PHIL-T/RS</td>
<td>PHIL 210–T/RS 122</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE NSCI</td>
<td>NSCI ELECT</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE HUMN</td>
<td>HUMN ELECT</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE ELECT</td>
<td>S/CJ 213</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>18</td>
<td>18</td>
</tr>
<tr>
<td>Third Year</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAJOR</td>
<td>ACC 361–362</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>MAJOR</td>
<td>ACC 363–461</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>BUS CORE</td>
<td>MGT 351–352</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>BUS CORE</td>
<td>FIN 351–MKT 351</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>BUS CORE</td>
<td>OIM 351–352</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>BUS CORE</td>
<td>ECO/IB 351</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE PHIL-T/RS</td>
<td>PHIL-T/RS ELEC</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>18</td>
<td>18</td>
</tr>
<tr>
<td>Fourth Year</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAJOR</td>
<td>ACC 451–470</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>MAJOR</td>
<td>ACC 364–384</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>BUS CORE</td>
<td>ACC 474–476</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE ELECT</td>
<td>S/CJ 225</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE HUMN</td>
<td>HUMN ELECT</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE PHED</td>
<td>PHED ELEC</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>16</td>
<td>13</td>
</tr>
<tr>
<td>TOTAL: 133-135 CREDITS</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1 See note on Math Options on page 223.
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.

ACC 460 3 cr.
Advanced Accounting I
(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 3 cr.
Cost Accounting
(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 3 cr.
Advanced Managerial Accounting
(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 470 3 cr.
Law for Accountants
(Prerequisite: MGT 251) A study of the law of contracts, sales, commercial paper, secured transactions, rights of debtors and creditors, and bankruptcy.

ACC 471 3 cr.
Management Auditing
(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 3 cr.
Advanced Accounting II
(Prerequisite: ACC 362) A study of the theories and promulgated standards of accounting related to international operations, partnerships, estates and trusts, installment sales, consolidations, SEC reporting, and interim financial reporting.

ACC 473 3 cr.
Advanced Auditing
(Prerequisite: ACC 364) An examination of statistical analysis in making audit judgments, internal control and auditing issues relating to EDI systems; risk assessment and testing for certain transaction cycles; and other attestation services and reports.

ACC 474 3 cr.
Accounting Information Systems
(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/IB 475 3 cr.
International Accounting
(Prerequisites: ACC 252 or 254, ECO 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.

ACCOUNTING INFORMATION SYSTEMS

Robyn Lawrence, Ph.D., Chair, Accounting Department
See Accounting for faculty listing.

Overview
The explosion of electronic commerce, the use of enterprise systems, the growth of global alliances and information sharing, and other information technology-driven developments have expanded the 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). AIS professionals provide value to their organizations or clients by using their skills to help generate reliable, timely, and relevant decision-making information for the use of managers and other stakeholders. These professionals assist their organizations or clients in assessing the opportunities and risks associated with specific information technology deployments. They also oversee the implementation and management of accounting systems within their organizations. In the assurance sector, AIS professionals often function as information systems auditors. They provide auditing, technology, and other skills to support traditional as well as paperless audits. They are often called upon to assist in special investigations such as fraud audits and forensic accounting.

The objective of the AIS major is to prepare students to function in the corporate, public accounting, and non-profit sectors as entry-level accounting systems professionals. Students can select electives for either an accounting information systems auditing or a general information systems management emphasis. To receive a degree in accounting information systems, students must earn at least a “C” in each of the two accounting principles courses (ACC 251-252 or equivalent).

AIS majors are encouraged to pursue professional certifications such as the Certified Information Systems Security Professional (CSSP), the Certified Information Systems Auditor (CISA), and the Certified Internal
minor in Accounting Information Systems

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 251-252 or ACC 253-254, ACC 474, AIS 372, AIS 373, AIS 381, AIS 382, AIS 367, and two additional 300- or 400-level AIS courses. 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 Accounting/AIS courses.

Course Descriptions

AIS 372 3 cr. Accounting for Electronic Business (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. (Also listed as EC 372.)

AIS 373 3 cr. Object Oriented Applications in Business and Accounting (Prerequisite: ACC 474) 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.

AIS 381 3 cr. Electronic Business Information Systems Security and Ethics (Prerequisite: AIS 362) 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. (Also listed as EC 471.)

AIS 473 3 cr. Advanced Auditing Issues: Information Systems Auditing (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 474 3 cr. Accounting Information Systems (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.

Accounting Information Systems Curriculum

Department and Number  
Descriptive Title of Course  
Fall Cr.  
Spr. Cr.

First Year

| GE S/BH | EC 153-154 | Prin. of Micro-Macro Economics | 3 | 3 |
| GE WRIT-G-SPCH | WRITG 107-COMM 100 | Composition—Public Speaking | 3 | 3 |
| GE PHIL-T/RS | PHIL 120-T/RS 121 | Introduction to Philosophy–Theology I | 3 | 3 |
| GE C/JL | C/JL 194 | Computing and Information Literacy | 3 | 3 |
| GE QUAN | MATH ELECT† | Math Option (two courses) | 5-4 | 3-4 |
| GE HUMN | HUMN ELECT† | Humanities Elective | | |
| GE FSEM-PHED | INTD 100-PHED ELECT | Freshman Seminar—Physical Education | 1 | 1 |

Second Year

| BUS CORE | ACC 251-252 | Financial Accounting I–II | 3 | 3 |
| BUS CORE | STAT 251-252 | Statistics for Business I–II | 3 | 3 |
| BUS CORE | MGT 251 | Legal Environment of Business | 3 | 3 |
| GE PHIL-T/RS | PHIL 210-T/RS 122 | Ethics–Theology II | 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 | 3 |

Third Year

| MAJOR | ACC 361 | Intermediate Accounting I | 3 | |
| MAJOR | ACC 362 or ACC 461 | Interned. Accr. II OR Cost Accr. | 3 | |
| MAJOR | ACC 364 | Auditing | 3 | |
| MAJOR | AIS 362 | Database Mgmt. Sys. for Elec. Bus. | 3 | |
| BUS CORE | ACC 474 | Accounting Information Systems | 3 | |
| BUS CORE | MGT 351-352 | Principles of Management I–II | 3 | 3 |
| BUS CORE | FIN 351-MKT 351 | Intro. to Finance–Principles of Marketing | 3 | 3 |
| BUS CORE | OIM 351-OIM 352 | Intro to Mgt. Science–Intro to Oper. Mgt. | 3 | 3 |
| BUS CORE | ECO/J/B 351 | Environment of International Business | 3 | |

Fourth Year

| MAJOR | AIS 373 | Object Oriented Apps. in Bus. & Accr. | 3 | |
| MAJOR | AIS 372 | Accounting for Electronic Business | 3 | |
| MAJOR | AIS 483 | Business Apps of Comm Networks | 3 | |
| MAJOR | AIS ELECT† | AIS Electives | 3 | 3 |
| BUS CORE | MGT 455 | Business Policy & Strategy | 3 | |
| GE HUMN | HUMN ELECT | Humanities Elective | 3 | 3 |
| GE PHIL-T/RS | PHIL-T/RS ELECT | Philosophy or T/RS Elective | 3 | 3 |
| GE ELECT | FREE ELECT† | Free Electives | 3 | 3 |
| GE PHED | PHED ELECT | Physical Education | 2 | 1 |

TOTAL: 136-138 CREDITS

† See note on Math Options on page 223.
‡ If EDU 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.
§ If a third math course is required, it replaces this GE elective.

Recommended audit electives include AIS 473 or ACC 473, AIS 381 and AIS 367. General systems electives include AIS 367, ACC 461, ACC 460, ACC 470 and ACC 365.

AIS 367 3 cr. Enterprise Accounting and Control (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.
BUSINESS ADMINISTRATION

Len Tischler, Ph.D., Chair
See Management 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 Descriptions

BUAD 470 Enterprise Information Systems
(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
(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-processing 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.

Business Administration Curriculum

<table>
<thead>
<tr>
<th>First Year</th>
<th>Department and Number</th>
<th>Descriptive Title of Course</th>
<th>Fall Cr.</th>
<th>Spr. Cr.</th>
</tr>
</thead>
<tbody>
<tr>
<td>GE S/BH</td>
<td>ECO 153–154</td>
<td>Prim. of Micro–Macro Economics</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE WRTG–SPCH</td>
<td>WRTG 107–COMM 100</td>
<td>Composition–Public Speaking</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE C/IL</td>
<td>C/IL 104</td>
<td>Computer and Information Literacy</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE QUAN</td>
<td>MATH ELECT</td>
<td>Math Option (two courses)</td>
<td>3-4</td>
<td>3-4</td>
</tr>
<tr>
<td>GE PHIL/T/RS</td>
<td>PHIL 120–T/RS 121</td>
<td>Intro to Philosophy–Theology I</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE HUMN</td>
<td>HUMN ELECT</td>
<td>Humanities Elective</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE FSEM</td>
<td>INTD 100</td>
<td>Freshman Seminar</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>GE PHED</td>
<td>PHED ELECT</td>
<td>Physical Education</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>

Second Year

<table>
<thead>
<tr>
<th>First Year</th>
<th>Department and Number</th>
<th>Descriptive Title of Course</th>
<th>Fall Cr.</th>
<th>Spr. Cr.</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS CORE</td>
<td>ACC 253–254</td>
<td>Financial–Managerial Accounting</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>BUS CORE</td>
<td>STAT 251–252</td>
<td>Statistics for Business I–II</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE PHIL/T/RS</td>
<td>PHIL 210–T/RS 122</td>
<td>Ethics–Theology II</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE MGT</td>
<td>NSCI ELECT</td>
<td>Natural Science Electives</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE HUMN</td>
<td>HUMN ELECT</td>
<td>Humanities Elective</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>BUS CORE</td>
<td>MGT 251</td>
<td>Legal Environment of Business</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE PHED</td>
<td>PHED ELECT</td>
<td>Physical Education</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>

Third Year

<table>
<thead>
<tr>
<th>First Year</th>
<th>Department and Number</th>
<th>Descriptive Title of Course</th>
<th>Fall Cr.</th>
<th>Spr. Cr.</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS CORE</td>
<td>ECO 351</td>
<td>Environment of International Business</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>BUS CORE</td>
<td>FIN 351–MKT 351</td>
<td>Intro to Finance–Principles of Marketing</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>BUS CORE</td>
<td>MGT 351–352</td>
<td>Principles of Management I–II</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>BUS CORE</td>
<td>OIM 351–352</td>
<td>Mgt. Science–Operations Mgt.</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MAJOR1</td>
<td>BUS ELECT</td>
<td>Business Electives</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>GE ELECT</td>
<td>FREE ELECT</td>
<td>Free Elective</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE PHIL/T/RS</td>
<td>PHIL–T/RS ELECT</td>
<td>Philosophy or T/RS Elective</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>

Fourth Year

<table>
<thead>
<tr>
<th>First Year</th>
<th>Department and Number</th>
<th>Descriptive Title of Course</th>
<th>Fall Cr.</th>
<th>Spr. Cr.</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAJOR1</td>
<td>BUS ELECT</td>
<td>Business Electives</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>BUS CORE</td>
<td>MGT 455</td>
<td>Business Policy &amp; Strategy</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>BUS CORE</td>
<td>OIM 471</td>
<td>Business Information Management</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE HUMN</td>
<td>HUMN ELECT</td>
<td>Humanities Elective</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE ELECT</td>
<td>FREE ELECT</td>
<td>Free Electives</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE PHED</td>
<td>PHED ELECT</td>
<td>Physical Education</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

TOTAL: 130-132 CREDITS

1 See note on Math Options on page 223.
2 Major courses can be chosen from any of the functional areas once the prerequisites have been satisfied.

ECONOMICS

Faculty
Satyajit Ghosh, Ph.D., Chair
Frank P. Corcione, Ph.D.
Riaz Hussain, Ph.D.
Ioannis N. Kallianiotis, Ph.D.
Hong V. Nguyen, Ph.D.
Ioannis N. Kallianiotis, Ph.D.
Murli Rajan, Ph.D.
Edward M. Scali, 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.

Minor in Economics
18 credits consisting of ECO 153, 154 (or ECO 101, 102), 361, 362, plus two upper level ECO courses (Kania School students may not use ECO 351).

Course Descriptions

ECO 101 (S) Current Economic Issues
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 153-154 or other upper-level economics courses.

ECO 103 (S) The Economics of Environmental Issues
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. Not open to Economics or Business majors or minors.

ECO 153 (S) Principles of Microeconomics
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
This course analyzes the determinants of aggregate economic activity. The main areas studied are the monetary and banking system, the composition and fluctuations of national income, inflation, and monetary and fiscal policy.
Economics Curriculum

<table>
<thead>
<tr>
<th>First Year</th>
<th>Department and Number</th>
<th>Descriptive Title of Course</th>
<th>Fall Cr.</th>
<th>Spr. Cr.</th>
</tr>
</thead>
<tbody>
<tr>
<td>GE S/BH</td>
<td>ECO 153-154</td>
<td>Principles of Micro-Macro Economics</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE WRTG-S/PCH</td>
<td>COMM 108-109, WRTG 107</td>
<td>Public Speaking-Composition</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE PHIL-T/RS</td>
<td>PHIL 120-T/PHIL 121</td>
<td>Introduction to Philosophy-Theology I</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE C/I</td>
<td>C/I 104</td>
<td>Computing and Information Literacy</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE QUAN</td>
<td>MATH ELECT3</td>
<td>Math Options (two courses)</td>
<td>3-4</td>
<td>3-4</td>
</tr>
<tr>
<td>GE HUMN</td>
<td>HUMN ELECT3</td>
<td>Humanities Elective</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE FSEM-PHED</td>
<td>INTD 100-PHED ELECT</td>
<td>Freshman Seminar-Physical Education</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>16-17</td>
<td>16-17</td>
</tr>
</tbody>
</table>

| Second Year | MAJOR | ECO 361-362 | Intermediate Micro-Macro Econ. | 3 | 3 |
|             | OCGNATE4 | STAT 253 | Statistics for Economics | 3 | 3 |
|             | OCGNATE4 | ACC 253 | Financial Accounting | 3 | |
|             | OCGNATE4 | COGNATE ELECT | Cognate Elective | 3 | 3 |
|             | GE PHIL-T/RS | PHIL 210-T/PHIL 122 | Ethics-Theology II | 3 | 3 |
|             | GE NSCI | NSCI ELECT | Natural Science Electives | 3 | 3 |
|             | GE HUMN | HUMN ELECT | Humn. Electives (HIST 110–111 recomm.) | 3 | 3 |
|             | GE ELECT | FREE ELECT3 | Free Elective | 3 | |
|             |           |                       | 18      | 18      |

| Third Year | MAJOR | ECO 363 | Applied Econometrics | 3 | 3 |
|           | MAJOR | ECO ELECT | Economics Elective | 3 | |
|           | OCGNATE4 | ECO 351 | Environment of Internat’l Business | 3 | |
|           | OCGNATE4 | FIN 351-ELECT | Intro. to Fin.–Cognate Electives | 3 | 3 |
|           | OCGNATE4 | COGNATE ELECT | Cognate Elective | 3 | |
|           | GE PHIL-T/RS | PHIL 210-T/PHIL 122 | Philosophy or T/RS Elective | 3 | 3 |
|           | GE ELECT | FREE ELECT3 | Free Elective | 3 | |
|           |           |                       | 15      | 15      |

| Fourth Year | MAJOR | ECO 460 | Monetary & Fin. Econ. | 3 | |
|            | MAJOR | ECO SEM-ECO 471 | Eco. Seminar–Advanced Macro. | 3 | 3 |
|            | OCGNATE4 | COGNATE ELECT | Cognate Electives | 3 | 3 |
|            | GE HUMN | HUMN ELECT | Humanities Elective | 3 | |
|            | GE ELECT | FREE ELECT | Free Electives | 6 | 5 |
|            | GE PHED | PHED ELECT | Physical Education | 1 | |
|            |           |                       | 16      | 16      |

TOTAL: 130-132 CREDITS

1 See notes on Math Options on page 223.

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 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 KSOE 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.

5 ECO/IB 351 3 cr.

(D) Environnement of International Business

(Prerequisites: ECO 153-154 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 361 3 cr.

Intermediate Microeconomics

(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 3 cr.

Intermediate Macroeconomics

(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 3 cr.

Applied Econometrics

(Prerequisites: ECO 361, ECO 362, STAT 253) This course deals with the modeling and estimation of relationships as applied to economics. The topics covered include single-equation structural modeling and time-series modeling; estimation methods and problems; testing of economic hypotheses, and forecasting. The emphasis of the course is on applications involving the use of actual data.

ECO 364 3 cr.

Labor Economics and Labor Regulation

(Prerequisites: ECO 153-154) Analysis of labor supply and demand; measurement and theory of unemployment; occupational choice; wage differentials; labor-market issues and policies; labor legislation.

ECO 365 3 cr.

Mathematical Economics

(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 hypotheses are covered.

ECO 375 3 cr.

International Economics

(Prerequisites: ECO 153-154 or ECO 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.

ECO 410 3 cr.

Economics for K-12 Teachers

The 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. Not a substitute for other economics courses.

ECO 460 3 cr.

Monetary and Financial Economics

(Prerequisite: ECO 362, FIN 351) This course emphasizes the interrelationships between financial markets, financial institutions and aggregate economic activity. Topics include: an overview of the 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 465 3 cr.

Development Economics

(Prerequisites: ECO 153-154) 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 3 cr.

Law and Economics

(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  3 cr.
Advanced Macroeconomics
(Prerequisites: ECO 362, 460, 363 or permis-
sion of the instructor) This course centers on the
study of recent advances in macroeconomic
analysis. Topics include empirical macroeco-
nomic analysis, open-economy macroeconomics,
the role of expectations, economic policy and
economic growth.

ECO 490  3 cr.
Economics Seminar
Advanced study of a special area in economics.
Topics and prerequisites vary.

The following courses are offered infrequently:
ECO 102 Fundamentals of Economic
Analysis
ECO 200 (S) Economic Security and
Personal Finance
ECO 366 Economic Geography
ECO 461 Managerial Economics
ECO 462 Urban and Regional Economics
ECO 463 Public Finance and Taxation
ECO 464 Environmental Economics &
Policy

Please contact the department chair for
course schedules and detailed descriptions.

### ELECTRONIC COMMERCE

Nabil A. Tamimi, Ph.D., Chair, Operations
Management Department
See Operations Management for faculty listing.

#### Overview

Electronic commerce is an emerging busi-
ness environment that provides common
business services, multimedia content publish-
ning and secure interactive web sites by inte-
grating back-end and front-end applications.
The necessary electronic commerce infrastruc-
ture is provided by integrating information
and telecommunications fundamentals necessary
to develop enterprise networks to conduct busi-
ness on the Internet. Topics include: network
fundamentals and technologies, wireless net-
works and the Internet, network security, man-
agement, and trends. Discussion is focused on
business applications within and among organi-
zations. Hands-on experience and case studies
will be used to illustrate concepts.

**EC 362  3 cr.**
**Database Management Systems for
Electronic Business**
(Prerequisite: EC 251 or equivalent) This course
deals with the use of database management sys-
tems to support electronic business. Topics
include: data modeling; database design and
normalization; structured query language (SQL);
database application development; integration of
enterprise links – all at lower costs. The pheno-
menal growth in online commerce increases
the demand for people with skills in areas
such as electronic commerce infrastructure, new
business initiatives, law and security, elec-
tronic payment, financial services, and inter-
active marketing. The program below develops
the knowledge and skills necessary for linked
organizations in the new millennium.

#### Minor in Electronic Commerce

To minor in Electronic Commerce the
student must take a minimum of 18 credits.
Three courses are required: C/JIL 104 (or
equivalent), EC 251, and OIM 471 and any
three of the following: EC 362, 370, 371, 372,
461, 462, 470, 471, 472, 473; OIM
353, 363, 470.

### Course Descriptions

**EC 251  3 cr.**
**Introduction to Electronic Business**
(Prerequisite: C/JIL 104) This course explores
how the Internet has revolutionized the buying
and selling of goods and services in the market-
place. Topics include: Internet business models,
electronic commerce infrastructure, designing
online storefronts, payment acceptance and secu-
ritv issues, and the legal and ethical challenges
of electronic commerce. Students will also gain
hands-on experience in creating a web site using
an HTML authoring tool.

**EC 361  3 cr.**
**Electronic Business Communication Networks**
(Prerequisite: EC 251 or equivalent) The course
is designed to provide students with networking
and telecommunications fundamentals necessary
to develop enterprise networks to conduct busi-
ness on the Internet. Topics include: network
fundamentals and technologies, wireless net-
works and the Internet, network security, man-
agement, and trends. Discussion is focused on
business applications within and among organi-
zations. Hands-on experience and case studies
will be used to illustrate concepts.

**EC 362  3 cr.**
**Database Management Systems for
Electronic Business**
(Prerequisite: EC 251 or equivalent) This course
deals with the use of database management sys-
tems to support electronic business. Topics
include: data modeling; database design and
normalization; structured query language (SQL);
database application development; integration of

### Electronic Commerce Curriculum

#### First Year

<table>
<thead>
<tr>
<th>Department and Number</th>
<th>Descriptive Title of Course</th>
<th>Fall Cr.</th>
<th>Spr. Cr.</th>
</tr>
</thead>
<tbody>
<tr>
<td>GE S/BH</td>
<td>ECO 153-154</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE SPCH-WRTG</td>
<td>COMM 100-WRTG 107</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE PHIL-TRS</td>
<td>PHIL 120-T/RS 121</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE C/JIL</td>
<td>C/JIL 104</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE QUAN</td>
<td>MATH ELECT1</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE HUMN</td>
<td>HUMN ELECT2</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE FSEM-PHED</td>
<td>INTD 100-PHED ELECT</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Prin. of Micro-Macro Economics</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Public Speaking–Composition</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Introduction to Philosophy–Theology I</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Computer and Information Literacy</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Math Option (two courses)</td>
<td>3-4</td>
<td>3-4</td>
</tr>
<tr>
<td></td>
<td>Humanities Elective</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Freshman Seminar–Physical Education</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

#### Second Year

<table>
<thead>
<tr>
<th>Major</th>
<th>Descriptive Title of Course</th>
<th>Fall Cr.</th>
<th>Spr. Cr.</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUS CORE ACC</td>
<td>ECO 253-254</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>BUS CORE STAT</td>
<td>STAT 251-252</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>BUS CORE MGT</td>
<td>MGT 251</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE PHIL-TRS</td>
<td>PHIL 210-T/RS 122</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>MAJOR</td>
<td>EC 251</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>BUS CORE OIM</td>
<td>OIM 471</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE HUMN</td>
<td>HUMN ELECT</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE ELECT</td>
<td>FREE ELECT2</td>
<td>3</td>
<td>3</td>
</tr>
</tbody>
</table>

#### Third Year

<table>
<thead>
<tr>
<th>Major</th>
<th>Descriptive Title of Course</th>
<th>Fall Cr.</th>
<th>Spr. Cr.</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAJOR</td>
<td>EC 362</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>MAJOR</td>
<td>EC ELECT</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>BUS CORE MGT</td>
<td>MGT 351-352</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>BUS CORE OIM</td>
<td>OIM 351-OIM 352</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE PHIL-T/RS</td>
<td>PHIL 110-T/RS ELECT</td>
<td>3</td>
<td>3</td>
</tr>
</tbody>
</table>

#### Fourth Year

<table>
<thead>
<tr>
<th>Major</th>
<th>Descriptive Title of Course</th>
<th>Fall Cr.</th>
<th>Spr. Cr.</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAJOR</td>
<td>EC 461</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>MAJOR</td>
<td>EC ELECT</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>BUS CORE MGT</td>
<td>MGT 455</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE HUMN</td>
<td>HUMN ELECT</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE NSCI</td>
<td>NSCI ELECT</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE ELECT</td>
<td>FREE ELECT</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE PHED</td>
<td>PHED ELECT</td>
<td>3</td>
<td>3</td>
</tr>
</tbody>
</table>

#### TOTAL: 133-135 CREDITS

1. See note on Math Options on page 223.
2. If a third math course is required, it replaces this GE elective.
3. If a third math course is required, it replaces this GE elective.

---

web server and database server; distributed data-
bases; data warehousing; and data mining. (Also
listed as AIS 362.)

EC 370  3 cr.
**Interactive Marketing**
(Prerequisites: MKT 351, junior standing) This
course examines the integration of evolving
interactive technologies in the design and imple-
mentation 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. (Also listed as
MKT 370.)

EC 371  3 cr.
**Investments**
(Prerequisites: FIN 351, junior standing) This
course provides students with an overview of the
fundamentals of investing. Topic coverage will
include debt, equity and derivatives markets.
Internet resources will be used to develop secu-
ritv valuation models.
EC 372 3 cr.
Accounting for Electronic Business
(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. (Also listed as AIS 372.)

EC 461 3 cr.
Internet Applications Development
(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 databases. Course delivery will be primarily conducted through hands-on assignments and projects.

EC 462 3 cr.
Projects in Electronic Business
(Prerequisite: EC 461 or permission of instructor) This course will integrate knowledge and skills in business and technology to acquire the big picture of electronic business. The purpose of this course is to synthesize knowledge acquired in different courses to develop a secure working electronic commerce site. Students will work in a team-oriented environment under the guidance of the instructor.

EC 470 3 cr.
Supply Chain Management
(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. (EC 470 and OIM 366 are jointly offered.)

EC 471 3 cr.
Information Systems Security
(Prerequisite: OIM 471 or permission of instructor) The course provides students with a basic understanding of the technical, managerial, legal and ethical issues of information security. Topics include cryptographic systems, IP concepts and behavior, Internet and systems threat assessment, secure transactions and payments, antivirus tools, password management and cracking, and system auditing. Students will largely utilize Microsoft Windows platforms, but other operating systems will be discussed. (Also listed as AIS 381.)

EC 472 3 cr.
Electronic Business and Entrepreneurship
(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. (Also listed as OIM 472.)

EC 473 3 cr.
Business Applications of Communication Networks
(Prerequisite: OIM 471 or permission of instructor) 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. (Also listed as AIS 483 and OIM 473.)

EC 475 3 cr.
Networking and Security
(Prerequisite: two upper level Information Systems courses and four upper division Finance courses) The development of a general understanding of network architecture and the protocols that govern packet exchange. Students will learn about securing networks from threats and attacks. (Also listed as OIM 475.)

FIN 351 3 cr.
Introduction to Finance
(Prerequisites: junior standing, ECO 153-154 or 101, ACC 252 or 253, or permission of the instructor) This course introduces students to the field of finance. 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 361 3 cr.
Working Capital Management
(Prerequisite: FIN 351) This course provides advanced study in the financial-management area through detailed analysis of financial statements, liquidity crises, cash optimization, credit analysis, banking arrangements, loan contracts, commercial paper and the use of money market.
### 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 Descriptions**

**ECO/IB 351 (D) Environment of International Business**

*Prerequisites: ECO 153-154, junior standing*

This course introduces the student to the field of international business, including 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 375 International Economics**

*Prerequisites: ECO 153-154 or ECO 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.
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 deficits, 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 3 cr.
**European Business**
(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 in Central and Eastern Europe (CEE) as well as the nations of the European Union. The elimination of barriers to trade, and the response of companies inside and outside the EU to the threats and opportunities of the Single Market are examined.

**IB 478 Business in China**
(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**
(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. (Also listed as MGT 495 and MKT 495.)

**Management**

**Faculty**
Len Tischler, Ph.D., Chair
Gerald Biberman, Ph.D.
Alan L. Brumagim, Ph.D.
Cynthia W. Cann, Ph.D.
Saty P. Chattopadhyay, Ph.D.
Jafar Chowdury, Ph.D.
Irene Golli, Ph.D.
Robert J. L. McKee, Ph.D.
Abhijit Roy, Ph.D.
Delia A. Sumrall, D.B.A.
John M. Zych, D.B.A.

**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.

**Tracks for Majors in Management**
Management majors may choose either of two tracks if they wish.

Management of Structures and Systems: This track focuses on the skills a successful manager needs to plan, organize, maintain and improve an organization's structures and systems. In addition to the required Business core courses, each student will take MGT 460, 461, 462 and any three other upper-level management electives.

Management of People and Teams: This track focuses on the skills a successful manager needs to meet the challenges of people and teams in today's workplace. In addition to the required Business core courses, each student will take at least three of the following four courses: MGT 361, 362, 471 or 474. In addition, the student will take other upper-level Management electives to complete 18 credit hours of electives in Management.

**Minors in Management**
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 above.

**Course Descriptions**

MGT 161 3 cr.
**Introduction to Business**
Nature, types and principles of business. Overview of business functions – finance, marketing, production, accounting, and management – in an analytical framework. Attention to business environment: legal, governmental, social and ethical. Enrollment is restricted to associate degree Business students. Non-Business students may take this course as a free elective with the
permission of the dean of the College of Graduate and Continuing Education.

MGT 251 3 cr.
Legal Environment of Business
The nature, sources, formation, and applications of law. Judicial function, court system, litigation and other methods of resolving disputes. Legislation 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 3 cr.
Principles of Management I
(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.

MGT 352 3 cr.
Principles of Management II
(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, and group skills.

MGT 361 3 cr.
Human Resources Management
(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 3 cr.
Employee-Management Relations
(Prerequisite: MGT 351) This examines national employee-management relations. Issues in union and nonunion settings and inter-firm competition in employment and equal-employment opportunity will be discussed, as well as future trends and skills involved in managing and working role of the manager from planning, organizing, controlling performance. (Prerequisite: MGT 351 or permission of the

MGT 363 3 cr.
Organizational Social Responsibility
(Prerequisite: MGT 351) This examines the role of corporations and the responsibilities that come with them. The course will cover topics such as corporate social responsibility, ethical decision making, and corporate governance.

MGT 450 3 cr.
Organization Theory
(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 3 cr.
Managing Through Systems and Quality
(Prerequisite: 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, 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 3 cr.
Project Management in Organizations
(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. (Also listed as OIM 462.)

MGT 471 3 cr.
Group Dynamics
(Prerequisite: MGT 351 or permission of instructor) Survey of constructs, research and applications of small group phenomena in an organizational context. 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 3 cr.
Organizational Social Responsibility
(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 rela-
MARKETING

Faculty
Len Tischler, Ph.D., Chair
Gerald Biberman, Ph.D.
Alan L. Braamgin, Ph.D.
Cynthia W. Cann, Ph.D.
Saty P. Chattopadhyay, Ph.D.
Jafor Chowdhury, Ph.D.
Irene Goll, Ph.D.
Robert L. McKeage, Ph.D.
Abhijit Roy, Ph.D.
Dela A. Sumrall, D.B.A.
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 functions: marketing research and the firm's interaction with wholesalers and retailers. The student will develop the quantitative and qualitative skills needed to succeed in a real business environment.

Course Descriptions

MKT 351 Principles of Marketing
(Prerequisite: junior standing, ECO 153-154 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 361 Marketing Research
(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.

Marketing Curriculum

<table>
<thead>
<tr>
<th>Department and Number</th>
<th>Descriptive Title of Course</th>
<th>Fall Cr.</th>
<th>Spring Cr.</th>
</tr>
</thead>
<tbody>
<tr>
<td>GE SBH</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GE SPCH-WRTG</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GE PHIL-TRS</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GE C/JL</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GE QUAN</td>
<td>MATH ELECT^2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GE HUMN</td>
<td>HUMN ELECT^2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GE FSEM</td>
<td>INTD 100</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GE PHED</td>
<td>PHED ELECT</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Second Year

| BUS CORE | ACC 253–254 | Financial-Managerial Accounting | 3 | 3 |
| BUS CORE  | STAT 251–252 | Statistics for Business I–II | 3 | 3 |
| BUS CORE  | MGT 251    | Legal Environment of Business | 3 | 3 |
| GE PHIL-T/R | PHIL 210 | Ethics | 3 | 3 |
| GE PHIL-T/R | T/RS 122 | Theology II | 3 | 3 |
| GE NSCI    | NSCI ELECT | Natural Science Electives | 3 | 3 |
| GE HUMN    | HUMN ELECT | Humanities Electives | 3 | 3 |
| GE ELECT   | FREE ELECT^1 | Free Elective | 3 | 3 |

Third Year

| MAJOR    | MKT 361 | Marketing Research | 3 |
| MAJOR    | MKT 362 | Consumer Behavior | 3 |
| BUS CORE | MKT 351–352 | Principles of Marketing–Intro. to Finance | 3 | 3 |
| BUS CORE | ECOIB 351 | Environment of Intl. Business | 3 | 3 |
| GE PHIL-T/R | PHIL 7/T/RS ELECT | Philosophy or T/R Elective | 3 | 3 |

Fourth Year

| MAJOR    | MKT 470–476 | Mkt. Communications–Mkt Strategy | 3 | 3 |
| MAJOR    | MKT ELECT  | Marketing Electives | 3 | 3 |
| BUS CORE | MGT 455   | Business Policy & Strategy | 3 | 3 |
| BUS CORE | OIM 471   | Business-Information Management | 3 | 3 |
| GE HUMN  | HUMN ELECT | Humanities Elective | 3 | 3 |
| GE ELECT | FREE ELECT | Free Electives | 3 | 3 |
| GE PHED  | PHED ELECT | Physical Education | 1 | 1 |

TOTAL: 130-132 CREDITS

1 If a third math course is required, it replaces this GE elective.
2 If a third math course is required, it replaces this GE elective.
3 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.
4 One GE free elective in the fourth year must then be taken as a humanities elective.

MKT 362 Consumer Behavior
(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
(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. (Also listed as EC 370.)
MKT 470 3 cr.
Marketing Communications
(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 results 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 3 cr.
Sales Force Management
(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 3 cr.
Retailing Management
(Prerequisites: MGT 352, FIN 351, OIM 351; senior standing) This course focuses on the decision areas facing retail managers, including retailing strategy, store layout, promotion, pricing and personnel.

MKT 474 3 cr.
Personal Selling
(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/IB 475 3 cr.
(D) International Marketing
(Prerequisite: MKT 351, ECO 351) Analysis of marketing strategies of multinational corporations with emphasis on the internal environment of country markets. Discussions include comparisons of different regional markets along socio-economic, political and cultural lines; different types of international market barriers and corresponding market-entry strategies.

MKT 476 3 cr.
Marketing Strategy
(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 495 3 cr.
European Business Experience
(Prerequisites: MKT 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. (Also listed as IB 495 and MGT 495.)

OPERATIONS MANAGEMENT

Faculty
Nabil A. Tamimi, Ph.D., Chair
Ying I. Chien, Ph.D.
S. Kingsley Gnanendran, Ph.D.
Deborah J. Gougeon, Ph.D.
Prasadrao Kakumanu, Ph.D.
Satyanarayana V. Pratipati, Ph.D.
Rose Sebastianelli, Ph.D.
Ling Xue, Ph.D.

Overview
Operations Management is primarily concerned with the effective management of production and operations systems in manufacturing and service organizations. 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

Minor in Operations Management
A student must take a minimum of 18 credits: four business core courses – STAT 252 and OIM 351, 352 and 471 – and two electives from OIM and EC courses.

Course Descriptions

STAT 251 3 cr.
(Q) Statistics for Business I
(Prerequisite: MATH 106 and C/IL 104) Detailed coverage of descriptive statistics. An introduction to the elements of probability theory and decision theory, and index numbers. The major discrete and continuous probability distributions are covered with an emphasis on business applications. Data analysis will be done using appropriate software.

STAT 252 3 cr.
(Q) Statistics for Business II
(Prerequisite: STAT 251) A survey of inferential statistical methods covering sampling distributions, interval estimation, hypothesis testing, goodness-of-fit tests, analysis of variance, regression and correlation analysis, and non-parametric statistics. Data analysis will be done using appropriate software.

STAT 253 3 cr.
Statistics for Economics
(Prerequisites: MATH 106 and C/IL 104) Covariance of statistical tools to analyze economic data. Topics include measures of central tendency, dispersion, probability distributions, index numbers, time series analysis, regression and correlation, and analysis of variance. Data analysis will be done using appropriate software.

OIM 351 3 cr.
Introduction to Management Science
(Prerequisite: STAT 251) A survey of quantitative techniques used to analyze and solve business problems. Topics include linear programming, transportation methods, waiting line models, project scheduling, and simulation. Emphasis is placed on model building and analysis using spreadsheet software.

OIM 352 3 cr.
Introduction to Operations Management
(Prerequisite: 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 353 3 cr.
Business Process Overview
(Prerequisite: C/IL 104) 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. (Also listed as EMT 351.)

OIM 363 3 cr.
Quality Management
(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 3 cr.
Supply Chain Management
(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. (Also listed as EC 470.)

OIM 462 3 cr.
Project Management in Organizations
(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. (Also listed as MGT 462.)

OIM 470 3 cr.
Production Planning and Control
(Prerequisite: OIM 352) This course is concerned with the study of production planning
## Operations Management Curriculum

<table>
<thead>
<tr>
<th>Department and Number</th>
<th>Descriptive Title of Course</th>
<th>Fall Cr.</th>
<th>Spr. Cr.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>First Year</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GE S/BH</td>
<td>ECO 153–154</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE SPCH–WRTG</td>
<td>COMM 100–105</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE PHIL/T/RS</td>
<td>PHIL 120–121</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE C/IL</td>
<td>C/IL 104</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE QUAN</td>
<td>MATH ELECT&lt;sup&gt;1&lt;/sup&gt;</td>
<td>3–4</td>
<td>3–4</td>
</tr>
<tr>
<td>GE HUMN</td>
<td>HUMN ELECT&lt;sup&gt;1&lt;/sup&gt;</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE FSEM–PHED</td>
<td>INTD 100–105/PHED ELECT</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td><strong>Second Year</strong></td>
<td></td>
<td>16–17</td>
<td>16–17</td>
</tr>
<tr>
<td>BUS CORE</td>
<td>ACC 253–254</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>BUS CORE</td>
<td>STAT 251–252</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE PHIL/T/RS</td>
<td>PHIL 210–212</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE HUMN</td>
<td>HUMN ELECT&lt;sup&gt;1&lt;/sup&gt;</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE ELECT</td>
<td>FREE ELECT&lt;sup&gt;1&lt;/sup&gt;</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td><strong>Third Year</strong></td>
<td></td>
<td>18</td>
<td>18</td>
</tr>
<tr>
<td>MAJOR</td>
<td>OIM ELECT</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MAJOR</td>
<td>OIM 363</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>BUS CORE</td>
<td>MGT 351–352</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>BUS CORE</td>
<td>MKT 351–352</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>BUS CORE</td>
<td>OIM 351–OIM 352</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>BUS CORE</td>
<td>ECO/IB 351</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE PHIL/T/RS</td>
<td>PHIL/T/RS ELECT</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td><strong>Fourth Year</strong></td>
<td></td>
<td>15</td>
<td>15</td>
</tr>
<tr>
<td>MAJOR</td>
<td>OIM 470</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MAJOR</td>
<td>OIM 566</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MAJOR</td>
<td>OIM ELECT</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>BUS CORE</td>
<td>MGT 455</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>BUS CORE</td>
<td>OIM 471</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE HUMN</td>
<td>HUMN ELECT</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE ELECT</td>
<td>FREE ELECT</td>
<td>3–6</td>
<td></td>
</tr>
<tr>
<td>PHED</td>
<td>PHED ELECT</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL: 130-132 CREDITS</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<sup>1</sup> See note on Math Options on page 223.

<sup>2</sup> 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. Another GE free elective in the fourth year must then be taken as a humanities elective.

<sup>3</sup> If a third math course is required, it replaces this GE elective.

### OIM 471
**Business Information Management**
(Prerequisite: OIM 351) 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 472
**Electronic Business and Entrepreneurship**
(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. (Also listed as EC 472.)

### OIM 473
**Business Applications of Communication Networks**
(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 designs 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. (Also listed as AIS 483 and EC 473.)

and control activities in an enterprise resourceplanning 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.
The Panuska College of Professional Studies prepares students in a wide range of professions, principally in allied health and education. The College has been designed with the conviction that all disciplines should be taught and understood through a balance of theory and practice. An exclusively theoretical understanding of a discipline is incomplete. Practice for which there is no understood context is of limited value. It is this belief that structures the College’s pedagogy and curriculum. Panuska College students receive exemplary preparation for the profession of their choice, and a solid education in the liberal arts and sciences. In addition, students perform community service annually as a requirement for graduation. In this way, the service aspects of their prospective careers can be understood in personal and comprehensible terms. Such an ethic has roots in antiquity, is Catholic and Jesuit in tradition and spirit, and responsive to contemporary needs. All of the College’s programs are accredited by the appropriate professional organizations.
### Community Health Education Curriculum

<table>
<thead>
<tr>
<th>Department and Number</th>
<th>Descriptive Title of Course</th>
<th>Fall Cr.</th>
<th>Spr. Cr.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>First Year</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAJOR NURS 100</td>
<td>Family Health</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MAJOR HADM 112</td>
<td>Health Systems</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE FSEM INTD 100</td>
<td>Freshman Seminar</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>GE SPCH COMM 100</td>
<td>Public Speaking</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE PHIL-T/RS PHIL 120</td>
<td>Introduction to Philosophy</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE WRTG WRTG 107</td>
<td>Composition</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE C/IL C/IL 104</td>
<td>Computing &amp; Info. Lit. for Business</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE NSCI BIOL 110–111</td>
<td>Structure &amp; Function of the Human Body¹</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>GE NSCI BIOL 101–201</td>
<td>Intron. to Biol. Sciences–Anat. &amp; Phys.²</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE S/BH PSYC 110</td>
<td>Fundamentals of Psychology</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE PHED PHED ELECT</td>
<td>Physical Education</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>GE QUAN PSYC 210</td>
<td>Statistics in the Behavioral Sciences</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td><strong>Second Year</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAJOR HADM 293</td>
<td>Research in Health Administration</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MAJOR HRS 252</td>
<td>Workforce Education/Training¹</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MAJOR NUTR 101</td>
<td>Introduction to Nutrition¹</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>COGNATE COGNATE ELECT</td>
<td>Cognate Electives</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>GE PHIL-T/RS PHIL 210–T/RS121</td>
<td>Ethics-Theology I</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE PHIL-T/RS PHIL 316</td>
<td>American Perspectives in Medical Ethics</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE HUMN HUMN ELECT</td>
<td>Humanities Electives</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td><strong>Third Year</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAJOR HADM 314</td>
<td>Health Policy²</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MAJOR CHS 331</td>
<td>Health and Behavior</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MAJOR HADM 315</td>
<td>Cultural Diversity in Health Administration¹</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MAJOR EDUC 342</td>
<td>Education Media and Technology</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MAJOR HADM 340</td>
<td>Career Seminar²</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>COGNATE HADM 331–HADM 333</td>
<td>Interna1 Health Care–Manag, Epidemiology</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>COGNATE COGNATE ELECT</td>
<td>Cognate Elective</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE PHIL-T/RS T/R 122</td>
<td>Theology II</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE PHED PHED 112</td>
<td>First Aid &amp; CPR</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>GE ELECT FREE ELECT</td>
<td>Free Electives</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td><strong>Fourth Year</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAJOR HADM 316</td>
<td>Health Care Marketing¹</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MAJOR NURS 405</td>
<td>Health Writing for Publication</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MAJOR CHS 422</td>
<td>Substance Abuse Education</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>MAJOR INTD 380</td>
<td>Internship³</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>COGNATE COGNATE ELECT</td>
<td>Cognate Electives</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE HUMN HUMN ELECT</td>
<td>Humanities Electives</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>GE S/BH EDUC 222</td>
<td>Psychology of Education</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE ELECT FREE ELECT</td>
<td>Free Elective</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE PHED PHED ELECT</td>
<td>Physical Education</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL:</strong></td>
<td></td>
<td>16</td>
<td>15</td>
</tr>
</tbody>
</table>

1 Includes service-learning component

2 Biology 110-111 (6 credits) or Biology 101-201 (8 credits) will meet curriculum requirement

### COMMUNITY HEALTH EDUCATION

**Faculty**

- Daniel J. West, Ph.D., Chair
- Steven J. Szylowski, M.B.A., D.H.A., Program Director
- Prier C. Olden, Ph.D.
- Terri Freeman Smith, Ph.D.
- Robert J. Spinelli, D.B.A.
- William G. Wallick, Ph.D.

**Overview**

Community Health Education is an interdisciplinary major that prepares the undergraduate for careers in health education and promotion on local, state and federal levels as well as in public and private health agencies, industry, secondary schools, and health care institutions. The health educator’s role is to inform and motivate the community to maintain healthy practices, lifestyles, and decision-making skills. The student develops skills, knowledge, and abilities to address community health needs through educational interventions and direct service. The community health educator is a consultant, teacher, program planner, grant writer, and community organizer. Program highlights include 18 free cognate credit electives and 9 free credit electives that provide students with the ability to maintain credit hours in a current area of study or select elective courses in a focused area pertaining to community health education. Upon completion of the Bachelor of Science degree, students qualify to take the national exam to become a certified health education specialist. A comprehensive list of courses that qualify for electives will be provided to students by the academic advisor. Consult individual departments for specific course descriptions.

### COUNSELING AND HUMAN SERVICES

**Faculty**

- Oliver J. Morgan, Ph.D., Chair
- Ann Marie Toloczko, Ph.D., Program Director
- Elizabeth J. Jacob, Ph.D., Associate Program Director
- Lori Ann Bruch, Ed.D.
- Pornhip Chalungsooth, Ed.D.
- Thomas M. Collins, Ph.D.
- Rebecca Spirito Dalgin, Ph.D.
- Lee Ann M. Eschbach, Ph.D.
- Kevin Wilkerson, 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 B.S. in Counseling and Human Services program is fully accredited by the Council for Standards in Human Services Education (CSHSE). As a result of the national accreditation, all students graduating with a degree in CHS are eligible to apply for the Certified Human Services Professional credential upon graduation through the National Organization for Human Services (NOHS).

The CHS program has a multi-disciplinary perspective with special emphasis placed on the achievement of excellence in academic and professional competencies. The program and the department are committed to the enhancement of human development across the lifespan. Through the interplay of counseling, skill development, human services systems, rehabilitation services, service learning experiences and internships, the program prepares students for work in a variety of settings (e.g., agency, community, school) as counseling and human service professionals who situate their work within cultural, family and community (local, regional, national and global) contexts.

**Mission Statement**

The Counseling and Human Services 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 mission of the program is congruent with the mission of the University, Panuska College, and the Department of Counseling and Human Services. The CHS program embraces the tradition of excellence that is part of the University community. By promoting students’ personal and professional development of our students, the CHS program is committed to training culturally competent human services professionals and women and men for others. The program allies itself to the commitment of the Panuska College of Professional Studies’ mission to train students through a balance of theory and practice and community service learning experiences that are a vital part of the curriculum.

Major Requirements and Sequence of 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, electives allow students to develop competence in assisting specific populations. Students are required to complete 6 credits of internship totaling 350 hours in the field.

Students must maintain a minimum grade of C in all major and cognate courses. All full-time students must complete a minimum of 80 hours of service learning as a requirement toward graduation from the Panuska College of Professional Studies. Generally, full-time students complete a minimum of 10 hours of service learning during each fall and spring semester. College of Graduate and Continuing Education students will meet the service-learning requirement by completing major courses that have a service-learning component.

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-services positions in private or public settings. Additionally, CHS majors are also prepared for graduate study in counseling, human services, law, psychology, social work and other related social or behavioral science professions. Recent graduates have pursued doctoral and/or master’s degrees in counseling psychology, community rehabilitation or school counseling; clinical psychology; social work; and law. Recent graduates have pursued graduate degrees at the following institutions: Argosy University, Dickinson School of Law, Georgetown University, Columbia University, Santa Clara University, University of Pennsylvania, Fordham University, New York University, Adelphi University, University of Maryland Concentration, Lehigh University and The University of Scranton.

The Counseling and Human Services program leads to a Bachelor of Science degree that consists of a 131-credit curriculum, including 53 credits from CHS major and major elective courses. In addition to the University’s graduation requirements, CHS students must have at least a 2.0 GPA in all major and cognate courses for graduation.

Certified Human Services Professional Credential

As a result of the national accreditation of the B.S. in Counseling and Human Services program by the Council for Standards in Human Services Education (CSHSE), all CHS students are eligible to apply for the Certified Human Services Professional credential upon graduation. This credential, provided by the National Organization for Human Services (NOHS), recognizes the professional practice of human services professionals on a national level. The Certified Human Services Professional (HSP) program is administered by NOHS to recognize the achievement of individuals graduating from an accredited program who meet specified standards. To apply for the HSP credential, qualified applicants must submit an application form and supporting documents to NOHS. The initial certification period will be for three years from the date of issuance. More information and the application form and guidelines are available at http://nationalhumansservices.org.

Concentration in Rehabilitation Services

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. 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. Included in this concentration can be an emphasis on persons with addiction and substance-abuse disabilities. This concentration is for Counseling and Human Services majors only.

Combined Baccalaureate/Master’s Degree Program

Outstanding Counseling and Human Services majors are eligible for consideration in this program (please refer to the catalog sections on Special Programs or the College of Graduate and Continuing Education and to the Graduate Studies Catalog for specifics of the program). Community Counseling, Rehabilitation Counseling and School Counseling are graduate programs available for students of high academic quality and clear professional goals. Each graduate program is nationally accredited, and the Department of Counseling and Human Services is recognized regionally and nationally in Counselor Education. Three faculty received the Outstanding Counselor Educator Award for the state of Pennsylvania.

Pastoral Studies Track

The Departments of Counseling and Human Services and Theology/Religious Studies offer the Pastoral Studies track. The program is incorporated into the 131-credit B.S. in Counseling and Human Services and the 130-credit B.A. in Theology/Religious Studies. Students in the interdisciplinary program pursue a formal curriculum that includes interdisciplinary team-taught courses, experiential learning via an internship in pastoral studies and a capstone seminar to integrate professional experiences. The program is an excellent opportunity for students interested in pursuing advanced training in pastoral services (e.g., hospital or prison chaplaincies, parish assistants, youth ministers, etc.).

Completion of this program will be noted on the Counseling and Human Services major’s transcript. The student must either be pursuing a double major or a minor in Theology/Religious Studies. Students are required to complete the following courses specific to the program: CHS 439: Psychology and Spirituality; CHS 380: Internship in Pastoral Studies; and CHS 491: Pastoral Studies Capstone Seminar.

Minor in Counseling and Human Services

A minor in Counseling and Human Services requires CHS 111, 112, 241, 242, 341 and one CHS elective course.

Course Descriptions

CHS 111 3 cr.
(S) Introduction to Human Adjustment
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 3 cr.
Human-Services Systems
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 service-learning component.

CHS 241 3 cr.
(D) Case Management and Interviewing
The role of the human-service 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 service-learning component.

CHS 242 3 cr.
Counseling Theories
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 3 cr.
Special Topics
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 3 cr.
(W) Research Methods in Counseling and Human Services
An introduction to research methodology as applied to problems in human-services agencies and settings. Specific topics include descriptive, experimental, and quasi-experimental research.
### Counseling and Human Services Curriculum

<table>
<thead>
<tr>
<th>Department and Number</th>
<th>Descriptive Title of Course</th>
<th>Fall Cr.</th>
<th>Spr. Cr.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>First Year</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAJOR CHS 111</td>
<td>Intro. to Human Adjustment</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MAJOR CHS 112</td>
<td>Human Service Systems</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>COGNATE(GE S/BH) PSYC 110</td>
<td>Fundamentals of Psychology</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE SPCH–WRTG COMM 100–WRTG 107</td>
<td>Public Speaking–Composition</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE C/JL C/JL 102</td>
<td>Computing and Information Literacy</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE PHIL-T/RS PHIL 120–T/RS 121</td>
<td>Intro. to Philosophy–Theology I</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE HUMN HUMN ELECT</td>
<td>Humanities Electives</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE FSEM INTD 100</td>
<td>Freshman Seminar¹</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>GE PHED PHED ELECT</td>
<td>Physical Education</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td><strong>Second Year</strong></td>
<td></td>
<td>16</td>
<td>16</td>
</tr>
<tr>
<td>MAJOR CHS 241</td>
<td>Case Management and Interviewing¹</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>MAJOR CHS 242</td>
<td>Counseling Theories</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>MAJOR CHS 293</td>
<td>Research Methods</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MAJOR CHS ELECT</td>
<td>Counseling and Human Services Elective</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>COGNATE(GE S/BH) PSYC 221</td>
<td>Childhood and Adolescence</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>COGNATE PSYC 222</td>
<td>Adulthood and Aging</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE QUAN PSYC 210 or EDUC 120</td>
<td>Statistics for the Behavioral Sciences</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE PHIL-T/RS PHIL 210–T/RS 122</td>
<td>Ethics–Theology II</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE NSCI NSCI ELECT</td>
<td>Natural Science Electives</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td><strong>Third Year</strong></td>
<td></td>
<td>15</td>
<td>18</td>
</tr>
<tr>
<td>MAJOR CHS 333</td>
<td>Multiculturalism in CHS¹</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MAJOR CHS 335</td>
<td>Administration in Human Services</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MAJOR CHS 340</td>
<td>Career Seminar</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>MAJOR CHS 341</td>
<td>Group Counseling¹</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>MAJOR CHS 380</td>
<td>Internship in CHS</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MAJOR CHS ELECT</td>
<td>Counseling and Human Services Elective</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>COGNATE S/BH ELECT</td>
<td>Social/Behavioral Science Electives</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE HUMN HUMN ELECT</td>
<td>Humanities Elective</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE PHIL-T/RS PHIL-T/RS ELECT</td>
<td>Philosophy or T/RS Elective</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE PHED PHED ELECT</td>
<td>Physical Education</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td><strong>Fourth Year</strong></td>
<td></td>
<td>17</td>
<td>16</td>
</tr>
<tr>
<td>MAJOR CHS 441</td>
<td>Crisis Intervention¹</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MAJOR CHS ELECT</td>
<td>Counseling and Human Services Elective</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>MAJOR CHS 481</td>
<td>Advanced Internship in CHS</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>COGNATE S/BH ELECT</td>
<td>Social/Behavioral Science Electives</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE ELECT FREE ELECT</td>
<td>Free Electives</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>GE HUMN HUMN ELECT</td>
<td>Humanities Elective</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td><strong>TOTAL: 131 CREDITS</strong></td>
<td></td>
<td>15</td>
<td>18</td>
</tr>
</tbody>
</table>

¹ Includes service-learning component.

### Counseling and Human Services Concentration in Rehabilitation Services Curriculum

<table>
<thead>
<tr>
<th>Department and Number</th>
<th>Descriptive Title of Course</th>
<th>Fall Cr.</th>
<th>Spr. Cr.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>First Year</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAJOR CHS 111</td>
<td>Intro. to Human Adjustment</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MAJOR CHS 112</td>
<td>Human Service Systems¹</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>COGNATE(GE S/BH) PSYC 110</td>
<td>Fundamentals of Psychology</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE SPCH–WRTG COMM 100–WRTG 107</td>
<td>Public Speaking–Composition</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE C/JL C/JL 102</td>
<td>Computing and Information Literacy</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE PHIL-T/RS PHIL 120–T/RS 121</td>
<td>Intro. to Philosophy–Theology I</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE HUMN HUMN ELECT</td>
<td>Humanities Electives</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE FSEM INTD 100</td>
<td>Freshman Seminar¹</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>GE PHED PHED ELECT</td>
<td>Physical Education</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td><strong>Second Year</strong></td>
<td></td>
<td>16</td>
<td>16</td>
</tr>
<tr>
<td>MAJOR CHS 241</td>
<td>Case Management and Interviewing¹</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>MAJOR CHS 242</td>
<td>Counseling Theories</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>MAJOR CHS 293</td>
<td>Research Methods</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MAJOR CHS ELECT</td>
<td>Counseling and Human Services Elective</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>COGNATE(GE S/BH) PSYC 221</td>
<td>Childhood and Adolescence</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>COGNATE PSYC 222</td>
<td>Adulthood and Aging</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE QUAN PSYC 210 or EDUC 120</td>
<td>Statistics for the Behavioral Sciences</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE PHIL-T/RS PHIL 210–T/RS 122</td>
<td>Ethics–Theology II</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE HUMN HUMN ELECT</td>
<td>Humanities Elective</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE NSCI NSCI ELECT</td>
<td>Natural Science Electives</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td><strong>Third Year</strong></td>
<td></td>
<td>15</td>
<td>18</td>
</tr>
<tr>
<td>MAJOR CHS 333</td>
<td>Multiculturalism in CHS¹</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MAJOR CHS 335</td>
<td>Administration in Human Services</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MAJOR CHS 340</td>
<td>Career Seminar</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>MAJOR CHS 341</td>
<td>Group Counseling¹</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>MAJOR CHS 380</td>
<td>Internship in CHS</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MAJOR CHS ELECT</td>
<td>Counseling and Human Services Elective</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>COGNATE S/BH ELECT</td>
<td>Social/Behavioral Science Electives</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE HUMN HUMN ELECT</td>
<td>Humanities Elective</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE PHIL-T/RS PHIL-T/RS ELECT</td>
<td>Philosophy or T/RS Elective</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE ELECT FREE ELECT</td>
<td>Free Electives</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE PHED PHED ELECT</td>
<td>Physical Education</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td><strong>Fourth Year</strong></td>
<td></td>
<td>17</td>
<td>16</td>
</tr>
<tr>
<td>MAJOR CHS 441</td>
<td>Crisis Intervention¹</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MAJOR CHS ELECT</td>
<td>Counseling and Human Services Elective</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>MAJOR CHS 481</td>
<td>Advanced Internship in CHS</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>COGNATE S/BH ELECT</td>
<td>Social/Behavioral Science Electives</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE ELECT FREE ELECT</td>
<td>Free Electives</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>GE HUMN HUMN ELECT</td>
<td>Humanities Elective</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL: 131 CREDITS</strong></td>
<td></td>
<td>15</td>
<td>18</td>
</tr>
</tbody>
</table>

¹ Includes service-learning component.
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.
An examination of the problems associated with mental and emotional disturbances. 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 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 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 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 service-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. (Also listed as HD 234.)

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-service settings, consultation, supervision, planning, funding and training.

CHS 337 (W, 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 an 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 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 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 service-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 will occur of the variety of rehabilitation programs. 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 provided.

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 ADA 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 380 Internship in Counseling and Human Services (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 addiction 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 Legal and Health Aspects of 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 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 service-learning component.

CHS 480 Internship in Rehabilitation Services
3 cr.
(Prerequisite: CHS 340) 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 or 480) This advanced internship in Counseling and Human Services involves 200 hours in a community agency or organization. This course is required.

CHS 491 Pastoral Studies Capstone Seminar
3 cr.
(Prerequisites: 9 CHS cr., 9 T/RS cr. and T/RS 338Z; co-requisite: Pastoral Studies internship) Exploration of the history, development and theology of Christian pastoral ministry, methods of theological reflection and pastoral assessment, and formation of pastoral caregivers' professional identity. Readings from pastoral theology texts, presentations by practitioners, case presentations by students. (Also listed as T/RS 491.)
EDUCATION

Faculty
Barbara Cozza, Ph.D., Chair
Bonnie Alco, M.Ed.
Donna Bauman, Ph.D.
Joseph M. Cannon, M.Ed.
Arthur Chambers, M.Ed.
Darryl De Marzio, Ph.D.
Joseph A. Fusaro, Ed.D.
Patricia Gross, Ed.D.
Tata J. Mbugua, Ph.D.
Kathleen K. Montgomery, Ph.D.
Kathleen B. Wasserman, Ph.D.
Vanessa Silla-Zaleski, Ed.D.
Derry L. Stuitt, Ed.D.
Kathleen B. Wasserman, Ph.D.
Gloria T. Wenze, Ph.D.
David A. Wiley, Ed.D.

Overview
The Education Department endeavors to contribute to the improvement of education by preparing informed, inquiring, and skilled professionals who, as scholars and decision makers, are prepared for positions in the education community. More specifically, the department aims to provide persons with a breadth and depth of knowledge and understanding in their specialized areas of professional practice and to provide training to ensure competence in the specific area of functioning. To this end, individual program competencies have been developed. Additionally, the department endeavors to offer opportunities for continued professional growth to practising educators, to assist in the education growth and development of the community served by the University, and to foster the advancement of knowledge through research in education.

The Education Department offers degrees in Early Childhood with Special Education, Elementary with Special Education, Elementary with Early Childhood Education, and Secondary Education, each leading to state certification.

Secondary Education concentrations include:
- Biology
- Chemistry
- Citizenship
- Communication
- English
- French
- General Science
- German
- Latin
- Mathematics
- Physics
- Spanish

Presently, Elementary Education leads to state certification (K-6), and Early Childhood Education leads to state certification (pre-K–3). However, the Pennsylvania Department of Education is in the process of revising their standards to better meet the mandates of No Child Left Behind and the Gaskins case decided in Federal Court. Therefore, grade levels covered by particular areas may be changing. The University of Scranton is working with the State to ensure that our programs meet the needs of our students and the employment needs of the states from which they are coming.

The department’s programs are accredited by the Pennsylvania Department of Education. The University’s Professional Education Unit is also accredited by the National Council for Accreditation of Teacher Education (NCATE). Accreditation and interstate agreements between Pennsylvania and selected states assure that courses taken will be considered for certification in most states. Praxis Series I & II tests are required for Pennsylvania Teacher Certification. Additionally, in order to enter Pennsylvania or any other state, all candidates must have state police clearances, child abuse clearances and a record of FBI fingerprint clearances on file with the Education Department. Students should consult departmental and student handbooks for detailed information on graduation and certification requirements.

Students are accepted to the University as Education majors but prior to officially declaring a major must have completed the following courses:
- EDUC 130 Introduction to Education
- EDUC 141 History and Philosophy
- WRTG 107 Composition

**Prerequisite:** Any student who has already had the equivalent of EDUC 130 (Introduction to Education) and/or EDUC 141 (History and Philosophy) and/or WRTG 107 (Composition) taken at another institution must present an academic transcript to the Education Department prior to being placed at any field experience site that would put them in direct contact with children, including the Reading Clinic in the Education Department. The Education Department requires this clearance on behalf of the school entity where the field experience will occur. Copies of completed clearances should be submitted with field experience application forms required by the Director of Field Placement. In no case will a student be provided with placement information previous to the instructor’s acknowledgement of current clearances.

Students are encouraged to maintain artifacts of their professional experiences as they progress through their teacher training. Upon determination of their professional experiences, students must provide documentation of the coursework and experiences. A Personal Professional Experience Statement (PRES) is required for any student seeking certification.

**Prerequisites:**
- Any student who has already had the equivalent of EDUC 130 (Introduction to Education) and/or EDUC 141 (History and Philosophy) and/or WRTG 107 (Composition) taken at another institution must present an academic transcript to the Education Department prior to being placed at any field experience site that would put them in direct contact with children, including the Reading Clinic in the Education Department. The Education Department requires this clearance on behalf of the school entity where the field experience will occur. Copies of completed clearances should be submitted with field experience application forms required by the Director of Field Placement. In no case will a student be provided with placement information previous to the instructor’s acknowledgement of current clearances.

Students are encouraged to maintain artifacts of their professional experiences as they progress through their teacher training. Upon completion of the student teaching experience, students are required to submit an e-portfolio that documents these professional experiences.

The following outline presents the criteria for admission into candidacy for certification after the student has completed at least 48 semester hours.

**Education Certification Candidacy Track – Admission to Teacher Education Programs**

1. Verification of at least 48 semester hours that include the required 6 semester hours of mathematics and the required 6 semester hours of English.
2. Verification of a 3.0 GPA or higher in all three areas mentioned earlier in this catalog.
3. Official state police clearances, child abuse clearances and a record of FBI fingerprint clearances.
4. Completion of the following courses, with a minimum grade of C in teaching area and major courses:
   - EDUC 141 History and Philosophy of Education
   - EDUC 222 Educational Psychology
   - WRTG 107 Composition
- Three semester credit hours of mathematics that must include one of the following:
  - MATH 204 Special Topics of Statistics
  - PSYC 210 Statistics in the Behavioral Sciences
  - EDUC 120 Applied Statistics
  - PS 240 Political Science Statistics
  - SJC 215 Statistics for the Social Sciences
- Three semester credit hours of mathematics that must include one of the following:
  - MATH 102 Fundamentals of Numerical Mathematics
  - MATH 201 Algebra and Environmental Issues
- 5. Passing scores on the Praxis Series I examinations.
- 6. Completed recommendations from faculty in the following courses:
   - EDUC 141 History and Philosophy of Education
   - EDUC 222 Educational Psychology

* Requirements may differ for students pursuing certification in mathematics or the sciences.
Freshman and sophomore 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. All the courses mentioned above will be a part of the new programs.

Federal regulations in the Higher Education Act of 1998 require that departments of teacher education report their students’ performance on the Praxis Series examinations. An analysis of the results from the most recent academic year is available from the chair of the Education Department.

Important Note: Due to Pennsylvania Department of Education mandates, changes in teacher education programs may require changes to curricular requirements for all of the education programs.

Course Descriptions

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 approval of the advisor, the appropriate program director, the department chairperson, and the dean. Student teaching requires application, which must be submitted to the appropriate advisor and approved by the program director, prior to registration for the student teaching semester. Completed Act 34 forms, Child Abuse History Clearance forms and FBI fingerprint clearances are required prior to receiving a field assignment. Students must comply with field and student teaching application deadlines.

EDUC 113 3 cr.
Reading: Research
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 3 cr.
(Q,W) Applied Statistics
(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 131 3 cr.
(D) Experiencing Cultural Diversity through Children’s Literature
A course designed to introduce students to the diversity of cultures represented in children’s literature as a way to identify and differentiate the variety of cultures that they may encounter as teachers.

EDUC 141 3 cr.
History and Philosophy of Education
This course is designed to examine the historical and philosophical roots of the education enterprise. Emphasis is on an examination of the historical, social, and philosophical characteristics of the public school system in the United States, the role of education in contemporary society, and current issues related to education.

EDUC 142 3 cr.
Exceptional Lives
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 222 3 cr.
(W) Educational Psychology
This course examines the psychological basis of teaching strategies, classroom environment, learning, motivation, reinforcement, and evaluation.

EDUC 225 3 cr.
Planning for Differentiated Instruction
(Prerequisite: EDUC 142; pre- or co-requisite: EDUC 222) This course prepares pre-service teachers for using research-based tools and strategies to plan for differentiated instruction which ensures learning for all students. Attention will be paid to both short and long term planning using strategies and assessments aligned with Pennsylvania Department of Education and national standards.

EDUC 226 3 cr.
Secondary, Transitional and Vocational Services
The role of the special-education teacher in designing and implementing transitional and vocational services for the disabled student.

Emphasis is placed upon the role of the special-education professional as an advocate for the disabled in accessing school, community, state, and federal resources.

EDUC 241 3 cr.
Foundations of Reading Instruction
This basic course in reading provides an introduction to reading instruction, reading programs, and the reading process as it relates to language acquisition and learning to read. The readiness, reading skills, techniques and methods essential for effective reading will be examined. Completed Act 34 and Child Abuse clearance required. Includes service-learning component.

EDUC 244 3 cr.
Planning Effective Elementary Instruction
(Prerequisite: EDUC 222) This course prepares the elementary major with the research-based tools and strategies required to prepare lesson and long-term planning, consistent with best practice, for exemplary instruction in the classroom. Particular attention will be paid to alignment of objectives and assessment consistent with the Pennsylvania Academic Standards.

EDUC 245 3 cr.
Interdisciplinary Assessment
(Prerequisite: EDUC 142) This course focuses on strategies, methods, and instruments for assessing the early learner, elementary student, and special education student. Theory to best practice linkages will be stressed for all three student populations.

EDUC 250 3 cr.
Early Development and Intervention
This course focuses on the early childhood typical and atypical development (ages birth to 8); cognitive, motor, social-emotional, self-help, and language. Students will be introduced to the field of early childhood special education and how to design interventions for children who are demonstrating a developmental delay. Students will have the opportunity to work in a transdisciplinary team. Theory to practice linkages will be stressed. There is a laboratory/field component to this course.

EDUC 256 3 cr.
Family and Community Relations
This course prepares the early childhood teacher with the strategies and communication skills necessary to build positive relationships with colleagues within the school and agencies in the larger communities that can contribute to the well-being of each student in order to realize the full developmental potential of each child. An observation component is part of the course expectation.

EDUC 259 3 cr.
Early Development and Intervention
(Prerequisites: EDUC 225 and EDUC 241) This course focuses on the early childhood typical and atypical development (ages birth to 8); cognitive, motor, social-emotional, self-help, and language. Students will be introduced to the field of early childhood special education and how to design interventions for children who are demonstrating a developmental delay. Students will have the opportunity to work in a transdisciplinary team. Theory to practice linkages will be stressed. There is a laboratory/field component to this course.

EDUC 267 3 cr.
Learning Disabilities
This course provides an introduction to learning disabilities. Definitions, current theories, etiological bases, and educational management of students with learning disabilities and/or hyperactivity and attention deficit will be emphasized.

EDUC 280 1 cr.
Field Experience II
(Prerequisites: EDUC 121 and 180; pre- or co-requisite: EDUC 222) The course is closely associated with EDUC 222. Projects will be assigned to be carried out in basic education schools and other agencies through observation, assisted instruction and oral/written reports. Application to field director, state police clearances, child abuse clearances and a record of FBI fingerprint clearances are required.

EDUC 310 1-3 cr.
Special Topics in Education
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 312  3 cr.
The Secondary School Mathematics Curriculum
(Prerequisite: EDUC 313) 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  3 cr.
General Methods and Planning
(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  3 cr.
Specific Subject Methods
(Prerequisite: EDUC 313) Utilizing knowledge of planning and teaching, students are guided in the analysis of specific content and techniques for teaching that content. They will demonstrate their ability to carry out plans in "micro" teaching experiences. Includes service-learning component.

EDUC 340  3 cr.
Reading in the Secondary School
This course is the study of the reading process with emphasis placed on understanding and skills needed by secondary school students in their subject fields.

EDUC 341  3 cr.
The Education of the Exceptional Child
A general view of the field; historical background — both philosophical and legislative. A survey of physical, mental, and emotional handicaps and of giftedness, along with remedial and preventive practices with a look at the future.

EDUC 342  3 cr.
Educational Media and Technology
A course in which students are expected to produce media appropriate for classroom use. The student is also expected to exhibit competency in the use of common education media equipment and the uses of computers. Students will also be introduced to modern and future forms of media technology appropriate for the classroom teacher.

EDUC 348  4 cr.
Integrated Methods: Elementary Math/Science
(Prerequisite: EDUC 244) This course is designed to provide the elementary education major with planning and instructional strategies necessary for exemplary science and mathematics instruction in both distinct and integrated methods of delivery. An analysis of similarities and differences in content and standards within these disciplines will guide the study. Includes service-learning component.

EDUC 349  4 cr.
Integrated Methods: Elementary Language Arts/Social Studies
(Prerequisite: EDUC 244) This course is designed to provide the elementary education major with planning and instructional strategies necessary for exemplary language arts and social studies instruction in the classroom. Attention will be paid to those strategies that might be used for integrated instruction as well as instruction of each area as separate and distinct disciplines.

EDUC 350  3 cr.
Designing Curriculum for Special Needs
This course provides prospective teachers with instructional plans, strategies and adaptations that promote educational success for exceptional learners. Emphasis is on design and implementation of "best-practice" instruction for children with high/low incidence disabilities in the context of current professional standards and national mandates.

EDUC 354  4 cr.
Integrated Methods: Early Childhood Education Math/Science/Health
(Prerequisite: EDUC 251; pre- or co-requisites: EDUC 252 and 256) This course provides instructional strategies necessary for instructional sequences which integrate science, health and mathematics content and experiences for young learners.

EDUC 356  4 cr.
Integrated Methods: Early Childhood Education Social Studies/Language/Expressive Arts
(Prerequisite: EDUC 251; pre- or co-requisites: EDUC 252 and 256) This course provides instructional strategies necessary for instructional sequences which integrate language arts, expressive arts and social studies content and experiences for young learners. Includes service-learning component.

EDUC 357  3 cr.
Integrated Early Childhood Education Methods (0-5 y.o.)
(Prerequisite: EDUC 251, 348, 349; pre- or co-requisites: EDUC 252 and 256) This course is designed to explore methods for creating a preschool environment that invites young children to discover learning through a differentiated, creative and integrated curriculum. An observation component is part of the course expectation.

EDUC 358  3 cr.
Reading to Learn with Tradebooks and Texts
An advanced course in reading. It provides additional instruction in working with older students who have not fully developed reading fundamentals. Independent reading, literature study, comprehension, word analysis, learning with textbooks and the reading/writing connection are all studied in depth.

EDUC 359  3 cr.
Introduction to English Language Learning
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
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 364  3 cr.
(D) Inclusionary Classroom Practices
Emphasis is placed on studying teaching techniques and involvement in teacher activities in basic-education schools. Application to field director, state police, FBI fingerprint clearances are required.

EDUC 380  3 cr.
Professional Practice Seminar
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 366  3 cr.
Emotional/Behavioral Disabilities
A study of the problems associated with emotional and behavioral disabilities in the classroom. Emphasis is placed on behavior management and appropriate learning strategies for inclusionary general-education classes, self-contained special-education classes, and residential placements.

EDUC 367  3 cr.
Designing Curriculum for Low Incidence Disabilities
Emphasis is on the effective design and use of curriculum and materials to educate elementary students with special needs.

EDUC 368  3 cr.
Designing Curriculum for High Incidence Disabilities
Emphasis is on the effective design and use of curriculum and materials to educate secondary students with special needs.

EDUC 369  3 cr.
Early Assessment and Intervention
This course focuses on the development of the early learner, birth through age eight, along with appropriate assessment and intervention techniques for children falling under the IDEA.

EDUC 440  1 cr.
Field Experience III
(Prerequisites: EDUC 244 and 280; pre- or co-requisite: EDUC 313) This course is closely associated with the methods courses. An emphasis is placed on studying teaching techniques and involvement in teacher activities in basic-education schools. Application to field director, state police, FBI fingerprint clearances, school abuse, and records of FBI fingerprint clearances are required.

EDUC 440  3 cr.
Professional Practice Seminar
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 441* 1 cr.
Planning in Elementary Student Teaching
Preparation of actual teaching plans during elementary student teaching. Application to field director required.

EDUC 442 1.5 cr.
Instruction in Elementary Student Teaching
Involvement in implementing methods and techniques. Elementary-school student teaching on a full-time basis under the supervision of classroom teachers and University supervisors.

EDUC 443 1 cr.
Managing Elementary Classrooms in Student Teaching
Involvement in the management of learning situations during elementary student teaching.

EDUC 444 1.5 cr.
Professional Growth in Elementary Student Teaching
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 at and participation in a weekly seminar to analyze and discuss professional considerations and student-teaching problems. Includes service-learning component.

EDUC 457 1.5 cr.
Instruction in Early Childhood Student Teaching
Involvement in implementing methods and techniques. Early childhood student teaching on a full-time basis under the supervision of classroom teachers and University supervisors.

EDUC 458 1 cr.
Managing Classrooms in Early Childhood Student Teaching
Involvement in the management of learning situations during early childhood student teaching.

EDUC 459 1.5 cr.
Professional Growth in Early Childhood Student Teaching
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 service-learning component.

EDUC 460, 462, 463 and 464 must be scheduled during the same semester. Collectively, they comprise a semester of student teaching.

EDUC 461 1 cr.
Planning in Early Childhood Student Teaching
Preparation of actual teaching plans during early childhood student teaching. Application to field director required.

EDUC 462 1.5 cr.
Instruction in Special Education Student Teaching
Involvement in implementing methods and techniques. Special-education student teaching on a full-time basis under the supervision of classroom teachers and University supervisors.

EDUC 463 1 cr.
Managing Special Education Classrooms in Student Teaching
Involvement in the management of learning situations during special-education student teaching.

EDUC 464 1.5 cr.
Professional Growth in Special Education Student Teaching
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 at and participation in a weekly seminar to analyze and discuss professional considerations and student-teaching problems. Includes service-learning component.

EDUC 475, 476, 477, 478 and 479 must be scheduled during the same semester. Collectively, they comprise a semester of student teaching.

EDUC 475 3 cr.
Secondary Classroom Management and Discipline
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 476* 2 cr.
Planning in Secondary Student Teaching
Preparation of actual teaching plans during secondary student teaching. Application to field director required.

EDUC 477 3 cr.
Instruction in Secondary Student Teaching
Involvement in implementing methods and techniques. Secondary student teaching on a full-time basis under the supervision of classroom teachers and University supervisors.

EDUC 478 2 cr.
Managing Classrooms in Secondary Student Teaching
Involvement in the management of learning situations during secondary student teaching.

EDUC 479 3 cr.
Professional Growth in Secondary Student Teaching
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 service-learning component.

*Student teaching requires an application due March 1 or October 1 for fall and spring placements, respectively. Current state police clearances, child abuse clearances and a record of FBI fingerprint clearances are required.
Early Childhood Education/Special Education Curriculum

<table>
<thead>
<tr>
<th>Department and Number</th>
<th>Descriptive Title of Course</th>
<th>Fall Cr.</th>
<th>Spr. Cr.</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAJOR EDUC 141</td>
<td>History and Philosophy of Education</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MAJOR EDUC 142</td>
<td>Exceptional Lives</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>MAJOR MATH 102</td>
<td>Fundamentals of Numerical Math</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE NSCI MATH 204/EDUC 120/PYS 210</td>
<td>Statistics</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE WRTG–SPCH WRTG 107–COMM 100</td>
<td>Composition–Public Speaking</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE S/BH PHSY 110</td>
<td>Fundamentals of Psychology</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE T/RS T/RS 121</td>
<td>Theology I</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE HUMN HIST 110 or 111</td>
<td>History of the United States</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MAJOR EDUC 267</td>
<td>Learning Disabilities</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE PHIL–T/RS T/RS 122–PHIL 110</td>
<td>Theology II–Intro. to Philosophy</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE NSCI PHYS 101 or 102</td>
<td>Physical Science</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MAJOR EDUC 348L or 349L</td>
<td>Natural Science Elect</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MAJOR EDUC 354</td>
<td>Designing Curric. for Low Incld. Disabilities</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MAJOR EDUC 356</td>
<td>Family and Community Relations</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MAJOR EDUC 358</td>
<td>Interdisciplinary Assessment</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MAJOR EDUC 359</td>
<td>Early Development and Intervention</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>MAJOR EDUC 367</td>
<td>Designing Curriculum for Special Needs</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MAJOR EDUC 368</td>
<td>Integ. Methods: ECE Math/Science/Health</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>MAJOR EDUC 369</td>
<td>Integ. Methods: ECE SS/Lang./Express. Arts</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>MAJOR EDUC 370</td>
<td>Reading to Learn with Tradebooks &amp; Texts</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MAJOR EDUC 371</td>
<td>Emotional and Behavior Disabilities</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MAJOR EDUC 372</td>
<td>Designing Curric. for Low Incld. Disabilities</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MAJOR EDUC 373</td>
<td>Reading to Learn with Tradebooks &amp; Texts</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MAJOR EDUC 374</td>
<td>State or National Political Science</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MAJOR EDUC 375</td>
<td>Intro. to English Language Learning</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MAJOR ECO 401</td>
<td>Economics for Educators</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE HUMN HUMN ELECT1</td>
<td>Humanities Elective (Literature or Arts)</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE HUMN HUMN ELECT</td>
<td>Humanities Elective</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE PHIL PHIL ELECT</td>
<td>Philosophy Elective</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MAJOR EDUC 440</td>
<td>Professional Practice Seminar</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MAJOR EDUC 441</td>
<td>Planning in EC Student Tchg</td>
<td>1.5</td>
<td></td>
</tr>
<tr>
<td>MAJOR EDUC 442</td>
<td>Instruction in EC Student Tchg</td>
<td>1.5</td>
<td></td>
</tr>
<tr>
<td>MAJOR EDUC 443</td>
<td>Managing EC Classrooms in Student Tchg</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>MAJOR EDUC 444</td>
<td>Professional Growth in EC Student Tchg</td>
<td>1.5</td>
<td></td>
</tr>
<tr>
<td>MAJOR EDUC 445</td>
<td>Planning in SpEd Student Tchg</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>MAJOR EDUC 446</td>
<td>Instruction in SpEd Student Teaching</td>
<td>1.5</td>
<td></td>
</tr>
<tr>
<td>MAJOR EDUC 447</td>
<td>Managing SpEd Classrooms in Student Tchg</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>MAJOR EDUC 448</td>
<td>Prof. Growth in Sp. Ed. Student Tchg</td>
<td>1.5</td>
<td></td>
</tr>
</tbody>
</table>

TOTAL: 132 CREDITS

Elementary Education/Early Childhood Education Curriculum

<table>
<thead>
<tr>
<th>Department and Number</th>
<th>Descriptive Title of Course</th>
<th>Fall Cr.</th>
<th>Spr. Cr.</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAJOR EDUC 141</td>
<td>History and Philosophy of Education</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MAJOR EDUC 142</td>
<td>Exceptional Lives</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MAJOR MATH 102</td>
<td>Fundamentals of Numerical Math</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE NSCI MATH 204/EDUC 120/PYS 210</td>
<td>Statistics</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE WRTG–SPCH WRTG 107–COMM 100</td>
<td>Composition–Public Speaking</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE S/BH PHSY 110</td>
<td>Fundamentals of Psychology</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE T/RS T/RS 121</td>
<td>Theology I</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE HUMN HIST 110 or 111</td>
<td>History of the United States</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MAJOR EDUC 267</td>
<td>Learning Disabilities</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE PHIL–T/RS T/RS 122–PHIL 110</td>
<td>Theology II–Intro. to Philosophy</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE NSCI PHYS 101 or 102</td>
<td>Physical Science</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MAJOR EDUC 348L or 349L</td>
<td>Natural Science Elect</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MAJOR EDUC 354</td>
<td>Designing Curric. for Special Needs</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MAJOR EDUC 355</td>
<td>Integ. Methods: ECE Math/Science/Health</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>MAJOR EDUC 356</td>
<td>Integ. Methods: ECE SS/Lang./Express. Arts</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>MAJOR EDUC 357</td>
<td>Reading to Learn with Tradebooks &amp; Texts</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MAJOR EDUC 358</td>
<td>Emotional and Behavior Disabilities</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MAJOR EDUC 359</td>
<td>Designing Curric. for Low Incld. Disabilities</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MAJOR EDUC 360</td>
<td>Reading to Learn with Tradebooks &amp; Texts</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MAJOR S/BH PS 130 or 131 or 135</td>
<td>State or National Political Science</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MAJOR EDUC 361</td>
<td>Early Development and Intervention</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>MAJOR EDUC 362</td>
<td>Media and Technology</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MAJOR EDUC 363</td>
<td>Designing Curriculum for Special Needs</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MAJOR EDUC 364</td>
<td>Integ. Methods: ECE Math/Science/Health</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>MAJOR EDUC 365</td>
<td>Integ. Methods: ECE SS/Lang./Express. Arts</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>MAJOR EDUC 366</td>
<td>Reading to Learn with Tradebooks &amp; Texts</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MAJOR EDUC 367</td>
<td>Emotional and Behavior Disabilities</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MAJOR EDUC 368</td>
<td>Designing Curric. for Low Incld. Disabilities</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MAJOR EDUC 369</td>
<td>Reading to Learn with Tradebooks &amp; Texts</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MAJOR S/BH PS 130 or 131 or 135</td>
<td>State or National Political Science</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MAJOR EDUC 370</td>
<td>Intro. to English Language Learning</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MAJOR ECO 401</td>
<td>Economics for Educators</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MAJOR EDUC 385</td>
<td>Integ. Methods: Elem. Lang./Arts/SS</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>MAJOR EDUC 386</td>
<td>Designing Curric. for Special Needs</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MAJOR EDUC 387</td>
<td>Integ. Methods: ECE Math/Science/Health</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>MAJOR EDUC 388</td>
<td>Integ. Methods: ECE SS/Lang./Express. Arts</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>MAJOR EDUC 389</td>
<td>Reading to Learn with Tradebooks &amp; Texts</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MAJOR PHIL PHIL ELECT</td>
<td>Philosophy Elective</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MAJOR EDUC 440</td>
<td>Professional Practice Seminar</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MAJOR EDUC 441</td>
<td>Planning in Elem Student Tchg</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>MAJOR EDUC 442</td>
<td>Instruction in Elem Student Tchg</td>
<td>1.5</td>
<td></td>
</tr>
<tr>
<td>MAJOR EDUC 443</td>
<td>Managing Elem Classrooms in Student Tchg</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>MAJOR EDUC 444</td>
<td>Prof. Growth in Elem Student Tchg</td>
<td>1.5</td>
<td></td>
</tr>
<tr>
<td>MAJOR EDUC 445</td>
<td>Planning in EC Student Tchg</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>MAJOR EDUC 446</td>
<td>Instruction in EC Student Tchg</td>
<td>1.5</td>
<td></td>
</tr>
<tr>
<td>MAJOR EDUC 447</td>
<td>Managing EC Classrooms in Student Tchg</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>MAJOR EDUC 448</td>
<td>Prof. Growth in EC Student Tchg</td>
<td>1.5</td>
<td></td>
</tr>
<tr>
<td>MAJOR EDUC 449</td>
<td>Planning in SpEd Student Tchg</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>MAJOR EDUC 450</td>
<td>Instruction in SpEd Student Tchg</td>
<td>1.5</td>
<td></td>
</tr>
<tr>
<td>MAJOR EDUC 451</td>
<td>Managing SpEd Classrooms in Student Tchg</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>MAJOR EDUC 452</td>
<td>Prof. Growth in Sp. Ed. Student Tchg</td>
<td>1.5</td>
<td></td>
</tr>
</tbody>
</table>

TOTAL: 131 CREDITS

1 Select one of the following: NSCI 201, BIOL 100, BIOL101, BIOL 108, CHEM 104, PHYS 105, PHYS 106.
2 Select one of the following: ARTH 111, ARTH 112, MUS 111, MUS 112, THTR 110.
## Elementary Education/Special Education Curriculum

<table>
<thead>
<tr>
<th>First Year</th>
<th>Department and Number</th>
<th>Descriptive Title of Course</th>
<th>Fall Cr.</th>
<th>Spr. Cr.</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAJOR</td>
<td>EDUC 141</td>
<td>History and Philosophy of Education</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MAJOR</td>
<td>EDUC 142</td>
<td>Exceptional Lives</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MAJOR</td>
<td>MATH 102</td>
<td>Fundamentals of Numerical Math</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE QUAN</td>
<td>MATH 204/EDUC 120/PSYC 210</td>
<td>Statistics</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE WRTG–SCH</td>
<td>WRTG 167–COMM 100</td>
<td>Composition—Public Speaking</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE S/BH</td>
<td>PSYC 110</td>
<td>Fundamentals of Psychology</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE T/RS</td>
<td>T/RS 121</td>
<td>Theology I</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE HUMN</td>
<td>HIST 110 or 111</td>
<td>History of the United States</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE HUMN</td>
<td>ENLT ELECT</td>
<td>Literature Elective (100 level)</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE FSEM</td>
<td>INTD 100</td>
<td>Freshman Seminar</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>GE PHED</td>
<td>PHED 135 and 119 or 126</td>
<td>Dance or Wellness</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>GE C/JL</td>
<td>C/JL 102/102L</td>
<td>Computer Literacy</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Second Year</th>
<th>Department and Number</th>
<th>Descriptive Title of Course</th>
<th>Fall Cr.</th>
<th>Spr. Cr.</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAJOR</td>
<td>EDUC 222</td>
<td>Educational Psychology</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MAJOR</td>
<td>EDUC 225</td>
<td>Planning for Differentiated Instruction</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>MAJOR</td>
<td>EDUC 225L</td>
<td>Field</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>MAJOR</td>
<td>EDUC 241</td>
<td>Foundations of Reading</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MAJOR</td>
<td>EDUC 245</td>
<td>Interdisciplinary Assessment</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MAJOR</td>
<td>EDUC 267</td>
<td>Learning Disabilities</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE PHIL–T/RS</td>
<td>T/RS 122–PHIL 110</td>
<td>Theology II—Intro. to Philosophy</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE NSCI</td>
<td>PHYS 101 or 102</td>
<td>Physical Science</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE NSCI</td>
<td>NSCI ELECT</td>
<td>Natural Science Elective</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE S/BH</td>
<td>PSY 130 or 131 or 135</td>
<td>State or National Political Science</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE PHED</td>
<td>PHED 135 and 119 or 126</td>
<td>Dance or Wellness</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Third Year</th>
<th>Department and Number</th>
<th>Descriptive Title of Course</th>
<th>Fall Cr.</th>
<th>Spr. Cr.</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAJOR</td>
<td>EDUC 342</td>
<td>Media and Technology</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MAJOR</td>
<td>EDUC 348</td>
<td>Integ. Methods Elem. Math/Science</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>MAJOR</td>
<td>EDUC 349</td>
<td>Integ. Methods Elem Lang. Arts/SS</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>MAJOR</td>
<td>EDUC 348L or 349L</td>
<td>Field</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>MAJOR</td>
<td>EDUC 350</td>
<td>Designing Curriculum for Special Needs</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MAJOR</td>
<td>EDUC 358</td>
<td>Reading to Learn with Textbooks &amp; Texts</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MAJOR</td>
<td>EDUC 359</td>
<td>Intro. to English Language Learning</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MAJOR</td>
<td>EDUC 366</td>
<td>Emotional and Behavior Disabilities</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MAJOR</td>
<td>EDUC 367</td>
<td>Designing Curric. for Low Incid. Disabilities</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MAJOR</td>
<td>EDUC 367L</td>
<td>Field</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>GE PHIL</td>
<td>PHIL 210</td>
<td>Ethics</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE ELECT</td>
<td>FREE ELECT</td>
<td>Free Elective</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Fourth Year</th>
<th>Department and Number</th>
<th>Descriptive Title of Course</th>
<th>Fall Cr.</th>
<th>Spr. Cr.</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAJOR</td>
<td>ECO 410</td>
<td>Economics for Educators</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE HUMN</td>
<td>HUMN ELECT</td>
<td>Humanities Elective (Literature or Arts)</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE HUMN</td>
<td>HUMN ELECT</td>
<td>Humanities Elective</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE PHIL</td>
<td>PHIL ELECT</td>
<td>Philosophy Elective</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE ELECT</td>
<td>FREE ELECT</td>
<td>Free Elective</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE PHED</td>
<td>PHED ELECT</td>
<td>Physical Education</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>MAJOR</td>
<td>EDUC 440</td>
<td>Professional Practice Seminar</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MAJOR</td>
<td>EDUC 441</td>
<td>Planning in Elem Student Tchg</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>MAJOR</td>
<td>EDUC 442</td>
<td>Instruction in Elem Student Tchg</td>
<td>1.5</td>
<td></td>
</tr>
<tr>
<td>MAJOR</td>
<td>EDUC 443</td>
<td>Managing Elem Classrooms in Student Tchg</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>MAJOR</td>
<td>EDUC 444</td>
<td>Prof. Growth in Elem Student Tchg</td>
<td>1.5</td>
<td></td>
</tr>
<tr>
<td>MAJOR</td>
<td>EDUC 461</td>
<td>Planning in SpEd Student Tchg</td>
<td>1.5</td>
<td></td>
</tr>
<tr>
<td>MAJOR</td>
<td>EDUC 462</td>
<td>Instruction in SpEd Student Tchg</td>
<td>1.5</td>
<td></td>
</tr>
<tr>
<td>MAJOR</td>
<td>EDUC 463</td>
<td>Managing SpEd Classrooms in Student Tchg</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>MAJOR</td>
<td>EDUC 464</td>
<td>Prof. Growth in Sp. Ed. Student Tchg</td>
<td>1.5</td>
<td></td>
</tr>
</tbody>
</table>

| Total: 131 CREDITS | |

---

## Secondary Education (Biology) Curriculum

(Pending promulgation of final regulations from Pennsylvania Department of Education and approval of the Faculty Senate Curriculum Committee)

<table>
<thead>
<tr>
<th>First Year</th>
<th>Department and Number</th>
<th>Descriptive Title of Course</th>
<th>Fall Cr.</th>
<th>Spr. Cr.</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAJOR</td>
<td>EDUC 141</td>
<td>History &amp; Philosophy of Education w/field</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>COGNATE</td>
<td>BIOL 141–142</td>
<td>General Biology I-II</td>
<td>4.5</td>
<td>4.5</td>
</tr>
<tr>
<td>COGNATE</td>
<td>CHEM 112–113</td>
<td>General Chemistry I-II</td>
<td>4.5</td>
<td>4.5</td>
</tr>
<tr>
<td>GE SPCH–WRTG</td>
<td>COMM 100–WRTG 107</td>
<td>Public Speaking—Composition</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE C/JL</td>
<td>C/JL 102</td>
<td>Computing and Information Literacy</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE PHIL</td>
<td>PHIL 120</td>
<td>Introduction to Philosophy</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE FSEM</td>
<td>INTD 100</td>
<td>Freshman Seminar¹</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Second Year</th>
<th>Department and Number</th>
<th>Descriptive Title of Course</th>
<th>Fall Cr.</th>
<th>Spr. Cr.</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAJOR</td>
<td>EDUC 280</td>
<td>Field Experience II</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>COGNATE</td>
<td>CHEM 232–233</td>
<td>Organic Chemistry</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>MAJOR</td>
<td>EDUC 349</td>
<td>Plant Physiology</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE QUAN</td>
<td>MATH 114</td>
<td>Analysis I</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>GE NSCI</td>
<td>PHYS 102</td>
<td>Earth Science</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE HUMN</td>
<td>LIT ELECT/ELECT</td>
<td>Literature/Humanities Electives</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE S/BH</td>
<td>PSYC 110</td>
<td>Fundamentals of Psychology</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE S/BH</td>
<td>EDUC 222</td>
<td>Educational Psychology</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE ELECT</td>
<td>STAT ELECT</td>
<td>Statistics Elective</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE PHED</td>
<td>PHED ELECT</td>
<td>Physical Education</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>GE T/RS</td>
<td>T/RS 121</td>
<td>Theology I</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Third Year</th>
<th>Department and Number</th>
<th>Descriptive Title of Course</th>
<th>Fall Cr.</th>
<th>Spr. Cr.</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAJOR</td>
<td>EDUC 313</td>
<td>General Methods &amp; Planning</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MAJOR</td>
<td>EDUC 314</td>
<td>Specific Subject Methods¹</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MAJOR</td>
<td>EDUC 340</td>
<td>Reading in Secondary Schools</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MAJOR</td>
<td>EDUC 380</td>
<td>Field Experience III</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>COGNATE</td>
<td>BIOL 250/250L</td>
<td>Microbiology</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>COGNATE</td>
<td>BIOL 370/370L</td>
<td>Animal Behavior</td>
<td>4.5</td>
<td></td>
</tr>
<tr>
<td>COGNATE</td>
<td>BIOL 375</td>
<td>Evolution</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>COGNATE</td>
<td>BIOL 361</td>
<td>Molecular Bio</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>GE T/RS</td>
<td>T/RS 122</td>
<td>Theology II</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE HUMN</td>
<td>HUMN ELECT</td>
<td>Humanities Elective</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE ELECT</td>
<td>BIOL 273/473</td>
<td>Marine or Estuarine Ecology</td>
<td>3</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Fourth Year¹</th>
<th>Department and Number</th>
<th>Descriptive Title of Course</th>
<th>Fall Cr.</th>
<th>Spr. Cr.</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAJOR</td>
<td>EDUC 475</td>
<td>Secondary Classroom Mgmt. &amp; Disc.</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MAJOR</td>
<td>EDUC 476</td>
<td>Planning in Secondary Student Teaching</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>MAJOR</td>
<td>EDUC 477</td>
<td>Instruction in Secondary Student Teaching</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>MAJOR</td>
<td>EDUC 478</td>
<td>Managing Chms. in Sec. Stud. Teaching</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>MAJOR</td>
<td>EDUC 479</td>
<td>Prof. Growth in Sec. Student Teaching¹</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE HUMN</td>
<td>HUMN ELECT</td>
<td>Humanities Elective</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>COGNATE</td>
<td>BIOL 371</td>
<td>Ecology</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE PHIL</td>
<td>PHIL 210</td>
<td>Ethics</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE NSCI</td>
<td>PHYS 120/120L</td>
<td>General Physics</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>GE PHIL</td>
<td>PHIL 306</td>
<td>Philosophy of Education</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE PHED</td>
<td>PHED ELECT</td>
<td>Physical Education</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

| Total: 137.5 CREDITS | |

¹ Include service-learning component. Freshman Seminar service commitment is 20 hours, with no service requirement in sophomore year.

² For a second major in Biology, an additional 6.5 credits in Biology, CHEM 232L and 233L, PHYS 121 and 121L, and 4 elective credits in Chemistry, Math or Physics are required.

³ Semesters may be reversed at the discretion of the department.
### Secondary Education (Chemistry) Curriculum

(Pending promulgation of final regulations from Pennsylvania Department of Education and approval of the Faculty Senate Curriculum Committee)

<table>
<thead>
<tr>
<th>Department and Number</th>
<th>Descriptive Title of Course</th>
<th>Fall Cr.</th>
<th>Spr. Cr.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>First Year</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAJOR EDUC 141</td>
<td>History &amp; Philosophy of Education w/field</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE NSCI</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GE SPCH–WRTG COMMITTEE</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GE T/RS</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GE HUMN</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GE ELECT</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GE FSEM</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>18.5</td>
<td>17.5</td>
</tr>
<tr>
<td><strong>Second Year</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAJOR EDUC 280</td>
<td>Field Experience II</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>COGNATE CHEM 232–233</td>
<td>Organic Chemistry I–II</td>
<td>4.5</td>
<td>4.5</td>
</tr>
<tr>
<td>COGNATE PHYS 140–141</td>
<td>General Physics I–II</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>COGNATE CHEM 240</td>
<td>Inorganic Chemistry</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE PHIL PHIL 120</td>
<td>Introduction to Philosophy</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE T/RS T/RS 121–122</td>
<td>Theology I–II</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE S/BH EDUC 222</td>
<td>Educational Psychology</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE ELECT MATH II</td>
<td>Analysis III</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>18.5</td>
<td>18.5</td>
</tr>
<tr>
<td><strong>Third Year</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAJOR EDUC 313</td>
<td>General Methods &amp; Planning</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MAJOR EDUC 314</td>
<td>Specific Subject Methods</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MAJOR EDUC 340</td>
<td>Reading in Secondary Schools</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MAJOR EDUC 360</td>
<td>Field Experience III</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>COGNATE CHEM 362–363</td>
<td>Physical Chemistry I–II</td>
<td>4.5</td>
<td>4.5</td>
</tr>
<tr>
<td>COGNATE CHEM 344</td>
<td>Environmental GeoChem</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>COGNATE BIOL 141</td>
<td>General Biology</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>COGNATE CHEM 370</td>
<td>Instrumental Analysis</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>GE HUMN</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GE HUMN ELECT</td>
<td>Humanities Elective</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE PHIL PHIL 210</td>
<td>Ethics</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE PHED PHED ELECT</td>
<td>Physical Education</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>18.5</td>
<td>18.5</td>
</tr>
<tr>
<td><strong>Fourth Year</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAJOR EDUC 475</td>
<td>Secondary Classroom Mgmt. &amp; Disc.</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MAJOR EDUC 476</td>
<td>Planning in Secondary Student Teaching</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>MAJOR EDUC 477</td>
<td>Instruction in Secondary Student Teaching</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MAJOR EDUC 478</td>
<td>Managing Clerical. in Sec. Stud. Teaching</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MAJOR EDUC 479</td>
<td>Prof. Growth in Sec. Student Teaching</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>COGNATE CHEM 440</td>
<td>Advanced Inorganic</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>COGNATE CHEM 350</td>
<td>General Biochemistry I</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE PHIL PHIL 301</td>
<td>Philosophy of Education</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE HUMN HUMN ELECT</td>
<td>Humanities Electives</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>GE ELECT CHEM 493–494</td>
<td>Undergraduate Research</td>
<td>1.5</td>
<td>1.5</td>
</tr>
<tr>
<td>GE PHED PHED ELECT</td>
<td>Physical Education</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>18.5</td>
<td>14.5</td>
</tr>
</tbody>
</table>

TOTAL: 143 CREDITS

1. Includes service-learning component. Freshman Seminar service commitment is 20 hours, with no service requirement in sophomore year.

2. For a second major in Chemistry, the following are required: CHEM 330, 390, 391, 440L, 493 and 494.

3. Semesters may be reversed at the discretion of the department.

### Secondary Education (Citizenship with History) Curriculum

(Pending promulgation of final regulations from Pennsylvania Department of Education and approval of the Faculty Senate Curriculum Committee)

<table>
<thead>
<tr>
<th>Department and Number</th>
<th>Descriptive Title of Course</th>
<th>Fall Cr.</th>
<th>Spr. Cr.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>First Year</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAJOR EDUC 141</td>
<td>History &amp; Philosophy of Education w/field</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>COGNATE HIST 110–111</td>
<td>U.S. History I–II</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE WRTG–SPCH WRTG 107</td>
<td>Public Speaking–Composition</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE C/JIL</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GE QUAN–STAT</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GE T/RS T/RS 121–122</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GE S/BH PSYC 110</td>
<td>Fundamentals of Psychology</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE FSEM INTD 100</td>
<td>Freshman Seminar</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>GE NSCI NSCI ELECT</td>
<td>Natural Science Elective</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE PHED PHED ELECT</td>
<td>Physical Education</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>17</td>
<td>18</td>
</tr>
<tr>
<td><strong>Second Year</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAJOR–GE–S/BH EDUC 222–280</td>
<td>Educational Psych.–Field Exp. II</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>COGNATE GEOG 134</td>
<td>World Regional Geography</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>COGNATE HIST 140</td>
<td>Craft of the Historian</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE HUMN LIT ELECT</td>
<td>Literature Elective</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE PHIL PHIL 120</td>
<td>Introduction to Philosophy</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE HUMN HIST 120–121</td>
<td>European History I–II</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE NSCI NSCI ELECT</td>
<td>Natural Science Elective</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE ELECT PS 135</td>
<td>State and Local Government</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE PHED PHED ELECT</td>
<td>Physical Education</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>18</td>
<td>17</td>
</tr>
<tr>
<td><strong>Third Year</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAJOR EDUC 315</td>
<td>General Methods &amp; Planning</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MAJOR EDUC 340</td>
<td>Reading in Secondary Schools</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MAJOR EDUC 340</td>
<td>Reading in Secondary Schools</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MAJOR EDUC 380–314</td>
<td>Field Exp. III–Specific Subj. Methods</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>MAJOR EDUC 340</td>
<td>Reading in Secondary Schools</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>COGNATE HIST 219</td>
<td>Modern World History</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>COGNATE HIST 214</td>
<td>World Politics</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>COGNATE HIST ELECT</td>
<td>History Elective</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>COGNATE HIST ELECT</td>
<td>Minority History</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE PHIL PHIL 106</td>
<td>Philosophy of Education</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE T/RS T/RS 122</td>
<td>Theology II</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE ELECT PS 212</td>
<td>International Relations</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE PHED PHED ELECT</td>
<td>Physical Education</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>18</td>
<td>18</td>
</tr>
<tr>
<td><strong>Fourth Year</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAJOR EDUC 475</td>
<td>Secondary Classroom Mgmt. &amp; Disc.</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MAJOR EDUC 476</td>
<td>Planning in Secondary Student Teaching</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>MAJOR EDUC 477</td>
<td>Instruction in Secondary Student Teaching</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MAJOR EDUC 478</td>
<td>Managing Clerical. in Sec. Stud. Teaching</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MAJOR EDUC 479</td>
<td>Prof. Growth in Sec. Student Teaching</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>COGNATE CHEM 440</td>
<td>Advanced Inorganic</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>COGNATE CHEM 350</td>
<td>General Biochemistry I</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE PHIL PHIL 301</td>
<td>Philosophy of Education</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE HUMN HUMN ELECT</td>
<td>Humanities Elective</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>GE ELECT CHEM 493–494</td>
<td>Undergraduate Research</td>
<td>1.5</td>
<td>1.5</td>
</tr>
<tr>
<td>GE PHED PHED ELECT</td>
<td>Physical Education</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>18.5</td>
<td>14.5</td>
</tr>
</tbody>
</table>

TOTAL: 136 CREDITS

1. Includes service-learning component. Freshman Seminar service commitment is 20 hours, with no service requirement in sophomore year.

2. Humanities Electives: Students must earn 6 credits in Literature, History or Foreign Language with no more than 3 credits in Art or Music.

3. Students may substitute a 300- or 400-level course with permission of the History Department Chair.

4. Semesters may be reversed at the discretion of the department.
## Secondary Education (Citizenship with Political Science) Curriculum
(Pending promulgation of final regulations from Pennsylvania Department of Education and approval of the Faculty Senate Curriculum Committee)

### First Year

<table>
<thead>
<tr>
<th>Department and Number</th>
<th>Descriptive Title of Course</th>
<th>Fall Cr.</th>
<th>Spr. Cr.</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAJOR EDUC 141</td>
<td>History &amp; Philosophy of Education w/field</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>COGNATE GEOG 134</td>
<td>World Regional Geography</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>COGNATE PS ELECT</td>
<td>Political Science Elective</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE HUMN LIT ELECT</td>
<td>Literature Elective</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE PHIL PHIL 120</td>
<td>Introduction to Philosophy</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE HUMN HIST 120–121</td>
<td>European History I–II</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE NSCI NSCI ELECT</td>
<td>Natural Science Elective</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE ELECT PS 135</td>
<td>State and Local Government</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE PHED PHED ELECT</td>
<td>Physical Education</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

### Second Year

<table>
<thead>
<tr>
<th>Department and Number</th>
<th>Descriptive Title of Course</th>
<th>Fall Cr.</th>
<th>Spr. Cr.</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAJOR/GE S/BH EDUC 222–280</td>
<td>Educational Psych.–Field Exp. II</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>COGNATE GEOG 134</td>
<td>World Regional Geography</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>COGNATE PS ELECT</td>
<td>Political Science Elective</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE HUMN LIT ELECT</td>
<td>Literature Elective</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE PHIL PHIL 120</td>
<td>Introduction to Philosophy</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE HUMN HIST 120–121</td>
<td>European History I–II</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE NSCI NSCI ELECT</td>
<td>Natural Science Elective</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE ELECT PS 135</td>
<td>State and Local Government</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE PHED PHED ELECT</td>
<td>Physical Education</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

### Third Year

<table>
<thead>
<tr>
<th>Department and Number</th>
<th>Descriptive Title of Course</th>
<th>Fall Cr.</th>
<th>Spr. Cr.</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAJOR EDUC 313</td>
<td>General Methods &amp; Planning</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MAJOR EDUC 380–314</td>
<td>Field III–Specific Subj. Methods¹</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>MAJOR EDUC 340</td>
<td>Reading in Secondary Schools</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>COGNATE PS 313 OR 314</td>
<td>Political Ideas</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>COGNATE PS 217</td>
<td>Comparative Politics</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>COGNATE PS ELECT</td>
<td>PS Electives</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>GE PHIL PHIL 305</td>
<td>Philosophy of Education</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE T/RS T/RS 122</td>
<td>Theology II</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE ELECT PS 212</td>
<td>International Relations</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE PHED PHED ELECT</td>
<td>Physical Education</td>
<td>2</td>
<td></td>
</tr>
</tbody>
</table>

### Fourth Year

<table>
<thead>
<tr>
<th>Department and Number</th>
<th>Descriptive Title of Course</th>
<th>Fall Cr.</th>
<th>Spr. Cr.</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAJOR EDUC 475</td>
<td>Secondary Classroom Mgmt. &amp; Disc.</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MAJOR EDUC 476</td>
<td>Planning in Secondary Student Teaching</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>MAJOR EDUC 477</td>
<td>Instruction in Secondary Student Teaching</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>MAJOR EDUC 478</td>
<td>Managing Clmrns. in Sec. Stud. Teaching</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>MAJOR EDUC 479</td>
<td>Prof. Growth in Sec. Student Teaching¹</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>COGNATE PS ELECT</td>
<td>PS Electives</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>GE PHIL PHIL 210</td>
<td>Ethics</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE HUMN HUMN ELECT</td>
<td>Humanities Elective²</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE ELECT ECO 410</td>
<td>Economics for Education Majors</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE PHED PHED ELECT</td>
<td>Physical Education</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

**Total: 133 Credits**

¹ Includes service-learning component. Freshman Seminar service commitment is 20 hours, with no service requirement in sophomore year.
² Humanities Electives: Students must earn 6 credits in Literature, History or Foreign Language with no more than 3 credits in Art or Music.
³ Semesters may be reversed at the discretion of the department.

## Secondary Education (Communication) Curriculum²
(Pending promulgation of final regulations from Pennsylvania Department of Education and approval of the Faculty Senate Curriculum Committee)

### First Year

<table>
<thead>
<tr>
<th>Department and Number</th>
<th>Descriptive Title of Course</th>
<th>Fall Cr.</th>
<th>Spr. Cr.</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAJOR EDUC 141</td>
<td>History &amp; Philosophy of Education w/field</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>COGNATE COMM 110 or 130</td>
<td>Interpers. Comm./Hist. of Electronic Media</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>COGNATE COMM 115</td>
<td>Writing for Communication</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE SPCH WRTG WRTG 100</td>
<td>Public Speaking–Composition</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE C/J C/J 102</td>
<td>Computing and Information Literacy</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE QUAN ELECT</td>
<td>Quant. Reasoning Elective</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE PHIL-T/RS PHIL 120</td>
<td>Intro. to Philosophy–Theology I</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE ELECT ENLT 140</td>
<td>English Inquiry</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE S/BH PSYC 110</td>
<td>Fundamentals of Psychology</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE FSEM INTD 100</td>
<td>Freshman Seminar¹</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>GE PHED PHED ELECT</td>
<td>Physical Education</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

### Second Year

<table>
<thead>
<tr>
<th>Department and Number</th>
<th>Descriptive Title of Course</th>
<th>Fall Cr.</th>
<th>Spr. Cr.</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAJOR EDUC 222–280</td>
<td>Educational Psychology–Field II</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>COGNATE COMM ELECT</td>
<td>Communication Electives³</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>COGNATE ENLT ELECT</td>
<td>British Literature Elective</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE T/RS T/RS 122</td>
<td>Theology II</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE HUMN ENLT ELECT</td>
<td>American Literature Elective</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE HUMN WRTG 210</td>
<td>Advanced Composition</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE NSCI PSYC 105</td>
<td>Brain &amp; Human Nature</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE QUAN STAT ELECT</td>
<td>Statistics Electives</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE ELECT COM 210</td>
<td>Logical &amp; Rhetorical Analysis</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE HUMN COMM 215</td>
<td>Intro. to Communication Theory</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE PHED PHED ELECT</td>
<td>Physical Education</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

### Third Year

<table>
<thead>
<tr>
<th>Department and Number</th>
<th>Descriptive Title of Course</th>
<th>Fall Cr.</th>
<th>Spr. Cr.</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAJOR EDUC 313–380</td>
<td>General Methods &amp; Planning–Field III</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>MAJOR EDUC 314</td>
<td>Specific Subject Methods³</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MAJOR EDUC 340</td>
<td>Reading in Secondary Schools</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MAJOR EDUC 362</td>
<td>Psycholinguistics</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>COGNATE COMM 316</td>
<td>Communication Ethics</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>COGNATE COMM ELECT</td>
<td>Communication Electives³</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>MAJOR EDUC 341</td>
<td>Education of the Exceptional Child</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE ELECT ENLT ELECT</td>
<td>Theatre Elective</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE NSCI NSCI ELECT</td>
<td>Natural Science Elective</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE PHED PHED ELECT</td>
<td>Physical Education</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

### Fourth Year³

<table>
<thead>
<tr>
<th>Department and Number</th>
<th>Descriptive Title of Course</th>
<th>Fall Cr.</th>
<th>Spr. Cr.</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAJOR EDUC 475</td>
<td>Secondary Classroom Mgmt. &amp; Disc.</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MAJOR EDUC 476</td>
<td>Planning in Secondary Student Teaching</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>MAJOR EDUC 477</td>
<td>Instruction in Secondary Student Teaching</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>MAJOR EDUC 478</td>
<td>Managing Clmrns. in Sec. Stud. Teaching</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>MAJOR EDUC 479</td>
<td>Prof. Growth in Sec. Student Teaching³</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>COGNATE PS ELECT</td>
<td>PS Electives</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>GE PHIL PHIL 210</td>
<td>Ethics</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE HUMN HUMN ELECT</td>
<td>Humanities Elective²</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE ELECT ECO 410</td>
<td>Economics for Education Majors</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE PHED PHED ELECT</td>
<td>Physical Education</td>
<td>1</td>
<td></td>
</tr>
</tbody>
</table>

**Total: 136 Credits**

¹ Includes service-learning component. Freshman Seminar service commitment is 20 hours, with no service requirement in sophomore year.
² 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.
³ The following classes are recommended – but not required – as options for elective choices: COMM 211: Argument and Debate, COMM 214: Small-Group Communication, COMM 220: Interpersonal Communication, COMM 224: Newswriting.
⁴ Semesters may be reversed at the discretion of the department.
Secondary Education (English) Curriculum
(Pending promulgation of final regulations from Pennsylvania Department of Education and approval of the Faculty Senate Curriculum Committee)

<table>
<thead>
<tr>
<th>First Year</th>
<th>Department and Number</th>
<th>Descriptive Title of Course</th>
<th>Fall Cr.</th>
<th>Spr. Cr.</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAJOR</td>
<td>EDUC 141</td>
<td>History &amp; Philosophy of Education w/field</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>COGNATE</td>
<td>ENLT 140</td>
<td>English Inquiry</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>COGNATE</td>
<td>ENLT ELECT</td>
<td>Literature Area Requirement</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE WRTG-COGNATE WRTG 107-ELECT</td>
<td>Composition–Theatre Elective</td>
<td>3</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE C/IL</td>
<td>C/IL 102</td>
<td>Computing and Information Literacy</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE QUAN</td>
<td>QUAN ELECT</td>
<td>Quantitative Reasoning Elective</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE PHIL-T/RS</td>
<td>PHIL 120-T/RS 121</td>
<td>Intro. to Philosophy–Theology I</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE S/BH</td>
<td>PSYC 110</td>
<td>Fundamentals of Psychology</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE FSEM</td>
<td>INTD 100</td>
<td>Freshman Seminar(^1)</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>GE PHED</td>
<td>PHED ELECT</td>
<td>Physical Education</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>16</td>
<td>16</td>
</tr>
<tr>
<td>Second Year</td>
<td>MAJOR</td>
<td>EDUC 222-280</td>
<td>3 1</td>
<td></td>
</tr>
<tr>
<td>COGNATE</td>
<td>ENLT ELECT</td>
<td>Educational Psychology–Field II</td>
<td>3 1</td>
<td></td>
</tr>
<tr>
<td>COGNATE</td>
<td>ENLT 220 or 341</td>
<td>Shakespeare Elective</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE SPCH</td>
<td>COMM 100</td>
<td>Public Speaking</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE PHIL</td>
<td>PHIL 210</td>
<td>Ethics</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE ELECT</td>
<td>WRTG 211 or 218</td>
<td>Advanced Writing Elective</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE HUMN</td>
<td>HUMN ELECT</td>
<td>Rep. World Literature</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE NSCI</td>
<td>NSCI ELECT</td>
<td>Natural Science Electives</td>
<td>3 3</td>
<td></td>
</tr>
<tr>
<td>GE PHED</td>
<td>PHED ELECT</td>
<td>Physical Education</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>GE ELECT</td>
<td>STAT ELECT</td>
<td>Statistics Elective</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>18 17</td>
<td></td>
</tr>
<tr>
<td>Third Year</td>
<td>MAJOR</td>
<td>EDUC 313</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MAJOR</td>
<td>EDUC 314</td>
<td>General Methods &amp; Planning</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MAJOR</td>
<td>EDUC 340</td>
<td>Reading in Secondary Schools</td>
<td>3 3</td>
<td></td>
</tr>
<tr>
<td>MAJOR</td>
<td>EDUC 380</td>
<td>Field Experience III</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>COGNATE</td>
<td>WRTG 310</td>
<td>Strategies for Teaching Writing</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MAJOR</td>
<td>EDUC 362</td>
<td>Psychology Linguistics</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>COGNATE</td>
<td>ENLT ELECT</td>
<td>Literature Area Requirements</td>
<td>3 3</td>
<td></td>
</tr>
<tr>
<td>GE T/RS</td>
<td>T/RS 122</td>
<td>Theology II</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE HUMN</td>
<td>HUMN ELECT</td>
<td>Literature Area Requirement</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE HUMN</td>
<td>HUMN ELECT</td>
<td>Ministry Literature Elective</td>
<td>3 3</td>
<td></td>
</tr>
<tr>
<td>GE PHED</td>
<td>PHED ELECT</td>
<td>Physical Education</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>GE ELECT</td>
<td>EDUC 341</td>
<td>Education of the Exceptional Child</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>17 18</td>
<td></td>
</tr>
<tr>
<td>Fourth Year(^3)</td>
<td>MAJOR</td>
<td>EDUC 475</td>
<td>Secondary Classroom Mgmt. &amp; Disc.</td>
<td>3</td>
</tr>
<tr>
<td>MAJOR</td>
<td>EDUC 476</td>
<td>Planning in Secondary Student Teaching</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>MAJOR</td>
<td>EDUC 477</td>
<td>Instruction in Secondary Student Teaching</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MAJOR</td>
<td>EDUC 478</td>
<td>Managing Clerks. in Sec. Stud. Teaching</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MAJOR</td>
<td>EDUC 479</td>
<td>Prof. Growth in Sec. Student Teaching(^3)</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>COGNATE</td>
<td>ENLT ELECT</td>
<td>Theory Intensive Elective(^3)</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>COGNATE</td>
<td>ENLT 490 or 491</td>
<td>Senior Seminar</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE PHIL</td>
<td>PHIL 306</td>
<td>Philosophy of Education</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE ELECT</td>
<td>FREE ELECT</td>
<td>Free Electives</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>13 15</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>TOTAL: 130 CREDITS</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\(^1\) Includes service-learning component. Freshman Seminar service commitment is 20 hours, with no service requirement in sophomore year.

\(^2\) Secondary Education/English majors will complete a second major in English. English majors at The University of Scranton are required to take at least four courses in British literature and at least two in American literature. These appear above as “Area Requirements”; for further details, students should see page 136 and/or consult their English Department advisors.

\(^3\) Students who have not already done so must complete the English Department’s Theory Intensive Requirement.

\(^4\) Semesters may be reversed at the discretion of the department.

---

Secondary Education (General Science) Curriculum
(Pending promulgation of final regulations from Pennsylvania Department of Education and approval of the Faculty Senate Curriculum Committee)

<table>
<thead>
<tr>
<th>First Year</th>
<th>Department and Number</th>
<th>Descriptive Title of Course</th>
<th>Fall Cr.</th>
<th>Spr. Cr.</th>
</tr>
</thead>
<tbody>
<tr>
<td>MAJOR</td>
<td>EDUC 141</td>
<td>History &amp; Philosophy of Education w/field</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>COGNATE</td>
<td>BIOE 141–42</td>
<td>General Biology I–II</td>
<td>4.5 4.5</td>
<td></td>
</tr>
<tr>
<td>GE SPCH</td>
<td>COMM 100</td>
<td>Public Speaking</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE WRTG</td>
<td>WRTG 107</td>
<td>Composition</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE C/IL</td>
<td>C/IL 102</td>
<td>Computing and Information Literacy</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE QUAN</td>
<td>MATH 103 or 114</td>
<td>Pre-Calculus Math OR Analysis I</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>GE PHIL-T/RS</td>
<td>PHIL 120-T/RS 121</td>
<td>Intro. to Philosophy–Theology I</td>
<td>3 3</td>
<td></td>
</tr>
<tr>
<td>GE HUMN</td>
<td>LIT ELECT</td>
<td>Literature Elective</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE FSEM</td>
<td>INTD 100</td>
<td>Freshman Seminar(^1)</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>17.5 17.5</td>
<td></td>
</tr>
<tr>
<td>Second Year</td>
<td>MAJOR</td>
<td>EDUC 280</td>
<td>Field Experience II</td>
<td>1</td>
</tr>
<tr>
<td>MAJOR</td>
<td>EDUC 340</td>
<td>Reading in Secondary Schools</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>COGNATE</td>
<td>COGNATE ELECT</td>
<td>Techno. Context–Environmental Context</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE ELECT</td>
<td>PHIL 431</td>
<td>Philosophy of Science</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE NSCI</td>
<td>PHYS 101–102</td>
<td>Modern Astronomy–Earth Science</td>
<td>3 3</td>
<td></td>
</tr>
<tr>
<td>GE HUMN</td>
<td>HUMN ELECT</td>
<td>Humanities Elective</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE ELECT</td>
<td>FREE ELECT</td>
<td>Free Elective</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE PHED</td>
<td>PHED ELECT</td>
<td>Physical Education</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>16 17</td>
<td></td>
</tr>
<tr>
<td>Third Year</td>
<td>MAJOR</td>
<td>EDUC 313</td>
<td>General Methods &amp; Planning</td>
<td>3</td>
</tr>
<tr>
<td>MAJOR</td>
<td>EDUC 380–314</td>
<td>Field III–Specific Subject Methods(^1)</td>
<td>1 3</td>
<td></td>
</tr>
<tr>
<td>MAJOR</td>
<td>EDUC 340</td>
<td>Reading in Secondary Schools</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>COGNATE</td>
<td>COGNATE ELECT</td>
<td>Techno. Context–Environmental Context</td>
<td>3 3</td>
<td></td>
</tr>
<tr>
<td>GE ELECT</td>
<td>PHIL 431</td>
<td>Philosophy of Science</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE NSCI</td>
<td>PHYS 101–102</td>
<td>Modern Astronomy–Earth Science</td>
<td>3 3</td>
<td></td>
</tr>
<tr>
<td>GE HUMN</td>
<td>HUMN ELECT</td>
<td>Humanities Elective</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE ELECT</td>
<td>FREE ELECT</td>
<td>Free Elective</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE PHED</td>
<td>PHED ELECT</td>
<td>Physical Education</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>16 17</td>
<td></td>
</tr>
<tr>
<td>Fourth Year(^2)</td>
<td>MAJOR</td>
<td>EDUC 475</td>
<td>Secondary Classroom Mgmt. &amp; Disc.</td>
<td>3</td>
</tr>
<tr>
<td>MAJOR</td>
<td>EDUC 476</td>
<td>Planning in Secondary Student Teaching</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>MAJOR</td>
<td>EDUC 477</td>
<td>Instruction in Secondary Student Teaching</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MAJOR</td>
<td>EDUC 478</td>
<td>Managing Clerks. in Sec. Stud. Teaching</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>MAJOR</td>
<td>EDUC 479</td>
<td>Prof. Growth in Sec. Student Teaching(^3)</td>
<td>3 3</td>
<td></td>
</tr>
<tr>
<td>COGNATE</td>
<td>COGNATE ELECT</td>
<td>Environmental Context</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>COGNATE</td>
<td>CHEM 104</td>
<td>Science and Society</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE HUMN</td>
<td>HUMN ELECT</td>
<td>Humanities Elective</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE ELECT</td>
<td>FREE ELECT</td>
<td>Free Electives</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>GE PHIL</td>
<td>PHIL 306</td>
<td>Philosophy of Education</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>18 13</td>
<td></td>
</tr>
</tbody>
</table>

\(^1\) Includes service-learning component. Freshman Seminar service commitment is 20 hours, with no service requirement in sophomore year.

\(^2\) Semesters may be reversed at the discretion of the department.

\(^3\) Students who have not already done so must complete the English Department's Theory Intensive Requirement.

---

TOTAL: 133 CREDITS
Secondary Education (Latin) Curriculum²
(Pending promulgation of final regulations from Pennsylvania Department of Education and approval of the Faculty Senate Curriculum Committee)

<table>
<thead>
<tr>
<th>Department and Number</th>
<th>Descriptive Title of Course</th>
<th>Fall Cr.</th>
<th>Spr. Cr.</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Year</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAJOR</td>
<td>EDUC 141</td>
<td>History &amp; Philosophy of Education w/field</td>
<td>3</td>
</tr>
<tr>
<td>COGNATE LAT 211–212</td>
<td>Intermediate Latin I-II</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE SPCH–WRTG COMM 100–WRTG 107</td>
<td>Public Speaking–Composition</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE C/IIL C/IIL 102</td>
<td>Computing and Information Literacy</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE QUAN MATH ELECT</td>
<td>Quant. Reasoning Course</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE PHIL–T/RS PHIL 120–T/RS 121</td>
<td>Intro. to Philosophy–Theology I</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE S/BH PSYC 110</td>
<td>Fundamentals of Psychology</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE FSEM–PHED INTD 100–PHED ELECT</td>
<td>Freshman Seminar–Physical Education</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Second Year</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAJOR</td>
<td>EDUC 280</td>
<td>Field Experience II</td>
<td>1</td>
</tr>
<tr>
<td>COGNATE COGNATE ELECT</td>
<td>Latin Electives</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>GE PHIL T/RS 122</td>
<td>Theology II</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE HUMN ENLT ELECT</td>
<td>Literature Elective</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE HUMN HUMN ELECT</td>
<td>Humanities Elective</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE NSCI NSCI ELECT</td>
<td>Natural Science Electives</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE S/BH EDUC 222</td>
<td>Educational Psychology</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE PHED PHED ELECT</td>
<td>Physical Education</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>GE ELECT STAT ELECT</td>
<td>Statistics Elective</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Third Year</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAJOR</td>
<td>EDUC 313</td>
<td>General Methods &amp; Planning</td>
<td>3</td>
</tr>
<tr>
<td>MAJOR</td>
<td>EDUC 380–314</td>
<td>Field III–Specific Subj. Methods¹</td>
<td>1</td>
</tr>
<tr>
<td>COGNATE COGNATE ELECT</td>
<td>Latin Electives</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>COGNATE COGNATE ELECT</td>
<td>Related Electives</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE PHIL PHIL 306</td>
<td>Philosophy of Education</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE ELECT SOC 234</td>
<td>Cultural Anthropology</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE ELECT FREE ELECT</td>
<td>Free Elective</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE PHED PHED ELECT</td>
<td>Physical Education</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Fourth Year³</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAJOR</td>
<td>EDUC 475</td>
<td>Secondary Classroom Mgmt. &amp; Disc.</td>
<td>3</td>
</tr>
<tr>
<td>MAJOR</td>
<td>EDUC 476</td>
<td>Planning in Secondary Student Teaching</td>
<td>3</td>
</tr>
<tr>
<td>MAJOR</td>
<td>EDUC 477</td>
<td>Instruction in Secondary Student Teaching</td>
<td>3</td>
</tr>
<tr>
<td>MAJOR</td>
<td>EDUC 478</td>
<td>Managing Clerms. in Sec. Stud. Teaching</td>
<td>2</td>
</tr>
<tr>
<td>MAJOR</td>
<td>EDUC 479</td>
<td>Prof. Growth in Sec. Student Teaching¹</td>
<td>3</td>
</tr>
<tr>
<td>COGNATE COGNATE ELECT</td>
<td>Latin Elective</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>COGNATE COGNATE ELECT</td>
<td>Related Elective</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE HUMN HUMN ELECT</td>
<td>Humanities Elective</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>GE PHIL PHIL 210</td>
<td>Ethics</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE HUMN HUMN ELECT</td>
<td>Latin Elective</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>TOTAL: 133 CREDITS</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

¹ Includes service-learning component. Freshman Seminar service commitment is 20 hours, with no service requirement in sophomore year.
² Program results in a second major in Latin.
³ Semesters may be reversed at the discretion of the department.

Secondary Education (Mathematics) Curriculum
(Pending promulgation of final regulations from Pennsylvania Department of Education and approval of the Faculty Senate Curriculum Committee)

<table>
<thead>
<tr>
<th>Department and Number</th>
<th>Descriptive Title of Course</th>
<th>Fall Cr.</th>
<th>Spr. Cr.</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Year</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAJOR</td>
<td>EDUC 141</td>
<td>History &amp; Philosophy of Education w/field</td>
<td>3</td>
</tr>
<tr>
<td>GE HUMN HUMN ELECT</td>
<td>Humanities Elective</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>COGNATE MATH 114</td>
<td>Analysis I</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>COGNATE MATH 142</td>
<td>Discrete Structures</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>GE SPCH–WRTG COMM 100–WRTG 107</td>
<td>Public Speaking–Composition</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE C/IIL C/IIL 102</td>
<td>Computing and Information Literacy</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE PHIL–T/RS PHIL 120–T/RS 121</td>
<td>Intro. to Philosophy–Theology I</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE ELECT CMPS 134</td>
<td>Computer Science I</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE PHIL–T/RS PHIL 120–T/RS 121</td>
<td>Intro. to Philosophy–Theology I</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE FSEM–PHED INTD 100–PHED ELECT</td>
<td>Freshman Seminar–Physical Education</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Second Year</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAJOR</td>
<td>EDUC 280</td>
<td>Field Experience II</td>
<td>1</td>
</tr>
<tr>
<td>GE SB/H EDUC 222</td>
<td>Educational Psychology</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>COGNATE MATH 222–222</td>
<td>Analysis II–III</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>GE T/RS T/RS 122</td>
<td>Theology II</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE HUMN LIT ELECT</td>
<td>Literature Elective</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE NSCI PHYS 140–141</td>
<td>Elem. of Physics I-II</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE SB/H PSYC 110</td>
<td>Fundamentals of Psychology</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>COGNATE MATH 351</td>
<td>Linear Algebra</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE PHED PHED ELECT</td>
<td>Physical Education</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Third Year</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAJOR</td>
<td>EDUC 313</td>
<td>General Methods &amp; Planning</td>
<td>3</td>
</tr>
<tr>
<td>MAJOR</td>
<td>EDUC 380–314</td>
<td>Field Exp. III–Specific Subject Methods¹</td>
<td>1</td>
</tr>
<tr>
<td>MAJOR</td>
<td>EDUC 540</td>
<td>Reading in Secondary Schools</td>
<td>3</td>
</tr>
<tr>
<td>MAJOR</td>
<td>EDUC 512</td>
<td>Secondary Math Curriculum</td>
<td>3</td>
</tr>
<tr>
<td>COGNATE MATH 312</td>
<td>Probability Theory</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>COGNATE MATH 345 OR MATH 325</td>
<td>Geometry OR History/Phil. of Mathematics</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>COGNATE MATH 446 OR MATH 448¹</td>
<td>Real Analysis I OR Mod. Algebra I</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>MAJOR</td>
<td>EDUC 312</td>
<td>Math Elective (Upper Division)</td>
<td>3</td>
</tr>
<tr>
<td>GE HUMN HUMN ELECT</td>
<td>Humanities Elective</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>COGNATE MATH 447 OR 449</td>
<td>Real Analysis II OR Modern Algebra II</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>COGNATE MATH ELECT</td>
<td>Math Elective (Upper Division)</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Fourth Year³</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAJOR</td>
<td>EDUC 475</td>
<td>Secondary Classroom Mgmt. &amp; Disc.</td>
<td>3</td>
</tr>
<tr>
<td>MAJOR</td>
<td>EDUC 476</td>
<td>Planning in Secondary Student Teaching</td>
<td>3</td>
</tr>
<tr>
<td>MAJOR</td>
<td>EDUC 477</td>
<td>Instruction in Secondary Student Teaching</td>
<td>3</td>
</tr>
<tr>
<td>MAJOR</td>
<td>EDUC 478</td>
<td>Managing Clerms. in Sec. Stud. Teaching</td>
<td>2</td>
</tr>
<tr>
<td>MAJOR</td>
<td>EDUC 479</td>
<td>Prof. Growth in Sec. Student Teaching¹</td>
<td>3</td>
</tr>
<tr>
<td>GE PHIL PHIL 210</td>
<td>Ethics</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>COGNATE MATH 446 or 448</td>
<td>Real Analysis I OR Mod. Alg. I¹</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>COGNATE MATH ELECT</td>
<td>Math Elective (Upper Division)</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>COGNATE MATH 345 OR MATH 325</td>
<td>Geometry OR History/Phil. of Mathematics</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE PHIL PHIL 306</td>
<td>Philosophy of Education</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE HUMN HUMN ELECT</td>
<td>Humanities Elective</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>TOTAL: 133 CREDITS</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

¹ Includes service-learning component. Freshman Seminar service commitment is 20 hours, with no service requirement in sophomore year.
² 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.
³ Semesters may be reversed at the discretion of the department.
Secondary Education (Modern Language) Curriculum
(Pending promulgation of final regulations from Pennsylvania Department of Education and approval of the Faculty Senate Curriculum Committee)

<table>
<thead>
<tr>
<th>Department and Number</th>
<th>Descriptive Title of Course</th>
<th>Fall Cr.</th>
<th>Spr. Cr.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>First Year</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAJOR</td>
<td>EDUC 141 History &amp; Philosophy of Education w/field</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>COGNATE</td>
<td>MLANG 311–312 Advanced Comp./Conv. I–II</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE PHIL</td>
<td>T/R/S 122 Theology I</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE NSCI</td>
<td>NSCI ELECT Natural Science Elective</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE S/BH</td>
<td>EDUC 222 Educational Psychology</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE PHIL</td>
<td>PHIL 210 Ethics</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE ELECT</td>
<td>STAT ELECT Statistics Elective</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE PHED</td>
<td>PHED ELECT Physical Education</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>18</td>
<td>17</td>
</tr>
<tr>
<td><strong>Second Year</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAJOR</td>
<td>EDUC 280 Field Experience II</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>COGNATE</td>
<td>MLANG 311–312 Advanced Comp./Conv. I–II</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE PHIL</td>
<td>T/R/S 122 Theology I</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE NSCI</td>
<td>NSCI ELECT Natural Science Elective</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE S/BH</td>
<td>EDUC 222 Educational Psychology</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE PHIL</td>
<td>PHIL 210 Ethics</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE ELECT</td>
<td>STAT ELECT Statistics Elective</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE PHED</td>
<td>PHED ELECT Physical Education</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>18</td>
<td>17</td>
</tr>
<tr>
<td><strong>Third Year</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAJOR</td>
<td>EDUC 313 General Methods &amp; Planning</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MAJOR</td>
<td>EDUC 314 Specific Subject Methods</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>MAJOR</td>
<td>EDUC 380 Field Experience III</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>MAJOR</td>
<td>EDUC 340 Reading in Secondary Schools</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>COGNATE</td>
<td>MLANG 321–322 Stylistics I–II</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>COGNATE</td>
<td>COGNATE ELECT Modern Language Elective</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>GE ELECT</td>
<td>FREE ELECT Free Elective</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE ELECT</td>
<td>SOC 234 Cultural Anthropology</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE PHED</td>
<td>PHED ELECT Physical Education</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>18</td>
<td>18</td>
</tr>
<tr>
<td><strong>Fourth Year</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAJOR</td>
<td>EDUC 475 Secondary Classroom Mgmt. &amp; Disc.</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MAJOR</td>
<td>EDUC 476 Planning in Secondary Student Teaching</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>MAJOR</td>
<td>EDUC 477 Instruction in Secondary Student Teaching</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MAJOR</td>
<td>EDUC 478 Managing Clerms. in Sec. Stud. Teaching</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>MAJOR</td>
<td>EDUC 479 Prof. Growth in Sec. Student Teaching</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>COGNATE</td>
<td>COGNATE ELECT Modern Language Elective</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>GE PHIL</td>
<td>PHIL 306 Philosophy of Education</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE PHIL</td>
<td>PHIL 210 Ethics</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE ELECT</td>
<td>ELECT Related Elective</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>18</td>
<td>15</td>
</tr>
<tr>
<td><strong>TOTAL: 136 CREDITS</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1 Includes service-learning component. Freshman Seminar service commitment is 20 hours, with no service requirement in sophomore year.
2 Spanish, French or German should be selected as a specialization within Modern Language (MLANG). Program results in a second major in the area of the modern language chosen.
3 All Secondary Education MLANG Majors are strongly encouraged to study abroad for a period of at least one semester.
4 Before enrolling in EDUC 314, students are required to pass a proficiency exam at the intermediate-high level.
5 Students whose specialization within Modern Languages 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 Students who begin language study at the advanced level (311) will take 6 credits in advanced MLANG electives.
7 Students studying abroad should take EDUC 340 during Intersession.
8 Students studying abroad should take EDUC 340 during Intersession.

Secondary Education (Physics) Curriculum
(Pending promulgation of final regulations from Pennsylvania Department of Education and approval of the Faculty Senate Curriculum Committee)

<table>
<thead>
<tr>
<th>Department and Number</th>
<th>Descriptive Title of Course</th>
<th>Fall Cr.</th>
<th>Spr. Cr.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>First Year</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAJOR</td>
<td>EDUC 141 History &amp; Philosophy of Education w/field</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>COGNATE</td>
<td>PHYS 140–141 Elements of Physics I–II</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>COGNATE</td>
<td>MATH 221 Analysis II</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>GE SPCH–WRTG</td>
<td>COMM 100–WRTTG Public Speaking–Composition</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE C/IL</td>
<td>C/IL 102 Computing and Information Literacy</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE HUMN</td>
<td>ENLT ELECT Literature Elective</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE QUAN</td>
<td>QUAN ELECT Quant. Reasoning Elective</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE T/R/S–PHIL</td>
<td>PHIL 120 Intro. to Philosophy/–Theology I</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE S/BH</td>
<td>PSYC 110 Fundamentals of Psychology</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE FSEM</td>
<td>INTD 100 Freshman Seminar1</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>16</td>
<td>18</td>
</tr>
<tr>
<td><strong>Second Year</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAJOR</td>
<td>EDUC 280 Field Experience II</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>COGNATE</td>
<td>MATH 222 Analysis III</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>COGNATE</td>
<td>PHYS 270 Modern Physics</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>COGNATE</td>
<td>PHYS 102 Earth Science</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>COGNATE</td>
<td>PHYS 352 Stat. &amp; Eng. Thermodynamics</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>COGNATE</td>
<td>EE 241 Circuits</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>GE ELECT</td>
<td>MATH 341 Differential Equations</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE PHIL</td>
<td>PHIL 210 Ethics</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE T/R/S–PHIL</td>
<td>T/R/S 121 Theology I</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE S/BH</td>
<td>PSYC 110–EDUC 222 Fund. of Psych.–Ed. Psych.</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE PHED</td>
<td>PHED ELECT Physical Education</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>18</td>
<td>18</td>
</tr>
<tr>
<td><strong>Third Year</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAJOR</td>
<td>EDUC 313 General Methods &amp; Planning</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MAJOR</td>
<td>EDUC 380 Field Experience III</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>MAJOR</td>
<td>EDUC 340 Reading in Secondary Schools</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>COGNATE</td>
<td>MLANG 321–322 Stylistics I–II</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>COGNATE</td>
<td>COGNATE ELECT Modern Language Elective</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>GE ELECT</td>
<td>FREE ELECT Free Elective</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE ELECT</td>
<td>SOCI 234 Cultural Anthropology</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE PHED</td>
<td>PHED ELECT Physical Education</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>18</td>
<td>18</td>
</tr>
<tr>
<td><strong>Fourth Year</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAJOR</td>
<td>EDUC 475 Secondary Classroom Mgmt. &amp; Disc.</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MAJOR</td>
<td>EDUC 476 Planning in Secondary Student Teaching</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>MAJOR</td>
<td>EDUC 477 Instruction in Secondary Student Teaching</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MAJOR</td>
<td>EDUC 478 Managing Clerms. in Sec. Stud. Teaching</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>MAJOR</td>
<td>EDUC 479 Prof. Growth in Sec. Student Teaching</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>COGNATE</td>
<td>COGNATE ELECT Modern Language Elective</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>GE PHIL</td>
<td>PHIL 306 Philosophy of Education</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE PHIL</td>
<td>PHIL 210 Ethics</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE ELECT</td>
<td>ELECT Related Elective</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>18</td>
<td>15</td>
</tr>
<tr>
<td><strong>TOTAL: 138 CREDITS</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1 Includes service-learning component. Freshman Seminar service commitment is 20 hours, with no service requirement in sophomore year.
2 Semesters may be reversed at the discretion of the department.
3 Students studying abroad should take EDUC 340 during Intersession.
4 Students studying abroad should take EDUC 340 during Intersession.

1 Students whose specialization within Modern Languages 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.
5 Students who begin language study at the advanced level (311) will take 6 credits in advanced MLANG electives.
6 Students may be reversed at the discretion of the department.
7 Students studying abroad should take EDUC 340 during Intersession.
8 Students studying abroad should take EDUC 340 during Intersession.
EXERCISE SCIENCE AND SPORT

Faculty

David A. Hair, M.Ed., M.S., Chair
Ronald W. Dietrick, Ph.D., Program Director of Exercise Science
Virginia M. Corcoran, Ed.D., R.D.
Debra L. Fetherman, Ph.D.
John S. Hopkins, M.Ed.
Stephen L. Klingman, M.S.
John B. Robertson, M.A.
J. Michael Strong, M.S.
Gary N. Wodder, Ph.D.

Overview

The Department of Exercise Science and Sport consists of three areas: a major in Exercise Science, a minor in Coaching and physical education activity classes.

Exercise Science Major

Exercise Science 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. Exercise Science is part of the field of Sports Medicine, which also includes clinical areas of medicine, biology, physiology, and exercise science. 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.

In order to graduate, Exercise Science majors must maintain an overall 2.5 GPA in major courses. A minimum grade of C (2.0) must be earned in each major and cognate course. Students not receiving a C or better in BIOL 111/111L and EXSC 210 will not be allowed to advance in Exercise Science course work. For each Exercise Science course thereafter, the student must have earned a C in any required prerequisite course.

Coaching Minor

The 15-credit Coaching minor 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.

PHED 160: Coaching Principles (1 cr.) is a suggested prerequisite for the 3-credit courses.

Physical Education

The Physical Education program seeks to improve the physical-fitness levels of each student, introduce new activities, or improve and increase students’ recreational skills through our offerings of over 30 different courses. Emphasis is placed on instruction in a variety of popular sports and recreational activities, especially those with carry-over value for post-college years.

Every regularly enrolled student must satisfy the 3-credit Physical Education requirement unless excused by the department. It is possible to be excused from Physical Education.

Exercise Science Curriculum

<table>
<thead>
<tr>
<th>Year</th>
<th>Department and Number</th>
<th>Descriptive Title of Course</th>
<th>Fall Cr.</th>
<th>Spr. Cr.</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Year</td>
<td>EXSC 210</td>
<td>Exercise and Sport Physiology</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td></td>
<td>BIOL 110–111</td>
<td>Structure and Function of Human Body</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>CHEM 112–113</td>
<td>General and Analytical Chemistry</td>
<td>4.5</td>
<td>4.5</td>
</tr>
<tr>
<td></td>
<td>WRTG 107–COMM 100</td>
<td>Composition—Public Speaking</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>C/J 102/102L</td>
<td>Computing and Information Literacy</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>MATH 103 or 114</td>
<td>Pre-Calculus OR Analysis I</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td></td>
<td>INTD 100</td>
<td>Freshman Seminar1</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Second Year</td>
<td>EXSC 212</td>
<td>Nutrition in Exercise and Sport</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>EXSC 229</td>
<td>Applied Anatomy and Kinesiology</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>EXSC 313</td>
<td>Biomechanics of Sport and Exercise</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>BIOL 245</td>
<td>General Physiology</td>
<td>4.5</td>
<td>4.5</td>
</tr>
<tr>
<td></td>
<td>PHED 112</td>
<td>First Aid/CPR/AED</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>PHLH 120–121</td>
<td>Intro. to Philosophy—Theology I</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>EXSC 120–121</td>
<td>General Physics</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>HUMN ELECT</td>
<td>Humanities Electives (Cultural Diversity)</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>PSYC 110</td>
<td>Fundamentals of Psychology</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Third Year</td>
<td>EXSC 240</td>
<td>Prevention &amp; Care of Sports Injuries</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>EXSC 375</td>
<td>Exercise Testing/Programming</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>EXSC 380 or 560</td>
<td>Internship in Exercise Science OR</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>BIOL 111/111L and EXSC 210</td>
<td>Essentials of Strength Training &amp; Cond.1</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>EDUC 120 or PSYC 210</td>
<td>Clinical Exercise Physiology</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>BIOL or CHEM ELECT</td>
<td>Applied Stats OR Stats in Behavioral Sci.</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>PHLH 120–121</td>
<td>BIOL 250, 348 or 446 OR CHEM 232</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>FREE ELECT</td>
<td>Ethics—Theology II</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>HUMN ELECT</td>
<td>Free Elective</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>PHED ELECT</td>
<td>Humanities Elective</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Physical Education</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Fourth Year</td>
<td>EXSC 413</td>
<td>Worksite Health Promotion</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>EXSC 440</td>
<td>Adv. Physiology of Sport and Exercise</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>EXSC 448</td>
<td>Research Methods in Exercise Science</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>EXSC 455</td>
<td>Exercise, Nutrition and Women’s Health</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>PHED ELECT</td>
<td>Physical Education</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>PSYC 284</td>
<td>Sports Psychology</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>S/BH ELECT</td>
<td>Social/Behavioral Elective</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>PHLH 120–121</td>
<td>Philosophy or T/RS Elective</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>HUMN ELECT</td>
<td>Humanities Electives</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>FREE ELECT</td>
<td>Free Elective</td>
<td>3</td>
<td>3</td>
</tr>
</tbody>
</table>
| TOTAL: 130.5 CREDITS

1 Includes service-learning component
2 Elective
3 BIOL 250, 348 or 446 may be placed in the General Education elective area.
Coaching Minor Curriculum

**Course Descriptions**

**Exercise Science**

**(E) NUTR 101**

Introduction to Nutrition

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.

**EXSC 210**

Sport and Exercise Physiology

(Prerequisite: BIOL 110 or permission of instructor) This course explores the physiological principles and systems underlying sport performance – aerobic and anaerobic energy, oxygen transport, and acid-base balance. Students will learn how to apply the principles to improve human performance. Includes service-learning component.

**EXSC 212**

Nutrition in Exercise and Sport

(Prerequisites: EXSC 210 or BIOL 347, CHEM 112-113 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.

**NUTR 220**

Nutrition for the Health Professions

(Prerequisites: BIOL 110-111, CHEM 110 or 112, pre- or co-requisite: CHEM 111 or 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.

**EXSC 229**

Applied Anatomy and Kinesiology

(Prerequisite: BIO 110-111) 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.

**EXSC 240**

Prevention and Care of Sports Injuries

(Prerequisite: Exercise Science major) 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.

**EXSC 313**

Biomechanics of Sport and Exercise

(Prerequisites: BIO 110-111, PHYS 120 and EXSC 229) This course introduces the student to the concepts and principles of biomechanics as they relate to sport and exercise. Includes service-learning component.

**EXSC 350**

Nutrition through the Life Cycle

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.

**EXSC 360**

Essentials of Strength Training and Conditioning

(Prerequisite: EXSC 210) 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. The course is designed to enhance students’ current level of knowledge in preparation for the National Strength and Conditioning Association (NSCA) Certified Strength and Conditioning Specialist (CSCS) certification.

**EXSC 375**

Exercise Testing/Programming for Health and Performance

(Prerequisites: EXSC 210, major in EXSC 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.

**EXSC 380**

Internship in Exercise Science

(Prerequisites: EXSC 375; major only) The application of Exercise Science 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.

**EXSC 412**

(W) Current Topics in Exercise Science and Sports Medicine

(Prerequisite: EXSC 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. Includes service-learning component.

**EXSC 413**

(W) Worksite Health Promotion

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.

**EXSC 435**

(D) Exercise, Nutrition and Women's Health

This course is designed to concentrate on the applied psychological and selected sports medicine concerns of the female athlete, including nutrition, body composition, osteoporosis, specific exercise training, female injuries and training, and psychosocial issues.

**EXSC 440**

Advanced Physiology of Sport and Exercise

(Prerequisite: Fourth year standing in Exercise Science) Advanced concepts of human performance as related to sport and exercise including physiological limits, Bioenergetics, fiber type/myofibrillar structure of skeletal muscle, cardiovascular dynamics and the athletic heart, and pulmonary ventilation and aerobic performance.

**EXSC 442**

Clinical Exercise Physiology

(Prerequisite: EXSC 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.

**EXSC 448**

Research Methods in Exercise Science

(Prerequisites: Fourth-year standing in Exercise Science, EXSC 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.

**Coaching**

**PHED 112**

First Aid/CPR/AED

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.
PHED 160
Coaching Principles
Prerequisite course that will assist prospective coaches as they develop a positive coaching philosophy, apply coaching principles and use sport-management skills.

PHED 202
Sports Administration
Examines the business of coaching, offering practical approaches to the administrative functions of organizing, planning, leading and controlling. Integrates philosophy and principles into practice.

PHED 203
Sport First Aid
Course is designed to help coaches train athletes properly, prevent injuries whenever possible, and respond quickly and correctly to athletes' injuries.

PHED 205
Teaching Sports Skills
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.

PHED 208
Conditioning and Training for Sports
(Formerly PHED 210) 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.

PSYC 238
Exercise and Sport Psychology
(Prerequisite: PSYC 110) This course covers a variety of topics in sports psychology including the learning of athletic skills, principles of motivation, goal-setting and reinforcement. The emotional aspects of sports competition and various strategies for mental preparation for competition such as relaxation, concentration, and attentional skills will be discussed.

HEALTH ADMINISTRATION

Faculty
Daniel J. West, Ph.D., Chair
Robert J. Spinelli, D.B.A., Program Director
Peter C. Olden, Ph.D.
Terri Freeman Smith, Ph.D.
Steven J. Szylowski, M.B.A., D.H.A.
William G. Wallick, 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, as well as 10 hours of community service each semester. 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, combined BS/MHA for qualified students.

Requirements for graduation include a minimum 2.5 GPA in all major courses, as well as a minimum grade of C or better in all cognate courses. A service learning component is integrated into one health administration course each semester. College of Graduate and Continuing Education students will meet the service-learning requirement by completing major courses that have a service-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.

HADM 211
(Formerly: HADM 111 or 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. Includes service-learning component.

HADM 212
Health Administration Law
The legal and regulatory environment of health care and the administration of health care services.

HADM 213
Supervising Health Personnel
Principles and practices of direct supervision of health care personnel including motivation, leadership and human resources functions.

HADM 284
Special Topics
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
(W) Research in Health Administration
(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 311
3 cr.
Introduction to Health Administration
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. Includes service-learning component.

HADM 312
Health Systems
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. Includes service-learning component.

HADM 315
3 cr.
(D) Cultural Diversity and Health Administration
(Prerequisites: HADM major or minor; HADM 211 or permission of instructor) The principles...
**Health Administration Curriculum**

<table>
<thead>
<tr>
<th>Department and Number</th>
<th>Descriptive Title of Course</th>
<th>Fall Cr.</th>
<th>Spr. Cr.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>First Year</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAJOR HADM 111</td>
<td>Introduction to Health Administration</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MAJOR HADM 112</td>
<td>Health Systems</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE FSEM</td>
<td>INTD 100</td>
<td>Freshman Seminar</td>
<td>1</td>
</tr>
<tr>
<td>GE SPCH</td>
<td>COMM 100</td>
<td>Public Speaking</td>
<td>1</td>
</tr>
<tr>
<td>GE PHIL-T/RS</td>
<td>PHIL 120-T/RS 121</td>
<td>Intro. to Philosophy–Theology I</td>
<td>3</td>
</tr>
<tr>
<td>GE WRTG</td>
<td>WRTG 107</td>
<td>Composition</td>
<td>3</td>
</tr>
<tr>
<td>GE C/JL</td>
<td>C/JL 104</td>
<td>Computing &amp; Info. Lit. for Business</td>
<td>3</td>
</tr>
<tr>
<td>GE NSCI</td>
<td>NSCI ELECT</td>
<td>Natural Science Elective</td>
<td>3</td>
</tr>
<tr>
<td>GE QUAN</td>
<td>PSYC 110</td>
<td>Psychological Statistics</td>
<td>3</td>
</tr>
<tr>
<td>GE S/BH</td>
<td>ECO 101</td>
<td>Current Economic Issues</td>
<td>3</td>
</tr>
<tr>
<td>GE HUMN</td>
<td>HUMN ELECT</td>
<td>Humanities Elective</td>
<td>3</td>
</tr>
<tr>
<td>GE PHED</td>
<td>PHED ELECT</td>
<td>Physical Education</td>
<td>1</td>
</tr>
<tr>
<td><strong>Second Year</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAJOR HADM 293</td>
<td>Research in Health Administration</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MAJOR HADM 211</td>
<td>Health Administration</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MAJOR HADM 212</td>
<td>Health Administration Law</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>COGNATE</td>
<td>ACC 253</td>
<td>Financial Accounting</td>
<td>3</td>
</tr>
<tr>
<td>GE PHIL-T/RS</td>
<td>PHIL 210</td>
<td>Ethics</td>
<td>3</td>
</tr>
<tr>
<td>GE PHIL-T/RS</td>
<td>PHIL 212</td>
<td>Medical Ethics</td>
<td>3</td>
</tr>
<tr>
<td>GE PHIL-T/RS</td>
<td>T/RS 122</td>
<td>Theology II</td>
<td>3</td>
</tr>
<tr>
<td>COGNATE</td>
<td>MGT 351</td>
<td>Principles of Management I</td>
<td>3</td>
</tr>
<tr>
<td>COGNATE</td>
<td>ELECT</td>
<td>Electives</td>
<td>3</td>
</tr>
<tr>
<td>GE NSCI</td>
<td>NSCI ELECT</td>
<td>Natural Science Elective</td>
<td>3</td>
</tr>
<tr>
<td>GE HUMN</td>
<td>HUMN ELECT</td>
<td>Humanities Elective</td>
<td>3</td>
</tr>
<tr>
<td><strong>Third Year</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAJOR HADM 312</td>
<td>Health Finance</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MAJOR HADM</td>
<td>Health Administration Elective</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MAJOR HADM</td>
<td>Career Seminar</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>MAJOR HADM</td>
<td>Internship in Health Administration</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>COGNATE</td>
<td>FIN 351</td>
<td>Introduction to Finance</td>
<td>3</td>
</tr>
<tr>
<td>COGNATE</td>
<td>MKT 351</td>
<td>Introduction to Marketing</td>
<td>3</td>
</tr>
<tr>
<td>COGNATE</td>
<td>ELECT</td>
<td>Elective</td>
<td>3</td>
</tr>
<tr>
<td>GE HUMN</td>
<td>HUMN ELECT</td>
<td>Humanities Elective</td>
<td>3</td>
</tr>
<tr>
<td>GE ELECT</td>
<td>FREE ELECT</td>
<td>Free Elective</td>
<td>3</td>
</tr>
<tr>
<td>GE PHED</td>
<td>PHED ELECT</td>
<td>Physical Education</td>
<td>1</td>
</tr>
<tr>
<td><strong>Fourth Year</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAJOR HADM 411</td>
<td>Cultural Diversity &amp; Health Admin.</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MAJOR HADM ELECT</td>
<td>Health Administration Elective</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MAJOR HADM 441</td>
<td>Issues in Health Administration</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>COGNATE</td>
<td>ECO/IB 351</td>
<td>Environment of International Business</td>
<td>3</td>
</tr>
<tr>
<td>COGNATE</td>
<td>OIM 471</td>
<td>Business Information Management</td>
<td>3</td>
</tr>
<tr>
<td>COGNATE</td>
<td>COGNATE ELECT</td>
<td>Elective</td>
<td>3</td>
</tr>
<tr>
<td>GE S/BH</td>
<td>S/BH ELECT</td>
<td>Social/Behavioral Elective</td>
<td>3</td>
</tr>
<tr>
<td>GE ELECT</td>
<td>FREE ELECT</td>
<td>Free Electives</td>
<td>3</td>
</tr>
<tr>
<td>GE PHED</td>
<td>PHED ELECT</td>
<td>Physical Education</td>
<td>1</td>
</tr>
</tbody>
</table>

**TOTAL: 131 CREDITS**

---

**Health Administration – Concentration in Long-Term Care Administration Curriculum**

<table>
<thead>
<tr>
<th>Department and Number</th>
<th>Descriptive Title of Course</th>
<th>Fall Cr.</th>
<th>Spr. Cr.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>First Year</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAJOR HADM 111</td>
<td>Introduction to Health Administration</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MAJOR HADM 112</td>
<td>Health Systems</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE FSEM</td>
<td>INTD 100</td>
<td>Freshman Seminar</td>
<td>1</td>
</tr>
<tr>
<td>GE PHIL-T/RS</td>
<td>PHIL 120-T/RS 121</td>
<td>Intro. to Philosophy–Theology I</td>
<td>3</td>
</tr>
<tr>
<td>GE SPCH</td>
<td>COMM 100</td>
<td>Public Speaking</td>
<td>3</td>
</tr>
<tr>
<td>GE WRTG</td>
<td>WRTG 107</td>
<td>Composition</td>
<td>3</td>
</tr>
<tr>
<td>GE C/JL</td>
<td>C/JL 104</td>
<td>Computing &amp; Info. Lit. for Business</td>
<td>3</td>
</tr>
<tr>
<td>GE NSCI</td>
<td>NSCI ELECT</td>
<td>Natural Science Elective</td>
<td>3</td>
</tr>
<tr>
<td>GE QUAN</td>
<td>PSYC 110</td>
<td>Psychological Statistics</td>
<td>3</td>
</tr>
<tr>
<td>GE S/BH</td>
<td>GEO 110</td>
<td>Introduction to Gerontology</td>
<td>3</td>
</tr>
<tr>
<td>MAJOR S/BH</td>
<td>GEO 216</td>
<td>Aging and Community</td>
<td>3</td>
</tr>
<tr>
<td>GE PHED</td>
<td>PHED ELECT</td>
<td>Physical Education</td>
<td>1</td>
</tr>
<tr>
<td><strong>Second Year</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAJOR HADM 293</td>
<td>Research in Health Administration</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MAJOR HADM 211</td>
<td>Health Administration</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MAJOR HADM 212</td>
<td>Health Administration Law</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>COGNATE</td>
<td>ACC 253</td>
<td>Financial Accounting</td>
<td>3</td>
</tr>
<tr>
<td>GE PHIL-T/RS</td>
<td>PHIL 210</td>
<td>Ethics</td>
<td>3</td>
</tr>
<tr>
<td>GE PHIL-T/RS</td>
<td>PHIL 212</td>
<td>Medical Ethics</td>
<td>3</td>
</tr>
<tr>
<td>GE PHIL-T/RS</td>
<td>T/RS 122</td>
<td>Theology II</td>
<td>3</td>
</tr>
<tr>
<td>COGNATE</td>
<td>MGT 351</td>
<td>Principles of Management I</td>
<td>3</td>
</tr>
<tr>
<td>COGNATE</td>
<td>ELECT</td>
<td>Electives</td>
<td>3</td>
</tr>
<tr>
<td>GE NSCI</td>
<td>NSCI ELECT</td>
<td>Natural Science Elective</td>
<td>3</td>
</tr>
<tr>
<td>GE HUMN</td>
<td>HUMN ELECT</td>
<td>Humanities Elective</td>
<td>3</td>
</tr>
<tr>
<td><strong>Third Year</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAJOR HADM 312</td>
<td>Health Finance</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MAJOR HADM</td>
<td>Health Administration Elective</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MAJOR HADM 340</td>
<td>Career Seminar</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>MAJOR HADM</td>
<td>Internship in Health Administration</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>COGNATE</td>
<td>FIN 351</td>
<td>Introduction to Finance</td>
<td>3</td>
</tr>
<tr>
<td>COGNATE</td>
<td>MKT 351</td>
<td>Introduction to Marketing</td>
<td>3</td>
</tr>
<tr>
<td>COGNATE</td>
<td>ELECT</td>
<td>Elective</td>
<td>3</td>
</tr>
<tr>
<td>GE HUMN</td>
<td>HUMN ELECT</td>
<td>Humanities Elective</td>
<td>3</td>
</tr>
<tr>
<td>GE ELECT</td>
<td>FREE ELECT</td>
<td>Free Elective</td>
<td>3</td>
</tr>
<tr>
<td>GE PHED</td>
<td>PHED ELECT</td>
<td>Physical Education</td>
<td>1</td>
</tr>
<tr>
<td><strong>Fourth Year</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAJOR HADM 411</td>
<td>Issues in Health Administration</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MAJOR HADM 480</td>
<td>Internship in LTC Administration</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>COGNATE</td>
<td>OIM 471</td>
<td>Business Information Management</td>
<td>3</td>
</tr>
<tr>
<td>GE HUMN</td>
<td>HUMN ELECT</td>
<td>Humanities Elective</td>
<td>6</td>
</tr>
<tr>
<td>GE ELECT</td>
<td>FREE ELECT</td>
<td>Free Elective</td>
<td>3</td>
</tr>
<tr>
<td>GE PHED</td>
<td>PHED ELECT</td>
<td>Physical Education</td>
<td>1</td>
</tr>
</tbody>
</table>

**TOTAL: 134 CREDITS**

---

1 Includes service-learning component
of management of culturally diverse society 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 3 cr.
Health Care Marketing
Marketing theories, concepts, and strategies as applied to the health care field.

HADM 318 3 cr.
Long-Term Care Administration
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. Includes service-learning component.

HADM 330 3 cr.
Managed Care
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 3 cr.
International Health Care
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 3 cr.
Health Information Technology
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 3 cr.
Managerial Epidemiology
(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 340 1 cr.
Career Seminar
A survey of current trends and occupations in Health Administration with an emphasis on advanced planning and preparation for the required internship experience.

HADM 380 12 cr.
Internship in Health Administration
(Prerequisites: HADM 340, 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 441 3 cr.
Issues in Health Care Administration
(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 service-learning component.

HADM 480 3 cr.
Internship in Long-Term Care Administration
(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 3 cr.
Internship in Health Administration
(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.

HUMAN RESOURCES STUDIES

Faculty
Daniel J. West, Ph.D., Chair
William G. Vallick, Ph.D., Program Director
Peter C. Odgen, Ph.D.
Terri Freeman Smith, Ph.D.
Robert J. Spinelli, D.B.A.
Steven J. Szydlowski, M.B.A., D.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 lifelong 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. Program highlights include:

Bachelor of Science Degree
- 131 credits with 37 credits from HRS major courses
- Required internship to gain practical work experience
- National and global focus – study abroad is encouraged
- Required 80-hour service learning component
- Combined B.S./M.S. can be earned in a five-year period

Minor in Human Resources Studies
The student must take a minimum of 18 credits. Five courses are required: HRS 111, 112, 251, 252, and 340 plus one HRS elective.

Course Descriptions
HRS 111 3 cr.
(S) Macro Human Resources
An introduction to the changing nature of work, including trends, theories, concepts, and practices for maintaining an effective workforce.

HRS 112 3 cr.
Micro Human Resources
An introduction to the major functional areas of the human resources field. Includes service-learning component.

HRS 251 3 cr.
(W) Performance Appraisal
A review of the performance management process including the design and implementation of job descriptions and of accompanying performance appraisal systems. Includes service-learning component.

HRS 252 3 cr.
(W) Workforce Education and Training
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 service-learning component.

HRS 284 3 cr.
Special Topics
Selected topics in human resources are offered on a variable basis.

HRS 293 3 cr.
Research Applications in Human Resources
An introduction to research methodology as applied to human resources issues and problems with an emphasis on experimental and quasi-experimental designs.
<table>
<thead>
<tr>
<th>Human Resources Studies Curriculum</th>
<th>Description Title of Course</th>
<th>Fall Cr.</th>
<th>Spring Cr.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>First Year</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAJOR 111</td>
<td>Micro Human Resources</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MAJOR 112</td>
<td>Micro Human Resources</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE S/BH PSY 110</td>
<td>Fundamentals of Psychology</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE ESEM INTD 100</td>
<td>Summer Seminar</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>GE PHIL-T/RS PHIL 120-121</td>
<td>Intro to Philosophy-Theology I</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>GE SPCH COMM 100</td>
<td>Public Speaking</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE WRTG WRTG 107</td>
<td>Composition</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE C/IL C/IL 104</td>
<td>Computing and Information Literacy</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE NSCI NSCI ELECT</td>
<td>Natural Science Elective</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE QUAN PSY 210</td>
<td>Statistics in the Behavioral Sciences</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE PHED PHED ELECT</td>
<td>Physical Education</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>17</td>
<td>16</td>
</tr>
<tr>
<td><strong>Second Year</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAJOR HRS 251</td>
<td>Performance Appraisal</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MAJOR HRS 292</td>
<td>Workforce Education and Training</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MAJOR HRS 293</td>
<td>Research Applications in HR</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>COGNATE ACC 255</td>
<td>Financial Accounting</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>COGNATE PSY 335</td>
<td>Psychological Testing</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE S/BH ECO 101</td>
<td>Current Economic Issues</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE PHIL-T/RS PHIL 210</td>
<td>Ethics</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE PHIL-T/RS PHIL-T/RS</td>
<td>Philosophy-T/RS Elective</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE PHIL-T/RS TRS 122</td>
<td>Theology II</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE NSCI NSCI ELECT</td>
<td>Natural Science Elective</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE HUMN HUMN ELECT</td>
<td>Humanities Elective</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE PHED PHED ELECT</td>
<td>Physical Education</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>16</td>
<td>18</td>
</tr>
<tr>
<td><strong>Third Year</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAJOR HRS 340</td>
<td>Compensation and Benefits</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MAJOR HRS 351</td>
<td>Recruitment, Selection and Staffing</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MAJOR HRS 353</td>
<td>HR Information Systems</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MAJOR HRS 390</td>
<td>Career Seminar</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MAJOR HRS ELECT</td>
<td>HRS Elective</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>COGNATE MGT 351</td>
<td>Principles of Management I</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>COGNATE FIN 351</td>
<td>Introduction to Finance</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>COGNATE ECO 351</td>
<td>Environment of International Business</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>COGNATE MKT 351</td>
<td>Introduction to Marketing</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>COGNATE COGNATE ELECT</td>
<td>Cognate Elective</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE HUMN HUMN ELECT</td>
<td>Humanities Elective</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE ELECT FREE ELECT</td>
<td>Free Elective</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>18</td>
<td>16</td>
</tr>
<tr>
<td><strong>Fourth Year</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAJOR HRS 480</td>
<td>Internship</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>MAJOR HRS 490</td>
<td>Leadership Seminar</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>COGNATE OM 471</td>
<td>Business Information Management</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>COGNATE COGNATE ELECT</td>
<td>Cognate Elective</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE HUMN HUMN ELECT</td>
<td>Humanities Elective</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>GE ELECT FREE ELECT</td>
<td>Free Electives</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>TOTAL: <strong>131 CREDITS</strong></td>
<td></td>
<td>15</td>
<td>15</td>
</tr>
</tbody>
</table>

1 Includes service-learning component

HRS 315 Diversity
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 351 Globalization and Human Resource Management
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
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
A study of the techniques, methods, and requirements for identifying, screening, evaluating, and selecting prospective job candidates. Includes service-learning component.

HRS 353 Human Resources Information Systems
An introduction to the various computer software applications related to the human resource field.

HRS 354 Employee and Labor Relations
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
An independent study experience on a specific human resources–related topic or a research project.
the role of the nurse includes an emphasis on patient-centered care, preparation to function as members of an interdisciplinary health-care team, the use of evidence in practice, quality improvement and informatics. The graduate is prepared to deliver nursing-care services to individuals, families, communities and populations as well as participate in the advancement of the nursing profession through contributions to practice, education and administration. Maintaining the integrity of the profession and its practice is developed through experiences that emphasize principles of leadership, social justice and health-care advocacy. The baccalaureate program provides a foundation for graduate education in nursing.

High school graduates are admitted as freshmen 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 Nursing program is accredited by the Commission on Collegiate Nursing Education (CCNE), One Dupont Circle, NW, Suite 530, Washington, DC 20036-1120, (202) 887-6791. 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 felony act. For details, see the admissions materials and the Student Handbook of the Department of Nursing. Prior to clinical courses during the second semester of sophomore year, all Nursing majors are required to submit a Pennsylvania Child Abuse History Clearance and a Pennsylvania State Police Criminal Record Check to the Nursing Department. Students whose primary residence is out of state must also submit an FBI background check. These clearances are maintained on file in the Department of Nursing. Copies will be provided to clinical sites upon request.

Upon graduation the student is eligible for admission to the NCLEX (National Council Licensure Examination).

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 average grade of C must be attained in 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 2.5 or higher and a GPA of 2.7 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 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 Credit Satisfactory (CS) or No Credit (NC). If the student’s performance in the clinical laboratory of a Nursing course is satisfactory and a grade of C or higher is achieved in the theoretical component of the course, a grade of CS is awarded for the clinical laboratory. If a student’s performance in the clinical laboratory of a Nursing course is unsatisfactory, a grade of NC is recorded for the theoretical component of the course as well as the course. A grade of C-, D+, D or F is recorded for the theoretical component of the course if a student receives a grade of C-, D+, D or F in the theoretical component of the course, a grade of NC is recorded for the clinical laboratory component. 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.

Clinical Requirements

Prior to the second semester of the sophomore year, students enrolled in the Nursing program must present a certificate as evidence of having completed the Cardiopulmonary Resuscitation and AED Basic Life Support course for health-care providers by the American Heart Association or CPR for the Professional Rescuer by the American Red Cross. In order to graduate, Nursing majors are required to complete a minimum of 20 hours of community service during freshman and sophomore years, for a total of 40 hours. College of Graduate and Continuing Education students will meet the service-learning requirement by completing major courses that have a service-learning component.

In addition to the general University tuition and fees, students majoring in Nursing assume responsibility for the following: uniforms and other required clinical accessories, yearly physical examinations, entrance eye examination, 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. Senior status in the program is defined as completion of at least 100 credits, including cognate and prerequisite courses for NURS 450 and NURS 452.

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. For B.S. requirements, please see the section on the College of Graduate and Continuing Education.

Forensic Health Concentration

This concentration is open to all under-graduate students but is of particular interest to those in health-related majors such as Nursing, Counseling and Human Services, and Occupational Therapy. Requirements for the concentration include four 3-credit courses and one 3-credit elective course for a total of 15 credits. See page 86 for further details about the Forensic Health Concentration.

Course Descriptions

NURS 100

Family Health

(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

(Open to all students; not a Natural Science course) Course focuses on health, medical and social aspects of health and disease in women. 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

(W) Introduction to Nursing Concepts

An exploration of the core concepts of the client, health, illness, and health system frameworks. 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. Service learning: 20 hours. Three lecture hours.

NURS 213

(W) Child and Adolescent Health Promotion

(Recommended prerequisite: PSYC 221, 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 241

(W) Perspectives in Professional Nursing

(Prerequisites: WRTG 107; sophomore standing in Nursing; licensed nurses only; co-require: C/JL 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 the nursing profession are addressed.

NURS 242

3 cr.

Nursing Related to the Assessment of Health Patterns

(Prerequisites: sophomore standing, licensed nurses only; pre- or co-require: NURS 241)
Nursing Curriculum

<table>
<thead>
<tr>
<th>Department and Number</th>
<th>Descriptive Title of Course</th>
<th>Fall Cr.</th>
<th>Spr. Cr.</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Year</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAJOR</td>
<td>NURS 140</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Introduction to Nursing Concepts</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GE PHIL-T/RS</td>
<td>PHIL 120</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Introduction to Philosophy</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GE PHIL-T/RS</td>
<td>PHIL 210</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Fundamentals of Psychology</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GE S/BH</td>
<td>PSYC 110</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Computing and Informational Literacy</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GE HUMN ELECT</td>
<td>HUMN ELECT</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Humanities Electives</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GE ELECT</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Physical Education</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>GE C/IL</td>
<td>PSYC 225</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Abnormal Psychology</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GE PHED</td>
<td>PHED ELECT</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Physical Education</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Second Year</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAJOR</td>
<td>NURS 250</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Physical Assessment/Health Patterns</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAJOR</td>
<td>NURS 251</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Nursing Related to the Health Patterns</td>
<td></td>
<td></td>
</tr>
<tr>
<td>COGNATE</td>
<td>NUTR 220</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Nutrition for Health professions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>COGNATE</td>
<td>BIOL 210</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Introductory Medical Microbiology</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GE QUANT</td>
<td>PSYC 210</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Psychological Statistics</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GE PHIL-T/RS</td>
<td>PHIL 210</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Ethics</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GE PHIL-T/RS</td>
<td>T/R 121–122</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Theology I–II</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GE HUMN</td>
<td>HUMN ELECT</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Humanities Electives</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GE S/BH</td>
<td>PSYC 225</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Abnormal Psychology</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GE PHED</td>
<td>PHED ELECT</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Physical Education</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Third Year</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAJOR</td>
<td>NURS 350–371</td>
<td>5.5</td>
<td>5.5</td>
</tr>
<tr>
<td></td>
<td>Nursing Care of the Adult I–II</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAJOR</td>
<td>NURS 352</td>
<td>5.5</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mental Health Nursing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAJOR</td>
<td>NURS 373</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Nursing Care of the Childbearing Family</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAJOR</td>
<td>NURS 360–361</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Pharmacology II–III</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GE PHIL-T/RS</td>
<td>PHIL 212</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Medical Ethics</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GE ELECT</td>
<td>PSYC 225–ELECT</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Childhood and Adolescence-Elective</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fourth Year</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAJOR</td>
<td>NURS 450</td>
<td>5.5</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Nursing Care of the Adult III</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAJOR</td>
<td>NURS 452</td>
<td>4.5</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Nursing Care of Children and Adolescents</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAJOR</td>
<td>NURS 493</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Research in Nursing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAJOR</td>
<td>NURS 471</td>
<td>3.5</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Community Health Nursing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAJOR</td>
<td>NURS 473</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Synth. of Leadership Concepts in Nursing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MAJOR</td>
<td>NURS 474</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Critical Care Nursing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GE HUMN</td>
<td>HUMN ELECT</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Humanities Electives</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GE ELECT</td>
<td>FREE ELECT</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Free Elective</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GE PHED</td>
<td>PHED ELECT</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Physical Education</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Service learning: 10 hours. Two hours lecture.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Six hours campus/clinical laboratory.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Two hours lecture and three hours campus laboratory.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>TOTAL: 135 CREDITS</td>
<td>17</td>
<td>15.5</td>
</tr>
</tbody>
</table>

1 Fall or spring semester  
2 ROTC option available  
3 Recommended by the department

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 3 cr.  
Physical Assessment Related to Health Patterns  
(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. Service learning: 10 hours. Two hours lecture and three hours campus laboratory.

NURS 251 4 cr.  
Nursing Related to Health Patterns  
(Prerequisites: NURS 140, NURS 250; co-requirement: 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. Service learning: 10 hours. Two hours lecture, six hours campus/clinical laboratory.

NURS 252 1 cr.  
Pharmacology I  
(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.

NURS 310 3 cr.  
(D) Understanding Transcultural Health Care  
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 3 cr.  
(D) Nursing the Older Adult  
(Prerequisites: junior standing in Nursing, OT or PT) Focus on the professional nurse's role of care-giver, advocate and teacher in promoting and maintaining adaptive responses of the older adult experiencing alterations in health patterns. Emphasis placed on multidimensional assessment factors and interventions in meeting biopsychosocial needs.

NURS 314 3 cr.  
Principles of Nursing Ethics  
(Prerequisites: Philosophy 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 3 cr.  
Forensic Health Care of Victims  
(Prerequisite: PSYC 110) An overview of forensic health issues as they relate to victims of violent crimes, such as intrafamilial 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 3 cr.  
Forensic Health Care of Offenders  
(Prerequisite: PSYC 110) An overview of forensic health issues as they relate to perpetrators of violent crimes, including intrafamilial 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 5.5 cr.  
Nursing Care of the Adult I  
(Prerequisites: BIOL 210, CHEM 110-111, NURS 251; co-requirement: NURS 360 and NURS 352) 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 352 lab.

NURS 352 5.5 cr.  
Mental Health Nursing  
(Prerequisites: CHEM 110-111, BIOL 110-111, BIOL 210, NURS 251; co-requirement: NURS 360, NURS 350) The focus is on psychological adaptation to dysfunctional health patterns. Emphasis is placed on the nursing process and
NURS 360 Pharmacology II
(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. One hour lecture.

NURS 361 Pharmacology III
(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. One hour lecture.

NURS 371 Nursing Care of the Adult II
(Prerequisites: NURS 350, NURS 352; co-requirements: NURS 361, NURS 373 or NURS 452) 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
(Prerequisites: NURS 350, NURS 352; co-requirements: NURS 361, NURS 373 or NURS 452) 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 alterations in mobility, elimination, cognition, and perception are included. Three hours lecture, 15 hours clinical lab/week for seven weeks, alternate with NURS 373 or NURS 373 lab.

NURS 384 Perioperative Nursing
(Prerequisite: NURS 350) This course presents concepts and information essential for perioperative nursing practice. Content includes essentials of perioperative procedures in relation to nurses' planning and management of the patient's surgical experience. Perceived clinical experiences are provided in various phases of the perioperative nursing: preoperative, operative and post-anesthesia care. Emphasis is placed on the development of beginning skills in the operative setting. One hour lecture and six hours laboratory.

NURS 405 Health Writing for Publication
(Cross-listed with NURS 305; open to all junior and senior students) This course enables students to enhance their writing skills by utilizing principles of effective and ethical 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
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 450 Nursing Care of the Adult III
(Prerequisites: NURS 371, NURS 373, NURS 361; co-requirement: NURS 452) This is the final course in a three-course sequence that focuses on psychological and physiological 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
(Prerequisites: NURS 371, NURS 373, NURS 361; co-requirement: NURS 450) 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 framework 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.

NURS 471 (D) Community Health Nursing
(Prerequisites: NURS 450, NURS 452; co-requirement: NURS 473, NURS 475) 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 473 and 475 labs).

NURS 473 Synthesis of Leadership Concepts in Nursing
(Prerequisites: NURS 450, NURS 452; co-requirements: NURS 471, NURS 475) The focus is on the professional nurse's role as care giver, advocate, teacher and leader/manager in promoting, restoring, and maintaining adaptive responses in individuals experiencing complex alterations in functional health patterns. Continued use of the nursing process and the development of case management skills in implementing and evaluating nursing care in collaboration with the nursing and interdisciplinary health teams are emphasized. One hour/week lecture; 18 hours clinical lab/week for 4.5 weeks, alternate with NURS 471 and 475 labs.

The following option is available for R.O.T.C. Nurse cadets: Subject to annual review, 2 credits may be awarded for successful completion of the R.O.T.C. Nurse Summer Training Program (NSTP) in place of NURS 473 Lab.

NURS 475 Critical Care Nursing
(Prerequisites: NURS 450, NURS 452; co-requirements: NURS 471, NURS 473) The focus is on physiological and psychological adaptation to complex 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 complex alterations in health patterns are included.

One hour lecture/week; 18 hours clinical lab/week for 4.5 weeks, alternate with NURS 471 and 473 labs.

NURS 483 Independent Study in Nursing
(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 493 (W) Research in Nursing
(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.

OCCUPATIONAL THERAPY

Faculty
John P. Sanko, Ed.D., Chair
Marlene J. Morgan, Ed.D., Program Director
Karen L. Brady, M.O.T.
Rita P. Cottrell, M.A.
Molly Beth Mika, M.Ed.
Carol Reinson, Ph.D.

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 2.75 is required in order to advance into graduate study; a minimum, overall GPA of 3.00 must be achieved and maintained for all graduate courses. 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. Inquiries about admission to the B.S. to M.S. in OT program should be directed to the Graduate Office at (570) 941-7600.

**Capstone Experience**

Each student is required to propose and execute a graduate master’s-level research project that culminates in a thesis. This process begins in the first semester senior year with OT 493: Research Methods. The second semester of senior year is when students will make application to either the Department Review Board (DRB) and/or the Institutional Review Board (IRB). The thesis is written and publicly defended during the graduate year. Six credits are awarded for the thesis in a two-semester course sequence, OT 593 and OT 594.

**Accreditation**

The Occupational Therapy Program is accredited by the Accreditation Council for Occupational Therapy Education (ACOTE), located at 4720 Montgomery Lane, P.O. Box 31220, Bethesda, MD 20824-1220. AOTA’s phone number is (301) 652-AOTA. 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 Descriptions**

**OT 140 Introduction to Occupational Therapy**

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.

**OT 141 Occupational Therapy Theoretical Concepts**

An introduction to occupational therapy theories and models of practice, with emphasis on an analysis of their history, philosophical foundations, and applications to practice. This focus is on human occupation and adaptation, and its multicultural aspects. Three hours lecture/week, and ten hours of service learning.

**OT 240 Activity Analysis I**

(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. One hour lecture, four hours lab/week, and ten hours of service learning.

**Occupational Therapy Curriculum**

<table>
<thead>
<tr>
<th>Department and Number</th>
<th>Descriptive Title of Course</th>
<th>Fall Cr.</th>
<th>Int. Cr.</th>
<th>Spr. Cr.</th>
<th>Sum. Cr.</th>
</tr>
</thead>
</table>
| First Year

**MAJOR**

<table>
<thead>
<tr>
<th>OT 140</th>
<th>OT 256</th>
<th>OT 275</th>
<th>OT 276</th>
<th>OT 277</th>
<th>OT 278</th>
<th>OT 279</th>
<th>OT 280</th>
<th>OT 281</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>4</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>2</td>
</tr>
</tbody>
</table>

**GE**

<table>
<thead>
<tr>
<th>BIOL 110-111</th>
<th>SOC 110</th>
<th>PSYC 110</th>
<th>COMP 100-WRTG 107</th>
<th>PSIL 102</th>
<th>PHIL-TRS 120</th>
<th>PHIL-TRS 121</th>
<th>INTD 100-PHED</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
</tbody>
</table>

**COGNATE**

<table>
<thead>
<tr>
<th>PSYC 221-222</th>
<th>PSYC 210</th>
<th>PHIL-TRS 120</th>
<th>HUMN ELECT</th>
<th>PHED ELECT</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PHIL 120-121</th>
<th>INTD 100-PHED</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>3</td>
</tr>
</tbody>
</table>

| Third Year

**MAJOR**

<table>
<thead>
<tr>
<th>OT 240-241</th>
<th>OT 256</th>
<th>OT 275</th>
<th>OT 276</th>
<th>OT 277</th>
<th>OT 278</th>
<th>OT 279</th>
<th>OT 280</th>
<th>OT 281</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>4</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>2</td>
</tr>
</tbody>
</table>

**GE**

<table>
<thead>
<tr>
<th>INTD 100-PHED</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
</tr>
</tbody>
</table>

| Fourth Year

**MAJOR**

<table>
<thead>
<tr>
<th>OT 440</th>
<th>OT 451</th>
<th>OT 460</th>
<th>OT 461</th>
<th>OT 475</th>
<th>OT 480</th>
<th>OT 495</th>
<th>OT ELECT</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>2</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
</tbody>
</table>

**GE**

<table>
<thead>
<tr>
<th>PSYC 210</th>
<th>PHIL-TRS ELECT</th>
<th>HUMN ELECT</th>
<th>PHED ELECT</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
</tbody>
</table>

**Five Year**

**MAJOR**

<table>
<thead>
<tr>
<th>OT 581</th>
<th>OT 582</th>
<th>OT 583</th>
<th>OT 584</th>
<th>OT 585</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>6</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
</tbody>
</table>

**GE**

<table>
<thead>
<tr>
<th>HUMN ELECT</th>
<th>INTD 100-PHED</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>3</td>
</tr>
</tbody>
</table>

| Sixth Year (Summer)

**MAJOR**

<table>
<thead>
<tr>
<th>OT 581</th>
<th>OT 582</th>
<th>OT 583</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>6</td>
<td>6</td>
</tr>
</tbody>
</table>

**GE**

<table>
<thead>
<tr>
<th>PCPS 501</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>TOTAL: 172 (176) CREDITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Include service-learning component</td>
</tr>
<tr>
<td>2 Extra science credits</td>
</tr>
<tr>
<td>4 OT Level I Clinical I, II, III are each a minimum of two weeks, full-time.</td>
</tr>
<tr>
<td>6 OT Level II Internship I, II are required and each a minimum of 12 weeks, full time, in Psychosocial Rehabilitation and Physical Rehabilitation. Time period scheduled for individual students may vary as determined by the department, and with consideration of student needs and circumstances.</td>
</tr>
</tbody>
</table>

**Panuska College • Occupational Therapy**
OT 241 3 cr.
Activity Analysis II
(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. One hour lecture, four hours lab/week, and ten hours of service learning.

OT 256 4 cr.
Human Anatomy for OT
(Prerequisites: BIOL 110, 110L, 111, 111L) 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 3 cr.
Clinical Kinesiology
(Prerequisites: BIOL 110, 110L, 111, 111L; 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 strengthening requirements. 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 service learning.

OT 346 3 cr.
Pathological Conditions I
(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 356 3 cr.
Functional Neuroanatomy
(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 3 cr.
Occupational Therapy Practice I: Pediatrics
(Prerequisites: OT 240, 241, 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 service learning.

OT 361 3 cr.
Occupational Therapy Practice II: Psychosocial Rehabilitation
(Prerequisites: OT 240, 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 service learning.

OT 380 1 cr.
Occupational Therapy Level I Clinical – I: Pediatrics
(Prerequisites: OT 346, 356, 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. Internship, two weeks, full time.

OT 381 1 cr.
Occupational Therapy Level I Clinical – II: Psychosocial Rehabilitation
(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. Summer, two weeks, full time.

OT 440 3 cr.
Management and Supervision of Occupational Therapy Services
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 451 2 cr.
Hand Rehabilitation
(Prerequisites: OT 256, 275, 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 3 cr.
Occupational Therapy Practice III: Physical Rehabilitation
(Prerequisites: OT 256, 275, 346, 347, 356, 360, 361, 380, 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 service learning.

OT 461 3 cr.
(OT 461) Occupational Therapy Practice IV: Geriatrics
(Prerequisites: OT 346, 347, 356, 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 per week and ten hours of service learning.

OT 475 3 cr.
Advanced Therapeutic Techniques
(Prerequisites: OT 451, OT 460, OT 460) 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 1 cr.
Occupational Therapy Level I Clinical – III: Physical Rehabilitation
(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. Internship, two weeks, full time.

OT 493 3 cr.
(W) Research Methods in Occupational Therapy
(Prerequisite: PSYC 210) An introduction to research design, data collection, analysis, and interpretation of findings. Emphasis on critical review of occupational therapy research studies, application to clinical practice, quantitative and qualitative methods. Concepts are integrated through the preparation of a research proposal. Three hours lecture/week.

OT 501 3 cr.
Leadership in Occupational Therapy
(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 3 cr.
Advanced Occupational Therapy Theory
(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 560**

**Advanced Interpersonal Dynamics** (Prerequisite: OT 581 or 582) A review of the concepts and aspects of interpersonal, intraper-
sonal, and group dynamics provides a foundation for the student to understand the meaning of ill-
ness and how that impacts the human condition. An in-depth analysis of disability from the per-
spective of the disabled is explored. Two hours lecture, two hours lab per week or equivalent.

**OT 575**

**Community-based Practice** (Prerequisite: OT 581 or OT 582) In-depth exposure to selected areas that represent the cur-
rent 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 natu-
nal environments. Two hours lecture, two hours lab per week or equivalent.

**OT 581**

**Level II Internship I** - Psychosocial Rehabilitation (Prerequisite: completion of all undergraduate coursework or academic graduate course work) Level II fieldwork is designed to provide oppor-
tunities to integrate academically acquired knowledge with Occupational Therapy clinical practice in psychosocial rehabilitation. OT certifi-
cation exam eligibility requires 24 weeks total Level II Internship (minimum), Summer, fol-
lowing the fourth or fifth year of the program, twelve weeks, full time.

**OT 582**

**Level II Internship II** - Physical Rehabilitation (Prerequisite: completion of all undergraduate coursework or academic graduate course work) Level II fieldwork is designed to provide oppor-
tunities to integrate academically acquired knowledge with Occupational Therapy clinical practice in physical rehabilitation. OT certification exam eligibility requires 24 weeks total Level II Intern-
ship (minimum), Summer, following fourth or fifth year of program, twelve weeks, full time.

**OT 583**

**Level II Internship III** - Specialty (optional) (Prerequisites: OT 581, OT 582) Level II field-
work designed to provide opportunities for clini-
cal experience in a specialty area of practice.

Arranged on an availability basis. Fall, following the fifth year of the program, eight to twelve weeks, full time.

**OT 593**

**OT Applied Clinical Research I** (Prerequisites: OT 493, OT 581 or OT 582) This course is designed to promote entry-level research competencies in health care, education, and community settings by engagement in actual research activities that are driven upon and amplified in the research process under the direction of a research advisor. Three hours semi-
nar, advising session or equivalent/week.

**OT 594**

**OT Applied Clinical Research II** (Prerequisite: OT 593) This course is the third and last course in the capstone experience. It involves the completion of a systematic research study that is based on a body of knowledge or theoretical approach, and designed to contribute to the field of occupational therapy. Three hours seminar, advising session or equivalent/week.

**PCPS 501**

**Interdisciplinary Developmental Assessment in Pediatrics** This course will focus on the assessment of infants, young children, and adolescents and their families. This course reflects an integrative curric-
ulum model that incorporates team teaching and faculty practice format whereby students com-
plete actual pediatrics core evaluations under the direct supervision of a qualified practitioner.

**PHYSICAL THERAPY**

**Faculty**

John P. Sanko, Ed.D., PT, Chair
Renée M. Hakim, Ph.D., PT, NCS, tD.P.T. Program Director
Peter M. Leintinger, Ph.D., PT, OCS, CSCS, D.P.T. Program Director
Barbara R. Wagner, M.H.A., D.P.T., PT, Director of Clinical Education
Tracey L. Collins, M.B.A., Ph.D., PT, GCS
Edmund M. Kosmahl, Ed.D., PT
Gary E. Mattingly, Ph.D., PT

**Overview**

The University of Scranton offers the D.P.T. (Doctor of Physical Therapy) program as a first professional, entry-level degree. Qualified candidates will have earned a baccalaureate degree, completed all of the required prereq-
uties, and met the academic and professional behavior standards set forth by the Department of Physical Therapy. The depart-
ment strives to enroll graduate-level students who are academically strong, caring and com-
mitted to the profession of physical therapy. The D.P.T. 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 therapy stu-
dents who meet the changing needs of the individuals who 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. Fol-
lowing completion of all prerequisites and acceptance into the D.P.T. program, course work begins in early June. Four eight week clinical internships occur during the second and third summer sessions and the entire final semester of the program. Internship sites are located primarily in the Middle Atlantic and northeastern regions of the United States, but the department also maintains clinical intern-
ship contracts throughout the country. Visit the Physical Therapy Department online at www.scranton.edu/pt.

A complete description of the D.P.T. cur-
riculum and course descriptions can be found in the Graduate Studies Catalog.

**Essential Functions Required of All Physical Therapy Students**

1. Utilize effective and appropriate verbal, nonverbal and written communication with patients, families, health-care work-
ers and others.
2. Complete appropriate physical therapy procedures used to assess the function of the movement system in a timely man-
er. These include, but are not limited to, exercise, developmental activities, balance train-
ing, gait training, transfer training, func-
tional training, coordination training, positionii ng techniques, self-care activities,
therapeutic modalities and CPR.
3. Apply “Standard Precautions.”
4. Participate in the process of scientific inquiry.
5. Apply teaching/learning theories and methods in varied health-care and commu-

**Admission into the Doctor of Physical Therapy Program**

The Department of Physical Therapy offers multiple pathways for admission into the D.P.T. program. Admission is competitive and limited to 45 qualified applicants each year. Students can enter the program in the follow-

**D.P.T. Guaranteed Admission**

A select group of incoming freshmen who indicate an interest in the Doctor of Physical Therapy program on their applications for admission will be offered “guaranteed admis-

Guaranteed admission is based on the overall strength of the student’s application. Students
who receive guaranteed admission must complete all prerequisite courses with a grade of C or better, carry an overall GPA of 3.0 or higher and complete the required clinical observations as outlined by the Physical Therapy Department. They will be expected to confirm their intention annually and should apply to the College of Graduate and Continuing Education in the fall semester of their senior year by completing a College of Graduate and Continuing Education application. Final acceptance into the D.P.T. program requires approval of the CGCE Dean. Regardless of the student’s undergraduate academic performance, unprofessional behavior may be grounds for cancellation of guaranteed admission.

**D.P.T. Pending Admission and Other University of Scranton Undergraduate Students**

Students with baccalaureate degrees from institutions should submit documented evidence of a minimum of 60 hours of observation time in at least two distinctly different physical therapy settings at the time of their application to the D.P.T. program. Applicants should contact the Physical Therapy Department Chair or Director of Clinical Education for the appropriate form and guidelines as to the type of facilities that are appropriate to meet this requirement.

**Accreditation**

The Physical Therapy program is accredited by the Commission on Accreditation in Physical Therapy Education (CAPTE) of the American Physical Therapy Association (APTA) located at 1111 North Fairfax Street, Alexandria, VA 22314. APTA’s telephone number is 1-800-999-2787 (extension 3245 for the accreditation office). The Web address is www.apta.org.

---

* Advanced Placement credit is only accepted only for these courses.

---

**Undergraduate Majors for the D.P.T.**

Students may select from a variety of undergraduate majors as long as they successfully complete all the prerequisites and meet the minimum grading and GPA standards. Majors such as exercise science and other sciences are already “good fits” in terms of meeting the prerequisites. Regardless of major, students, with the help of their academic advisors, will need to plan carefully the selection of general education core requirements and electives in order to meet the prerequisites in a way that does not significantly add to their credit load.

**Prerequisites**

**A. Courses (must be completed with a grade of C or better)**

In order to remain eligible for admission into the D.P.T. program, all students must repeat any prerequisite until a grade of C or better is attained.

- **Biology (General Biology or Human Anatomy/Physiology) with labs:** two courses, 8 credits minimum
- **General Chemistry with labs:** two courses, 8 credits minimum
- **General Physics with labs:** two courses, 8 credits minimum
- **Mammalian/Human Physiology:** one course, 3 credits minimum
- **General Psychology:** one course, 3 credits minimum
- **Advanced Psychology (Childhood, Adolescence, Aging or Abnormal Psychology):** one course, 3 credits minimum
- **Statistics:** one course, 3 credits minimum
- **Mathematics (at the level of Trigonometry or higher):** one course, 3 credits minimum
- **Computer Competency:** one course, 3 credits minimum
- **Medical or Biomedical Ethics is strongly recommended**

**B. Observation Hours**

Students with baccalaureate degrees from either The University of Scranton or other institutions should submit documented evidence of a minimum of 60 hours of observation time in at least two distinctly different physical therapy settings at the time of their application to the D.P.T. program. Applicants...
A Degree of Distinction

In 2006 the Graduate School, Dexter Hanley College and the Center for Continuing Education merged into one unit – the College of Graduate and Continuing Education – to serve graduate students, undergraduate adult students, and organizations and persons interested in professional development.

Since 1923, The University of Scranton has provided, previously through Dexter Hanley College, quality educational opportunities for adult and returning students. Services are available for part-time and full-time adult students seeking credit certificates, associate’s and bachelor’s degrees, visiting students, senior citizens wishing to attend the University, and those seeking intellectual enrichment.

The University’s graduate offerings, the most comprehensive in Northeastern Pennsylvania, draw students from throughout the United States and from more than 20 foreign countries. Students can pursue graduate degrees and various types of certification in more than 25 fields of study.

Students may also obtain personal and professional enrichment through the Center for Professional Training and Development, which offers on-campus, Web-based and regional programming.
Undergraduate Education for Adult Students

Adult undergraduate learners are a priority for The University of Scranton. As a result, the University provides special advising and other services to these students through the College of Graduate and Continuing Education (CGCE). CGCE is committed to carrying on the Jesuit tradition by offering quality programs, quality services and the opportunity for students to reach their educational goals. The University is dedicated to serving the local community and continually updates its programs and services in response to the community’s ever-changing needs. The College of Graduate and Continuing Education provides admission opportunities, student services and advising to undergraduates in the following categories:

1. Adults who wish to pursue an undergraduate degree
2. Students who want to obtain an associate’s degree or certificate
3. Adults who want to improve their professional competence and/or to prepare themselves for new careers
4. Adults who want to take advantage of educational programs for enrichment
5. Visiting students from other colleges and universities

CGCE is dedicated to helping students succeed by offering scholarship opportunities, life-experience credits, academic and career counseling, and academic support services.

Undergraduate Degree Programs

College of Graduate and Continuing Education students may attend courses offered in the day or at night. Students who can attend courses scheduled for mornings and afternoons or evenings in the following fields:

### Group 1: Degrees Offered during the Day

In general, courses that comprise the major for these degree programs are offered during the daytime only.

#### Bachelor’s Degrees

- Accounting Information Systems
- Biochemistry
- Biology
- Biomanometrics
- Biophysics
- Chemistry
- Chemistry/Business
- Chemistry/Computers
- Communication
- Computer Engineering
- Computer Information Systems
- Computer Science
- Early Childhood Education
- Economics
- Electrical Engineering
- Electronics/Business
- Electronic Commerce
- Elementary Education
- English
- Environmental Science
- Exercise Science
- Finance
- Foreign Languages
- Forensic Chemistry
- Gerontology
- History
- Human Resources Studies
- International Business
- International Language–Business
- International Studies
- Management
- Marketing
- Mathematics
- Media and Information Technology
- Medical Technology
- Military Science
- Neuroscience
- Nursing
- Occupational Therapy
- Operations and Information Management
- Philosophy
- Physics
- Pre-Engineering Program

* Some courses in this major are available evenings.

### Group 2: Degrees Offered Day or Evening

Major, cognate and general education courses for these degrees are available either night or day.

#### Bachelor’s Degrees

- Accounting
- Business Administration
- Community Health Education
- Counseling and Human Services
- Criminal Justice
- Health Administration
- Liberal Studies
- Nursing for the Licensed Practical Nurse (LPN)
- Nursing for the Registered Nurse (RN)

* Some courses in this major are available evenings.

#### Associate’s Degrees

- Associate in Arts
- Business
- Computer Information Systems
- Criminal Justice
- Gerontology
- Health Administration
- Counseling and Human Services
- Political Science
- Sociology

Access Programs

In addition to traditionally paced programs, the Access Programs for undergraduate adults will provide a planned course of study in one of eight areas where courses are arranged at times especially suited to adult students. The curriculum plan will allow adult students to complete a degree efficiently and expeditiously.

Access Programs are available both day and evening in the following fields:

- Accounting
- Business Administration
- Criminal Justice
- Community Health Education
- Counseling and Human Services
- Health Administration
- Liberal Studies
- Nursing for the LPN or RN

### Admission Information

The University of Scranton Admissions Office operates on a rolling admissions plan which processes applications on a continual basis as received. Generally, candidates are informed of the admission decision within three weeks after the completion of their files of supporting credentials.

To complete the application file, the candidate must have the following sent to the CGCE Office of Admissions:

1. A completed application form accompanyed by the $20.00 application fee.
2. An official high school transcript (or Graduation Equivalency Diploma [GED], including scores, when applicable).
3. A personal statement detailing how enrolling at the University will contribute to the individual’s goals.
4. Official transcripts, mailed directly from every college or university attended (if applicable).

Applicants are encouraged to meet with an admissions counselor prior to registration and can make an appointment by contacting the CGCE Admissions Office at (570) 941-7600. In general, advanced standing will be granted for previously completed courses from regionally accredited institutions when they are equivalent or comparable to courses at the University of Scranton.
University, the student received grades of C or higher, and the courses meet requirements for the degree program. If the student changes major at a later date, another review of transfer credits will be made at that time, and the student will be given a written evaluation clearly indicating the transfer credits that apply to the new major. In all cases, for a bachelor's degree, transfer students must earn a minimum of 63 credits at The University of Scranton. Once a transfer student matriculates, the University policy on course transfers applies.

Conditional Admission
A student may be admitted conditionally if official transcripts have not been received in the CGCE Admissions Office before classes begin. The student whose official records have not been received within five weeks after classes have begun will not be permitted to register for a subsequent term.

Upon receipt and evaluation of the official academic transcripts, the CGCE Admissions Office will notify the student regarding acceptance or rejection. The student who is rejected will be permitted to finish the semester if he/she wishes to do so, but will not be allowed to register for subsequent terms. The student who is accepted will be subject to all rules, regulations and policies of the University. Because official academic transcripts are necessary for effective academic advising, the student who enters under the conditional admission policy takes full responsibility for any errors in course selection and for all extra costs involved in making changes in class registrations.

Second Baccalaureate Degree
University of Scranton graduates and persons with good scholastic records and a baccalaureate degree from a regionally accredited institution, who wish to earn a second baccalaureate degree at The University of Scranton, must apply to the College of Graduate and Continuing Education. 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. All prerequisites for major and cognate courses must also be completed.

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.

Certificate Programs
Students wishing to complete a certificate program in the College of Graduate and Continuing Education must meet the requirements specified by the appropriate department.

Self-Improvement
Students who do not plan to work toward a degree or a certificate must also file an application for admission and must arrange for official transcripts to be sent to the CGCE Admissions Office.

Visiting Students
Students matriculated in other colleges or universities who wish to take courses for credit at The University of Scranton should present the written approval of their dean or other authorized administrator for all courses taken at The University of Scranton. The University of Scranton does not guarantee transferability of its courses. Reader courses are not available for visiting students.

Visiting students must complete an application form but are not required to submit transcripts. Visiting students taking more than one course in any semester are required to attend orientation.

Telecourses
Telecourses provide students with an opportunity to study with a more flexible schedule. Students purchase DVDs along with the required textbook(s). Meetings with instructors are reduced from the typical three hours per week to no more than six meetings per semester. These courses are geared to highly motivated students capable of doing independent work. Courses offered vary each semester.

Online Courses
Many courses at the University require that students have access to a computer and the Internet for assignments, research, discussion groups, etc. For information about computer requirements for online courses, see page 68.

Office of Student Services and Advising
In the College of Graduate and Continuing Education, academic advising begins with admission interviews, registration and new-student orientations. Ongoing advising services that support students through their years of study to graduation provide all students, including transfer and evening students, with stability and continuity in their academic planning. Staff advisors are available 12 months a year and maintain day and evening office hours.

The staff in the College of Graduate and Continuing Education, Career Services and the Counseling Center are also available for consultation regarding academic, career and personal issues. The assignment of faculty advisors/mentors is determined by the student's choice of major.

Campus Life
Students should consult the University's Student Handbook for information about such practical matters as I.D. cards, parking permits and opportunities for participation in various aspects of University life. Adult undergraduate student participation in campus governance is provided through Student Council and student representation on the University Council.

Academic Regulations
Adult undergraduate students should consult this catalog for academic regulations common to all undergraduate colleges of the University. They should be aware of the following policies that relate specifically to those enrolled in the College of Graduate and Continuing Education.

Auditors
CGCE students may register as auditors with the approval of the dean. Entry of the audit grade on the transcript assumes satisfactory attendance at class meetings. The student should consult with the instructor as to what constitutes satisfactory attendance. Auditors are not responsible for assigned work, quizzes, or examinations, and they receive no credit for the course. Students not enrolled as auditors who wish to change their status to that of auditor must do so by deadlines specified in the academic calendar on the inside front cover of this catalog. Auditing students pay the regular tuition and fees.

Credit for Academically Relevant Learning
Many students have acquired "experiential learning" outside a formal college or university classroom in jobs, military service or non-accredited institutions. The University provides opportunities for advanced undergraduate students to earn credit for such experiences. A maximum of 30 credits will be awarded for extra-institutional learning, excluding military credit. This includes CLEP, Excelsior College Examination, ACE-approved credit, portfolio credit, and PONSI credit. (Advanced-placement credit is considered separately.)

Students wishing to have this learning assessed for possible credit must document relevant experiences and the knowledge gained from them for departmental review. Faculty evaluators from the appropriate department(s) will evaluate the portfolio and may recommend a credit award for students' learning. For further information, contact a CGCE advisor at (570) 941-7580.

College-Level Examination Program (CLEP)
The College-Level Examination Program has been established to enable students of all ages to earn college credit by examination. Through the CLEP tests, applicants may gain credit in many academic subjects applicable to their degree programs. Individuals who wish to receive information about these examinations should either consult the CGCE Assistant Dean for Student Services and Advising or contact CLEP directly by writing to the Program Director, College-Level Examination Program, College Entrance Examination Board, 660, Princeton, NJ 08541 or sending e-mail to clep@info.collegeboard.org.
Adult Undergraduate Tuition and Fees 2007-08

Full-Time Tuition (12 or more credits) and All Intersession Courses, per credit ................................ $758
Part-Time Tuition (fewer than 12 credits), per credit ............................................................................ $621
University Fee for Full-Time Students, per semester ........................................................... $150
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
Application Fee ............................................................................................................................. $20
Prior-Learning-Portfolio Review Fee, per credit ........................................................................ $30
Credit by Exam, per credit ............................................................................................................. $75
Prerequisite Challenge Exam, per exam ....................................................................................... $15
Nursing Clinical Practicum, per clinical course ............................................................................ $110
Graduation Fee ............................................................................................................................... $225

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

See page 20.

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, including returning the remittance form. 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, including returning the remittance form.

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

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, I, IP, NC, NG, S 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, those who earn a 3.50 or higher semester GPA and 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 indicated 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.

Sequences of Study/Prerequisites

Students enrolled in degree programs in the College of Graduate and Continuing Education are strongly advised to follow the sequence of studies listed for their chosen major as closely as possible. In order that students may be assured of having the adequate background for the successful completion of certain courses, prerequisite courses are sometimes listed. The course descriptions in the earlier pages of this bulletin contain the necessary information on prerequisites.

In some cases practical experience may compensate for the lack of prerequisite courses, but such requests for exceptions require written approval, in advance, from the departmental advisor. Students should also check with their departments for specific scheduling information on course sequences in their major. Since not all required courses are offered each semester, careful planning should be done in advance to assure smooth progress through the degree program.

Readmission

Once accepted into The University of Scranton, a student is expected to maintain continuous enrollment. The dean may approve requests for one, and, on occasion, two consecutive semester leaves of absence. Students who do not attend the University for a semester or more, without an approved leave of absence, may be required to complete a full application for readmission. This may also result in a student’s needing to fulfill new curricular requirements. To apply for readmission, contact the GCCE Office of Student Services and Advising at (570) 941-7580.

Readmission of Dismissed Students

If an adult undergraduate student who has been dismissed from The University of Scranton wishes to apply for readmission to the University, the student 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 dismissal will not present a continuing problem. If a student is dismissed a second time from the University, readmission is not permitted. Students who want to be readmitted after dismissal need to apply to the College of Graduate and Continuing Education directly.

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.

Financial Aid for Adult Undergraduate Students

CGCE 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). The student must also submit signed copies of the tax information for the student and spouse/parent (if required). Priority deadline for incoming students is May 1. Returning students must file by April 15.

University Aid for Adult Undergraduate Students

Accounting Scholarship: The Northeast Chapter of the Pennsylvania Society of Public Accountants has endowed a scholarship fund awarding one limited tuition scholarship each year to an adult undergraduate Accounting major.

The Eugene J. Donahue 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 in the College of Graduate and Continuing Education, and first consideration is given to students residing in Lackawanna County.

The Rev. John J. Fitzpatrick, S.J., Scholarship: This scholarship was awarded to 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 who are enrolled in the College of Graduate and Continuing Education. The scholarship was established through the generosity of Midori Yamanouchi-Rynn, Ph.D., Professor Emerita of Sociology/Criminal Justice.
Full-Time and Part-Time Grants: Full-time and part-time grants are awarded to adult undergraduate students who demonstrate need, academic progress, and enrollment status of at least 6 credits. Awards range from $500 to $6,000 per year.

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 undergraduates enrolled in the College of Graduate and Continuing Education.

The Robert L. McDevitt, K.S.G., Scholarship: This scholarship, established in 1977, provides assistance to qualified and deserving College of Graduate and Continuing Education undergraduate 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.

Newcombe Scholarship for Mature Women: The Charlotte W. Newcombe Foundation provides limited-tuition scholarships for mature women students completing their education in preparation for a second career. These scholarships are available to women who are 25 years of age or older and who have completed at least 60 credits.

New Transfer-Student Scholarship: Transfer students who have completed at least 30 credits at their previous institution and intend to pursue full-time studies at The University of Scranton are eligible to be considered for this award. This is an academic as well as need-based scholarship. The award may be renewed until graduation upon maintenance of required grade-point average.

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 Co. Income from the scholarship is used primarily for part-time, non-traditional students who need financial assistance.

Pakistani M.B.A. Student Fellowship: This fellowship was established by Riaz Hussain, Ph.D., to encourage the recruitment of Pakistani students to The University of Scranton’s M.B.A. program.

The Sanofi Pasteur Scholarship: Scholarships are offered each year to two graduate students with demonstratated financial need who have completed 6 or more credits (including transfer credits). Both full- and part-time students are eligible, as are CGCE Student Government members. Those who are not eligible for this scholarship include students working toward a second degree and University employees with full tuition remission. Grade point average is not a consideration when considering financial need.

The Thomas P. White Scholarship: Mrs. Ilene White 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.

State and Federal Aid
Pennsylvania Higher Education Assistance Agency (PHEAA)

Adult undergraduate students are eligible to apply for PHEAA grants if they are taking at least 6 credits per semester.

Pell Grants
Adult undergraduate students taking at least 3 credits a semester are eligible to apply for federal grants administered under the Pell Grant program.

Federal Stafford Loan
Adult undergraduate students are eligible to apply for Stafford Loans if they are taking at least 6 credits per semester.

RN B.S. in Nursing

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 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 B.S. program, 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 the nursing supervisor.

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

<table>
<thead>
<tr>
<th>First Year</th>
<th>Department and Number</th>
<th>Descriptive Title of Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>COGNATE</td>
<td>CHEM 110–111</td>
<td>Introduction to Chemistry I–II</td>
<td>6</td>
</tr>
<tr>
<td>COGNATE</td>
<td>BIOL 110–111</td>
<td>Structure and Function I–II</td>
<td>6</td>
</tr>
<tr>
<td>GE SPCH–WRTG</td>
<td>COMM 100-WRTG 107</td>
<td>Public Speaking-Composition</td>
<td>6</td>
</tr>
<tr>
<td>GE C/JL</td>
<td>C/JL 102</td>
<td>Computer and Information Literacy</td>
<td>3</td>
</tr>
<tr>
<td>GE PHIL–TRS</td>
<td>PHIL 120</td>
<td>Introduction to Philosophy</td>
<td>3</td>
</tr>
<tr>
<td>GE S/BH</td>
<td>S/BH ELECT</td>
<td>Social/Behavioral Science Elective</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>29</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Second Year</td>
<td>MAJOR</td>
<td>Perspectives in Professional Nursing</td>
<td>3</td>
</tr>
<tr>
<td>MAJOR</td>
<td>NURS 242</td>
<td>Nursing Related to Assess. of Health Patterns</td>
<td>3</td>
</tr>
<tr>
<td>COGNATE</td>
<td>BIO 210</td>
<td>Intro. to Medical Microbiology</td>
<td>3</td>
</tr>
<tr>
<td>COGNATE</td>
<td>NUTR 220</td>
<td>Nutrition</td>
<td>3</td>
</tr>
<tr>
<td>COGNATE</td>
<td>PSYC 210-212</td>
<td>Psychological Statistics/Applied Statistics</td>
<td>3</td>
</tr>
<tr>
<td>GE PHIL–TRS</td>
<td>T/RS 121</td>
<td>Theology I</td>
<td>3</td>
</tr>
<tr>
<td>GE PHIL–TRS</td>
<td>PHIL 210-T/RS 122</td>
<td>Ethics-Theology II</td>
<td>6</td>
</tr>
<tr>
<td>GE HUMN</td>
<td>HUMN ELECT</td>
<td>Humanities Electives</td>
<td>9</td>
</tr>
<tr>
<td>GE S/BH</td>
<td>S/BH ELECT</td>
<td>Social/Behavioral Science Elective</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>36</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Third Year</td>
<td>MAJOR</td>
<td>Nursing Validation Credits</td>
<td>38.5</td>
</tr>
<tr>
<td>MAJOR</td>
<td>NURS</td>
<td>Philosophy or T/R Elective</td>
<td>3</td>
</tr>
<tr>
<td>GE PHIL–TRS</td>
<td>PHIL-7/R ELECT 3</td>
<td>Free Electives</td>
<td>3</td>
</tr>
<tr>
<td>GE ELECT</td>
<td>FREE ELECT</td>
<td>Free Electives</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>47.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fourth Year</td>
<td>MAJOR</td>
<td>Community Health Nursing</td>
<td>3.5</td>
</tr>
<tr>
<td>MAJOR</td>
<td>NURS 471-475</td>
<td>Synth. of Leadership Concepts in Nursing</td>
<td>3</td>
</tr>
<tr>
<td>MAJOR</td>
<td>NURS 476</td>
<td>Nursing Elective</td>
<td>3</td>
</tr>
<tr>
<td>MAJOR</td>
<td>NURS 493</td>
<td>Research in Nursing</td>
<td>3</td>
</tr>
<tr>
<td>GE HUMN</td>
<td>HUMN ELECT</td>
<td>Humanities Elective</td>
<td>3</td>
</tr>
<tr>
<td>GE ELECT</td>
<td>FREE ELECT</td>
<td>Free Elective</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>18.5</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| TOTAL: 131 CREDITS

1 Full or spring
2 Department recommendation: PSYC 110, PSYC 221 or PSYC 225
3 Portfolio option available
4 Clinical Practicum Fee
5 Optional B.S./M.S. course substitution
6 Department recommendation: PHIL 212

+ Footnotes
Admissions Procedures

1. Submit a University of Scranton Application. Information is available by calling (570) 941-7600.

2. Submit a letter of recommendation from an employer within the last five years. If you are a recent LPN graduate, these references could be a faculty member from your institution.

3. Submit a copy of a current LPN license or a recent copy of your institution.

4. Have official transcripts of your LPN degree, 3.5 of which may be earned by verifying current employment or graduation through an original RN program less than 10 years prior to acceptance. The 3.5 validation credits are posted on the student’s official transcript.

5. Register for ACE II exams. Additional information is available from Dr. Hudacek, Director of the RN Track.

6. College of Graduate and Continuing Education students will meet the service-learning requirements by completing major courses that have a service-learning component.

Students who have earned an overall GPA of 3.0 or higher may choose an accelerated track toward the baccalaureate degree is suggested prior to enrollment in NURS 473.

3. 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.

4. Before students begin clinical work, they must submit copies of their professional malpractice-liability insurance policy, evidence of current licensure and CPR certification.

5. 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 473.

Advanced Placement Exams

Successful completion of the ACE II exams, offered each summer, is required for continued study in the LPN to B.S. program. After acceptance, LPNs meet with a nursing advisor to plan their curriculum.

If the student successfully completes the optional ACE II (Medical/Surgical and Obstetrics/Pediatrics), the following courses will be waived:

Medical/Surgical Nursing (Theory) – includes Foundations of Nursing
NURS 251: Nursing Related to Health Patterns; NURS 350, 371, 450:
Nursing Care of the Adult I, II, III ......11 cr.

OB/Peds Nursing (Theory)
NURS 373: Nursing Care of the Childbearing Family ............3 cr.
NURS 452: Nursing Care of Children and Adolescents .............3 cr.

Clinical Skills Challenge exam
(On-campus lab testing in foundations of nursing, mathematics, and obstetric/ pediatric and medical/surgical skills) ......13 cr.

TOTAL .......................... 30 cr.

Note: If the required score on the ACE II exams is not achieved, the student is required to enroll in the corresponding course(s).

LPN to B.S. IN NURSING

Sharon Hudacek, Ed.D., Director, LPN Track

Admissions Procedures

1. Submit a University of Scranton Application. Information is available by calling (570) 941-7600.

2. Submit a letter of recommendation from an employer within the last five years. If you are a recent LPN graduate, these references could be a faculty member from your institution.

3. Submit a copy of a current LPN license to the CGCE Admissions Office.

4. Have official transcripts of your LPN program, high school and all previous college credits sent to the Admissions Office, The University of Scranton, Scranton, PA 18510.

5. Register for ACE II exams.

Note: Once accepted, LPNs are subject to all policies for nursing students as indicated in the University’s Nursing Student Handbook.

Advanced Placement Exams

Successful completion of the ACE II exams, offered each summer, is required for continued study in the LPN to B.S. program. After acceptance, LPNs meet with a nursing advisor to plan their curriculum.

If the student successfully completes the optional ACE II (Medical/Surgical and Obstetrics/Pediatrics), the following courses will be waived:

Medical/Surgical Nursing (Theory) – includes Foundations of Nursing
NURS 251: Nursing Related to Health Patterns; NURS 350, 371, 450:
Nursing Care of the Adult I, II, III ......11 cr.

OB/Peds Nursing (Theory)
NURS 373: Nursing Care of the Childbearing Family .......3 cr.
NURS 452: Nursing Care of Children and Adolescents .........3 cr.

Clinical Skills Challenge exam
(On-campus lab testing in foundations of nursing, mathematics, and obstetric/ pediatric and medical/surgical skills) ......13 cr.

TOTAL .......................... 30 cr.

Note: If the required score on the ACE II exams is not achieved, the student is required to enroll in the corresponding course(s).

LPN to B.S. in Nursing Curriculum

<table>
<thead>
<tr>
<th>Department and Number</th>
<th>Descriptive Title of Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>GE SKILLS WRTG 107</td>
<td>Composition</td>
<td>3</td>
</tr>
<tr>
<td>GE SKILLS C/IL 102/102L</td>
<td>Computing and Information Literacy (w/Lab)</td>
<td>4</td>
</tr>
<tr>
<td>MAJOR NURS 241</td>
<td>Perspectives in Professional Nursing</td>
<td>3</td>
</tr>
<tr>
<td>MAJOR NURS 251</td>
<td>Nursing Related to Health Patterns</td>
<td>2</td>
</tr>
<tr>
<td>MAJOR NURS 350</td>
<td>Mental Health Nursing (w/Lab)</td>
<td>3.5</td>
</tr>
<tr>
<td>MAJOR NURS 352/352L</td>
<td>Nurs./Asses. Of Health Patterns (w/Lab)</td>
<td>3</td>
</tr>
<tr>
<td>MAJOR NURS 626</td>
<td>Nursing Care of the Adult I</td>
<td>3</td>
</tr>
<tr>
<td>MAJOR NURS 630</td>
<td>Nursing Care of the Adult II</td>
<td>3</td>
</tr>
<tr>
<td>MAJOR NURS 373</td>
<td>Nursing Care of Childbearing Family</td>
<td>3</td>
</tr>
<tr>
<td>COGNATE BOL 110–111</td>
<td>Structure and Function I–II (w/Lab)</td>
<td>8</td>
</tr>
<tr>
<td>GE HUMN HUMN ELECT</td>
<td>Humanities Elective1</td>
<td>6</td>
</tr>
<tr>
<td>GE SKILLS COMM 100</td>
<td>Public Speaking</td>
<td>3</td>
</tr>
<tr>
<td>GE S/BH PSYC 110</td>
<td>Introduction to Psychology</td>
<td>3</td>
</tr>
<tr>
<td>MAJOR NURS 210</td>
<td>Intro. to Chemistry I–II</td>
<td>6</td>
</tr>
<tr>
<td>COGNATE BIOL 110–111</td>
<td>Intro. to Microbiology (w/Lab)</td>
<td>3</td>
</tr>
<tr>
<td>MAJOR NURS 225</td>
<td>Nutrition for Health Professions</td>
<td>3</td>
</tr>
<tr>
<td>MAJOR NURS 630</td>
<td>Pharmacology I</td>
<td>1</td>
</tr>
<tr>
<td>MAJOR NURS 360</td>
<td>Pharmacology II</td>
<td>1</td>
</tr>
<tr>
<td>MAJOR NURS 361</td>
<td>Pharmacology III</td>
<td>1</td>
</tr>
<tr>
<td>MAJOR NURS 450</td>
<td>Nursing Care of the Adult III</td>
<td>3</td>
</tr>
<tr>
<td>MAJOR NURS 452</td>
<td>Nursing Care of Children and Adolescents</td>
<td>3</td>
</tr>
<tr>
<td>MAJOR NURS 493</td>
<td>Research in Nursing</td>
<td>3</td>
</tr>
<tr>
<td>MAJOR NURS 471/471L</td>
<td>Community Health Nursing (w/Lab)</td>
<td>3.5</td>
</tr>
<tr>
<td>GE PHIL-T/RS T/RS 121–122</td>
<td>Intro. to Philosophy–Ethics</td>
<td>6</td>
</tr>
<tr>
<td>GE PHIL-T/RS PHIL 120–210</td>
<td>Community Health Nursing (w/Lab)</td>
<td>3.5</td>
</tr>
<tr>
<td>MAJOR NURS 493</td>
<td>Community Health Nursing (w/Lab)</td>
<td>3.5</td>
</tr>
<tr>
<td>MAJOR NURS 471/471L</td>
<td>Community Health Nursing (w/Lab)</td>
<td>3.5</td>
</tr>
<tr>
<td>GE PHIL-T/RS T/RS 121–122</td>
<td>Intro. to Philosophy–Ethics</td>
<td>6</td>
</tr>
<tr>
<td>GE HUMN HUMN ELECT</td>
<td>Humanities Elective1</td>
<td>3</td>
</tr>
<tr>
<td>MAJOR NURS 473/473L</td>
<td>Synth. of Leadership Conc. in Nurs. (w/Lab)</td>
<td>3</td>
</tr>
<tr>
<td>MAJOR NURS 475/475L</td>
<td>Critical Care Nursing (w/Lab)</td>
<td>3</td>
</tr>
<tr>
<td>MAJOR NURS 475/475L</td>
<td>Critical Care Nursing (w/Lab)</td>
<td>3</td>
</tr>
<tr>
<td>GE PHIL-T/RS PHIL-T/RS ELECT</td>
<td>Philosophy or T/RS Elective</td>
<td>3</td>
</tr>
<tr>
<td>GE ELECT FREE ELECT</td>
<td>Free Electives1</td>
<td>9</td>
</tr>
<tr>
<td>TOTAL: 131 CREDITS</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1 Course will be waived if student passes the ACE II exam.

2 Students must take 6 credits in one area: History (CH), Literature (CL) or Foreign Language (CF), plus 6 additional credits from any of the remaining areas, but no more than 3 credits from Art/Music/Theatre (CA).

3 The department recommends PSYC 221: Childbirth and Adolescence or PSYC 225: Abnormal Psychology

4 Pre-Chemistry course available

5 Other: NCLEX Review Course

18

TOTAL: 131 CREDITS
**B.S. IN LIBERAL STUDIES**

The Liberal Studies major is a highly individualized program offered exclusively through the College of Graduate and Continuing Education. 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.

**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.

**ASSOCIATE IN ARTS**

The Associate in Arts is often classified as the Liberal Arts* “transfer degree” in that it provides the student with a broad exposure to the arts and sciences.

**B.S. in Liberal Studies Curriculum**

<table>
<thead>
<tr>
<th>General Education</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Natural Science</td>
<td>6</td>
</tr>
<tr>
<td>Quantitative Reasoning*</td>
<td>3</td>
</tr>
<tr>
<td>Social/Behavioral Sciences</td>
<td>6</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Skills Acquisition</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>WRTG 107</td>
<td>3</td>
</tr>
<tr>
<td>COMM 100</td>
<td>3</td>
</tr>
<tr>
<td>C/IL 102 and C/IL 102L</td>
<td>2+</td>
</tr>
<tr>
<td>Humanities*</td>
<td>12</td>
</tr>
</tbody>
</table>

| Philosophy and Theology/Religious Studies | Credits |
| PHIL 120 | 3 |
| PHIL 210 | 3 |
| T/RS 121 | 3 |
| T/RS 122 | 3 |
| PHIL-T/RS ELECT | 3 |

General Education Electives

<table>
<thead>
<tr>
<th>Concentrations</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student may complete three or four concentrations, having no fewer than 1.5 credits and no more than 24 credits per concentration</td>
<td>63</td>
</tr>
</tbody>
</table>

**TOTAL: 126 CREDITS**

* If placement testing indicates a need for MATH 005, it will be placed in the free elective area.
* 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.

Each candidate for the degree must 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 Science Curriculum**

<table>
<thead>
<tr>
<th>Department and Number</th>
<th>Descriptive Title of Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>GE QUAN/ELECT</td>
<td>MATH 106–107</td>
<td>6</td>
</tr>
<tr>
<td>GE ELECT</td>
<td>ELEC</td>
<td>3</td>
</tr>
<tr>
<td>GE S/BH</td>
<td>ECO 153–154</td>
<td>6</td>
</tr>
<tr>
<td>GE WRTG</td>
<td>WRTG 107</td>
<td>3</td>
</tr>
<tr>
<td>GE SPCH</td>
<td>COMM 100</td>
<td>3</td>
</tr>
<tr>
<td>GE C/IL</td>
<td>C/IL 104</td>
<td>3</td>
</tr>
<tr>
<td>GE HUMN</td>
<td>HUMN ELECT*</td>
<td>9</td>
</tr>
<tr>
<td>GE PHIL-T/RS</td>
<td>PHIL 120</td>
<td>3</td>
</tr>
<tr>
<td>GE PHIL-T/RS</td>
<td>T/RS 121</td>
<td>3</td>
</tr>
<tr>
<td>GE PHIL-T/RS</td>
<td>PHIL 210 T/RS 122</td>
<td>3</td>
</tr>
<tr>
<td>GE S/BH</td>
<td>S/BH ELECT</td>
<td>9</td>
</tr>
<tr>
<td>GE NSCI</td>
<td>NSCI ELECT</td>
<td>9</td>
</tr>
<tr>
<td>Major/Cognates</td>
<td>Humanities/Major Electives</td>
<td>24</td>
</tr>
</tbody>
</table>

**TOTAL: 60 CREDITS**

* Liberal Arts includes humanities, social/behavioral sciences, philosophy, theology, and natural sciences/mathematics.

---

**ASSOCIATE IN SCIENCE: CAREER-RELATED FIELD**

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**

<table>
<thead>
<tr>
<th>Department and Number</th>
<th>Descriptive Title of Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>GE QUAN/ELECT</td>
<td>MATH 106–107</td>
<td>6</td>
</tr>
<tr>
<td>GE ELECT</td>
<td>ELEC</td>
<td>3</td>
</tr>
<tr>
<td>GE S/BH</td>
<td>ECO 153–154</td>
<td>6</td>
</tr>
<tr>
<td>GE WRTG</td>
<td>WRTG 107</td>
<td>3</td>
</tr>
<tr>
<td>GE SPCH</td>
<td>COMM 100</td>
<td>3</td>
</tr>
<tr>
<td>GE C/IL</td>
<td>C/IL 104</td>
<td>3</td>
</tr>
<tr>
<td>GE HUMN</td>
<td>HUMN ELECT</td>
<td>9</td>
</tr>
<tr>
<td>GE PHIL-T/RS</td>
<td>PHIL 120</td>
<td>3</td>
</tr>
<tr>
<td>GE PHIL-T/RS</td>
<td>T/RS 121</td>
<td>3</td>
</tr>
<tr>
<td>GE PHIL-T/RS</td>
<td>PHIL 210 T/RS 122</td>
<td>3</td>
</tr>
<tr>
<td>Major/Cognates</td>
<td>Introduction to Business</td>
<td>3</td>
</tr>
<tr>
<td>MGT 161</td>
<td>Introduction to Business</td>
<td>3</td>
</tr>
<tr>
<td>ACC 253–254</td>
<td>Financial–Managerial Accounting</td>
<td>6</td>
</tr>
<tr>
<td>STAT 251–252</td>
<td>Statistics for Business I–II</td>
<td>6</td>
</tr>
<tr>
<td>MGT 251</td>
<td>Legal Environment of Business</td>
<td>3</td>
</tr>
</tbody>
</table>

**TOTAL: 60 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.

**Associate in Science: Computer Engineering Curriculum**

<table>
<thead>
<tr>
<th>Department and Number</th>
<th>Descriptive Title of Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>GE SPCH–WRTG</td>
<td>MATH 103–114</td>
<td>8</td>
</tr>
<tr>
<td>GE C/IL</td>
<td>MATH 142</td>
<td>4</td>
</tr>
<tr>
<td>GE PHIL-T/RS</td>
<td>MATH 221–222</td>
<td>8</td>
</tr>
<tr>
<td>GE HUMN</td>
<td>CMPS 154</td>
<td>3</td>
</tr>
<tr>
<td>GE S/BH</td>
<td>CMPS 144</td>
<td>4</td>
</tr>
<tr>
<td>GE NSCI</td>
<td>CMPS 240</td>
<td>3</td>
</tr>
<tr>
<td>Major/Cognates</td>
<td>CMPS 250</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>ENGR 250</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>E/CE 240</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>E/CE 340</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>EE 241</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>EE 243L</td>
<td>2</td>
</tr>
</tbody>
</table>

**TOTAL: 90 CREDITS**

1. Math placement testing may determine additional math prerequisites in addition to the math specified for this degree program.
### Associate in Science: Computer Information Systems Curriculum

<table>
<thead>
<tr>
<th>Department and Number</th>
<th>Descriptive Title of Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>GE/IL 102</td>
<td>Computer and Information Literacy</td>
<td>3</td>
</tr>
<tr>
<td>GE/IL 142</td>
<td>Discrete Structures</td>
<td>4</td>
</tr>
<tr>
<td>GE ECO 153</td>
<td>Principles of Microeconomics</td>
<td>3</td>
</tr>
<tr>
<td>GE SPCH–WRTG 107</td>
<td>Public Speaking–Composition</td>
<td>6</td>
</tr>
<tr>
<td>GE HUMN</td>
<td>Humanities Electives</td>
<td>9</td>
</tr>
<tr>
<td>GE PHIL-T/RS 121</td>
<td>Introduction to Philosophy–Theology I</td>
<td>6</td>
</tr>
<tr>
<td>GE PHIL-T/RS 122</td>
<td>Ethics OR Theology II</td>
<td>3</td>
</tr>
<tr>
<td>GE ELECT</td>
<td>Free Elective</td>
<td>6</td>
</tr>
<tr>
<td>CMS 134, 144</td>
<td>Computer Science I, II</td>
<td>7</td>
</tr>
<tr>
<td>MATH 204 or STAT 251</td>
<td>Special Topics of Statistics OR Stats for Business I</td>
<td>3</td>
</tr>
<tr>
<td>CMS 240</td>
<td>Data Structures</td>
<td>3</td>
</tr>
<tr>
<td>CMS 250</td>
<td>Machine Org &amp; Assembly Lang Programming</td>
<td>3</td>
</tr>
<tr>
<td>CMS 399</td>
<td>Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>CMS 340</td>
<td>File Processing</td>
<td>3</td>
</tr>
</tbody>
</table>

**Total:** 63 Credits

1. Math placement testing may determine additional math prerequisites in addition to the math specified for this degree program.
2. ECO 154 is recommended.

### Associate in Science: Criminal Justice Curriculum

<table>
<thead>
<tr>
<th>Department and Number</th>
<th>Descriptive Title of Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>GE NSCI PHYS 107</td>
<td>&quot;Hands On&quot; Physics</td>
<td>3</td>
</tr>
<tr>
<td>GE NSCI ELEC</td>
<td>Natural Science Elective</td>
<td>3</td>
</tr>
<tr>
<td>GE SOCI 110</td>
<td>Introduction to Sociology</td>
<td>3</td>
</tr>
<tr>
<td>GE PSYC 110</td>
<td>Fundamentals of Psychology</td>
<td>3</td>
</tr>
<tr>
<td>GE PSYR 131 or SOCI 112</td>
<td>American Nat’l Gov’t II OR Social Problems</td>
<td>3</td>
</tr>
<tr>
<td>GE SPCH–WRTG 107</td>
<td>Public Speaking–Composition</td>
<td>6</td>
</tr>
<tr>
<td>GE/IL 102</td>
<td>Computer and Information Literacy</td>
<td>3</td>
</tr>
<tr>
<td>GE HUMN HUMN ELECT</td>
<td>Humanities Electives</td>
<td>9</td>
</tr>
<tr>
<td>GE PHIL-T/RS 121</td>
<td>Introduction to Philosophy–Theology I</td>
<td>6</td>
</tr>
<tr>
<td>GE PHIL-T/RS 122</td>
<td>Ethics OR Theology II</td>
<td>3</td>
</tr>
<tr>
<td>GE ELECT</td>
<td>Free Elective</td>
<td>3</td>
</tr>
<tr>
<td>CJ 110</td>
<td>Introduction to Criminal Justice</td>
<td>3</td>
</tr>
<tr>
<td>S/CJ 210</td>
<td>Law and Society</td>
<td>3</td>
</tr>
<tr>
<td>S/CJ 212</td>
<td>Criminological Research</td>
<td>3</td>
</tr>
<tr>
<td>S/CJ 213</td>
<td>Criminology</td>
<td>3</td>
</tr>
<tr>
<td>S/CJ 306</td>
<td>Major Electives</td>
<td>6</td>
</tr>
</tbody>
</table>

**Total:** 63 Credits

1. Recommended courses.
2. This could also be used for writing-intensive and/or cultural-diversity credit.

### Associate in Science: Counseling and Human Services Curriculum

<table>
<thead>
<tr>
<th>Department and Number</th>
<th>Descriptive Title of Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>GE SPCH–WRTG 107</td>
<td>Public Speaking–Composition</td>
<td>6</td>
</tr>
<tr>
<td>GE/IL 102</td>
<td>Computer and Information Literacy</td>
<td>3</td>
</tr>
<tr>
<td>GE HUMN</td>
<td>Humanities Electives</td>
<td>9</td>
</tr>
<tr>
<td>GE PHIL-T/RS 121</td>
<td>Introduction to Philosophy–Theology I</td>
<td>6</td>
</tr>
<tr>
<td>GE PHIL-T/RS 122</td>
<td>Ethics OR Theology II</td>
<td>3</td>
</tr>
<tr>
<td>GE QUAN–NSCI ELECT</td>
<td>Quantitative–Natural Science Electives</td>
<td>6</td>
</tr>
<tr>
<td>GE ELECT</td>
<td>Free Elective</td>
<td>6</td>
</tr>
<tr>
<td>CHS 111</td>
<td>Introduction to Human Adjustment</td>
<td>3</td>
</tr>
<tr>
<td>CHS 112</td>
<td>Human Services Systems</td>
<td>3</td>
</tr>
<tr>
<td>CHS 241</td>
<td>Case Management &amp; Interviewing</td>
<td>3</td>
</tr>
<tr>
<td>CHS 242</td>
<td>Counseling Theories</td>
<td>3</td>
</tr>
<tr>
<td>CHS ELECT</td>
<td>CHS Elective</td>
<td>3</td>
</tr>
<tr>
<td>CELECT</td>
<td>Cognate Electives</td>
<td>6</td>
</tr>
</tbody>
</table>

**Total:** 60 Credits

CGCE students will meet the service-learning requirement by completing major courses that have a service-learning component. They will not be required to complete additional service-learning hours.

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 a 2.5 G.P.A. in the major and a 2.0 in the cognate courses.

### Associate in Science: Electrical Engineering Curriculum

<table>
<thead>
<tr>
<th>Department and Number</th>
<th>Descriptive Title of Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>GE SPCH–WRTG 107</td>
<td>Public Speaking–Composition</td>
<td>6</td>
</tr>
<tr>
<td>GE/IL 102</td>
<td>Computer and Information Literacy</td>
<td>3</td>
</tr>
<tr>
<td>GE PHIL-T/RS 121</td>
<td>Introduction to Philosophy–Theology I</td>
<td>6</td>
</tr>
<tr>
<td>GE HUMN HUMN ELECT</td>
<td>Humanities Elective</td>
<td>3</td>
</tr>
<tr>
<td>GE SOCI 110</td>
<td>Social/Behavioral Elective</td>
<td>3</td>
</tr>
<tr>
<td>PHYS 140–141</td>
<td>Elements of Physics I–II</td>
<td>8</td>
</tr>
<tr>
<td>PHYS 270</td>
<td>Elements of Modern Physics</td>
<td>4</td>
</tr>
<tr>
<td>MATH 103–114</td>
<td>Pre-Calculus–Analysis I</td>
<td>8</td>
</tr>
<tr>
<td>MATH 221–222</td>
<td>Analysis II–III</td>
<td>8</td>
</tr>
<tr>
<td>CMS 134</td>
<td>Computer Science I</td>
<td>3</td>
</tr>
<tr>
<td>ENGR 250–252</td>
<td>Statics–Solid State Materials</td>
<td>6</td>
</tr>
<tr>
<td>ENGR 253–254</td>
<td>Introduction to CAD–3D CAD</td>
<td>2</td>
</tr>
<tr>
<td>EE 240</td>
<td>Introduction to Digital Circuits</td>
<td>3</td>
</tr>
<tr>
<td>EE 241</td>
<td>Circuit Analysis</td>
<td>4</td>
</tr>
<tr>
<td>EE 343</td>
<td>Electronic Circuits I</td>
<td>3</td>
</tr>
<tr>
<td>EE 243L</td>
<td>Digital-System Design Lab</td>
<td>2</td>
</tr>
</tbody>
</table>

**Total:** 72 Credits

1. Math placement testing may determine additional math prerequisites in addition to the math specified for this degree program.
### Associate in Science: Gerontology Curriculum

<table>
<thead>
<tr>
<th>Department and Number</th>
<th>Descriptive Title of Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>GE NSCI CHEM 100</td>
<td>Elements of Chemistry</td>
<td>3</td>
</tr>
<tr>
<td>GE NSCI NSCI ELECT</td>
<td>Natural Science Elective</td>
<td>3</td>
</tr>
<tr>
<td>GE S/BH SOC 110</td>
<td>Introduction to Sociology</td>
<td>3</td>
</tr>
<tr>
<td>GE S/BH PSYC 110</td>
<td>Fundamentals of Psychology</td>
<td>3</td>
</tr>
<tr>
<td>GE S/BH PSYC 222 or SOC 112</td>
<td>Adulthood and Aging OR Social Problems</td>
<td>3</td>
</tr>
<tr>
<td>GE SPCH–WRTG COMM100–WRTG 107</td>
<td>Public Speaking–Composition</td>
<td>6</td>
</tr>
<tr>
<td>C/IL 102</td>
<td>Computer and Information Literacy</td>
<td>3</td>
</tr>
<tr>
<td>GE HUMN HUMN ELECT</td>
<td>Humanities Electives</td>
<td>9</td>
</tr>
<tr>
<td>GE PHIL-T/RS PHIL 120–T/RS 121</td>
<td>Introduction to Philosophy–Theology I</td>
<td>6</td>
</tr>
<tr>
<td>GE PHIL-T/RS PHIL 210 or T/RS 122</td>
<td>Ethics OR Theology II</td>
<td>3</td>
</tr>
<tr>
<td>GE ELECT FREE ELECT</td>
<td>Free Elective</td>
<td>6</td>
</tr>
<tr>
<td>MAJOR/Cognate GERO 110</td>
<td>Introduction to Gerontology</td>
<td>3</td>
</tr>
<tr>
<td>GERO 230</td>
<td>Social Policy and Aging</td>
<td>3</td>
</tr>
<tr>
<td>GERO 232</td>
<td>Aging and Death</td>
<td>3</td>
</tr>
<tr>
<td>SOC 211</td>
<td>Methods of Social Research</td>
<td>3</td>
</tr>
<tr>
<td>GERO ELECT</td>
<td>Gerontology Electives</td>
<td>6</td>
</tr>
<tr>
<td>TOTAL:</td>
<td></td>
<td>63 CREDITS</td>
</tr>
</tbody>
</table>

1 Recommended courses.

2 This could also be used for writing-intensive and/or cultural-diversity credit.

### Associate in Science: Human Resources Studies Curriculum

<table>
<thead>
<tr>
<th>Department and Number</th>
<th>Descriptive Title of Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>GE SPCH–WRTG COMM 100–WRTG 107</td>
<td>Public Speaking–Composition</td>
<td>6</td>
</tr>
<tr>
<td>GE C/IL</td>
<td>Computer and Information Literacy</td>
<td>3</td>
</tr>
<tr>
<td>GE HUMN HUMN ELECT</td>
<td>Humanities Electives</td>
<td>9</td>
</tr>
<tr>
<td>GE PHIL-T/RS PHIL 120–T/RS 121</td>
<td>Introduction to Philosophy–Theology I</td>
<td>6</td>
</tr>
<tr>
<td>GE PHIL-T/RS PHIL 210 or T/RS 122</td>
<td>Ethics OR Theology II</td>
<td>3</td>
</tr>
<tr>
<td>MAJOR/Cognate HRS 111</td>
<td>Macro Human Resources</td>
<td>3</td>
</tr>
<tr>
<td>MAJOR/Cognate HRS 112</td>
<td>Micro Human Resources</td>
<td>3</td>
</tr>
<tr>
<td>MAJOR/Cognate HRS 251</td>
<td>Performance Appraisal</td>
<td>3</td>
</tr>
<tr>
<td>MAJOR/Cognate HRS 252</td>
<td>Workforce Education &amp; Training</td>
<td>3</td>
</tr>
<tr>
<td>MAJOR/Cognate HRS 340</td>
<td>Compensation and Benefits</td>
<td>3</td>
</tr>
<tr>
<td>MAJOR/Cognate HRS 351</td>
<td>Recruitment, Selection &amp; Staffing</td>
<td>3</td>
</tr>
<tr>
<td>MAJOR/Cognate HRS ELECT</td>
<td>HRS Elective</td>
<td>3</td>
</tr>
<tr>
<td>COGNATE MGT 351</td>
<td>Principles of Management I</td>
<td>3</td>
</tr>
<tr>
<td>TOTAL:</td>
<td></td>
<td>60 CREDITS</td>
</tr>
</tbody>
</table>

1 Service-learning course.

2 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.

### Associate in Science: Health Administration Curriculum

<table>
<thead>
<tr>
<th>Department and Number</th>
<th>Descriptive Title of Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>GE SPCH–WRTG COMM 100–WRTG 107</td>
<td>Public Speaking–Composition</td>
<td>6</td>
</tr>
<tr>
<td>C/IL 102</td>
<td>Computer and Information Literacy</td>
<td>3</td>
</tr>
<tr>
<td>HUMN ELECT</td>
<td>Humanities Electives</td>
<td>9</td>
</tr>
<tr>
<td>PHIL-T/RS PHIL 120–T/RS 121</td>
<td>Introduction to Philosophy–Theology I</td>
<td>6</td>
</tr>
<tr>
<td>PHIL-T/RS PHIL 210–T/RS 122</td>
<td>Ethics OR Theology II</td>
<td>3</td>
</tr>
<tr>
<td>FREE ELECT</td>
<td>Free Elective</td>
<td>6</td>
</tr>
<tr>
<td>MAJOR/Cognate HADM 111</td>
<td>Introduction to Health Administration</td>
<td>3</td>
</tr>
<tr>
<td>HADM 112</td>
<td>Health Systems</td>
<td>3</td>
</tr>
<tr>
<td>HADM 211</td>
<td>Health Administration</td>
<td>3</td>
</tr>
<tr>
<td>HADM 312</td>
<td>Health Finance</td>
<td>3</td>
</tr>
<tr>
<td>HADM 315</td>
<td>Cultural Diversity &amp; Health Admin.</td>
<td>3</td>
</tr>
<tr>
<td>ACC 253</td>
<td>Financial Accounting</td>
<td>3</td>
</tr>
<tr>
<td>MGT 251</td>
<td>Legal Environment of Business</td>
<td>3</td>
</tr>
<tr>
<td>ELECT</td>
<td>Cognate Electives</td>
<td>6</td>
</tr>
<tr>
<td>TOTAL:</td>
<td></td>
<td>60 CREDITS</td>
</tr>
</tbody>
</table>

1 Service-learning course.

2 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.

### Associate in Science: Political Science Curriculum

To earn the Associate of Science degree in Political Science the student must successfully complete 60 semester hours of credit. Of these, 48 credits must be earned in the liberal arts, according to a prescribed plan covering the humanities, philosophy, theology/religious studies, social/behavioral sciences, and natural sciences/mathematics. Twelve additional credits must be earned in the major field. The remaining 6 semester hours are allotted to free electives in either the area of specialization or any other field.

<table>
<thead>
<tr>
<th>Department and Number</th>
<th>Descriptive Title of Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>GE SPCH–WRTG COMM 100–WRTG 107</td>
<td>Public Speaking–Composition</td>
<td>6</td>
</tr>
<tr>
<td>C/IL 102</td>
<td>Computer and Information Literacy</td>
<td>3</td>
</tr>
<tr>
<td>NSCI–QUAN ELECT</td>
<td>Natural Science–Math Electives</td>
<td>6</td>
</tr>
<tr>
<td>PHIL-T/RS PHIL 120–T/RS 121</td>
<td>Introduction to Philosophy–Theology I</td>
<td>6</td>
</tr>
<tr>
<td>PHIL-T/RS PHIL 210–T/RS 122</td>
<td>Ethics OR Theology II</td>
<td>3</td>
</tr>
<tr>
<td>S/BH ELECT</td>
<td>Social/Behavioral Electives</td>
<td>9</td>
</tr>
<tr>
<td>HUMN ELECT</td>
<td>Humanities Electives</td>
<td>9</td>
</tr>
<tr>
<td>ELECT</td>
<td>Free Electives</td>
<td>6</td>
</tr>
<tr>
<td>MAJOR/Ps 130–131</td>
<td>American National Government I–II</td>
<td>6</td>
</tr>
<tr>
<td>Ps ELECT</td>
<td>Political Science Electives</td>
<td>6</td>
</tr>
<tr>
<td>TOTAL:</td>
<td></td>
<td>60 CREDITS</td>
</tr>
</tbody>
</table>

CGCE students will meet the service-learning requirement by completing major courses that have a service-learning component. They will not be required to complete additional service-learning hours.

Note: Students who complete the A.S. in Health Administration and wish to continue toward the B.S. in Health Administration must have attained a 2.5 G.P.A. in the major.
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. Students enroll in the undergraduate certificate programs with a variety of educational backgrounds ranging from having completed no college work to having earned a degree.

The courses a certificate student takes are part of the regular curriculum of the University. With the exception of Forensic Health, 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 course and must successfully complete any other requirements as stipulated for a specific certificate program. Generally, no more than 6 credits may be transferred into the certificate program.

Application to a certificate program is made through the College of Graduate and Continuing Education Admissions Office. After a student's application is approved, the student is accepted into the program and may then register. A student is responsible for confering with an advisor before registering and as needed in the course of earning the certificate.

In certain certificate programs, the required courses may be waived on the basis of prior experience. Certificates available include Advertising/Public Relations, Computer Information Systems, Forensic Health, Gerontology, Health Administration, Human Resources Studies. The Business/Management certificate programs are Level I: Business, Level II: Accounting, and Personnel Management.

Students enrolled in a 24-credit certificate program, taking at least 6 credits per semester, may be eligible for financial aid. The Financial Aid Office should be contacted for further details.

Certificate in Advertising/Public Relations (24 credits)*

A program designed for adults who are seeking entry-level or advancement opportunities in advertising, promotion and public relations. Students with life experience in advertising, promotion or public relations may wish to take the more advanced courses. An advisor should be consulted before doing so.

Required Courses

- COMM 120 Mass Communication
- COMM 224 Newswriting (or COMM 324: Computer-assisted Reporting)
- COMM 225 Advertising (or COMM 325: Advertising Copywriting)
- COMM 226 Strategic Writing for Public Relations (or COMM 227: Contemporary Public Relations)

Elective Courses (select four)

- COMM 110 Interpersonal Communication
- COMM 222 Television Production
- COMM 227 Contemporary Public Relations
- COMM 311 Political Communication
- COMM 312 Organizational Communication
- COMM 314 Legal Communication
- COMM 316 Communication Ethics
- COMM 323 Television Journalism
- COMM 324 Computer-assisted Reporting
- COMM 325 Advertising Copywriting
- COMM 326 Political Advertising
- COMM 327 Cases in Strategic Public Relations
- COMM 328 News Editing
- COMM 329 Graphics
- COMM 331 Mass Media Management
- COMM 334 Broadcast Programming
- COMM 380 Advertising Pracitcum
- COMM 410 Communication Theory
- COMM 411 Persuasion and Propaganda
- COMM 425 Cable Television
- COMM 481 Internship
- COMM 482 Directed Independent Study

Certificate in Business/Management (24 or 36 credits)

Level I: Business

The Level I Certificate Program in Business will comprise 24 credits, with no more than 6 credits allowed by way of transfer from another approved college. Level I 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 Accounting, plus an earned baccalaureate degree, provides the student with adequate course work to meet Pennsylvania's requirement to sit for the C.P.A. examination. However, both New York and New Jersey require additional credits in Finance (6 credits) and Business Law (6 credits) to sit for the exam. (For one of the additional courses in Finance, one of FIN 361, 362 or 475 is recommended. One of these courses could be taken as the Free Elective in Level I.) Students should consult an advisor in the Kania School of Management to ensure that they take the correct courses to satisfy the requirements of states other than Pennsylvania.

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.

Accounting (24 Credits)

- ACC 251-252 Financial Accounting I-II
- ACC 363 Federal Taxes
- ACC 364 Auditing Theory
- ACC 361-362 Intermediate Accounting I-II
- ACC 461 Cost Accounting
- ACC 470 Tax Law for Accountants

Personnel Management (24 Credits)

- MGT 351 Principles of Management I
- MGT 352 Principles of Management II
- MGT 361 Human Resource Management
Certificate in Computer Information Systems (24 credits)

This program is designed to introduce individuals to computers, and to expand the required math and programming skills needed for data analysis. The program targets:

1. Individuals presently in business who need to develop a greater familiarity with computer applications.
2. Individuals who are seeking to develop entry-level skills necessary for business computing.

**Required Courses**
- MATH 142 Discrete Structures*
- CMPS 134 Computer Science I
- CMPS 144 Computer Science II
- CMPS 330 Information Systems Analysis
- CMPS 340 File Processing

**Elective Courses (select two)**
- CMPS 240 Data Structures and Algorithms
- CMPS 331 Information Systems Development
- CMPS 341 Database Systems

Certificate in Forensic Health (12 credits)

This program is designed to advance interest in forensic issues as they relate to victims and offenders. Forensic Health is the application of the health-related sciences to public or legal proceedings, focusing on the forensic aspects of health care in the scientific investigation and treatment of victims and perpetrators of abuse, violence, criminal activity, and terrorism.

This certificate is open to all adults who meet the requirements for admission to the College of Graduate and Continuing Education but is of particular interest to those in health-related professions such as nursing, counseling, psychology, social work, emergency response and occupational therapy, as well as those in legal and criminal justice professions. Those interested in this certificate must complete the required 3-credit courses and one elective 3-credit course for a total of 12 credits.

**Required Courses**
- CJ 110 Introduction to Criminal Justice
- NURS 344 Forensic Health Care of Victims (online course)
- NURS 345 Forensic Health Care of Offenders (online course)

(The online courses are structured to work with your schedule.)

**Elective Courses (select one)**
Students are asked to consult with the Forensic Health Coordinator before choosing their elective so that they choose the course that best fits their career goals or interests.
- S/CJ 213 Criminology
- S/CJ 214 Juvenile Delinquency
- S/CJ 218 The American Court System
- S/CJ 220 Penology: The American Correctional System
- CJ 230 Crime Prevention
- CJ 237 The Investigative Process
- S/CJ 324 Victoriology

Certificate in Gerontology (24 credits)†

**Basic Certificate Program**
A program designed to meet the needs of persons currently employed in the field of aging by providing course work designed to increase and refine knowledge and practice skills.

**Required Courses**
- GERO 110 Introduction to Gerontology
- GERO 232 Aging and Death
- SOC 330 Social Policy and Aging

**Elective Courses (select five)**
- GERO 112 Social Problems of Aging
- GERO 212 Aging and the Life Cycle
- GERO 214 Aging and Human Behavior
- GERO 216 Aging and the Community
- GERO 218 Health and Aging+*
- GERO 220 Crime and Aging

**Advanced Certificate Program**
A program for persons with some previous college experience who are considering a career in the field of gerontology.

**Certificate in Health Administration (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.

**Required Courses**
- HADM 111 Introduction to Health Administration
- HADM 112 Health Systems
- HADM 211 Health Administration
- HADM 213 Supervising Health Personnel
- HADM 312 Health Finance
- HADM Electives (9 credits)

**Certificate in Human Resources Studies (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 Macro Human Resources
- HRS 112 Micro Human Resources*
- HRS 251 Performance Appraisal*
- HRS 252 Workforce Education and Training*
- HRS 340 Compensation and Benefits
- HRS 351 Recruitment, Selection and Staffing*

* Some prerequisite courses may be required, as determined by math-placement testing.
† Some daytime courses may be required.
* Recommended.
Combined Baccalaureate/Master’s Degree Program

An undergraduate student who plans to go on to graduate study in Accounting, Biochemistry, Chemistry, Community Counseling, Health Administration, Human Resources, History, Nursing, Rehabilitation Counseling, School Counseling, Software Engineering or numerous programs in the field of Education may be eligible for admission to the Combined Baccalaureate/Master’s Degree Program. This program allows an undergraduate student already enrolled in one of these fields, and who has excellent academic records, to complete requirements for the baccalaureate, while also electing graduate courses.

Departments participating in this program may allow some graduate work to satisfy undergraduate degree requirements (not to exceed 12 credit hours). In participating undergraduate departments, the student’s advisor will recommend the undergraduate course work for which graduate credits may be substituted.

The selection of the graduate course work, the particular credits to be applied toward an undergraduate degree, and a prospectus of study requirements approved by the student’s undergraduate program advisor, the chair of the department housing the student’s undergraduate degree program, the graduate program director in the student’s academic discipline, the appropriate undergraduate-program dean, and the dean of the College of Graduate and Continuing Education.

The Combined Baccalaureate/Master’s Degree student will be expected to complete his/her baccalaureate degree no later than the semester in which he/she completes the master’s degree. Often, the student entering the Combined Baccalaureate/Master’s Degree Program will complete both programs during a five-year time period.

For further information concerning possible participation in the Combined Baccalaureate/Master’s Degree Program, please refer to the Graduate Studies Catalog or contact the CGCE Office of Student Services and Advising at (570) 941-7580. You may also contact the following offices directly:

- **Accounting**
  - Dr. Robyn Lawrence (570) 941-7786
- **Chemistry, Biochemistry**
  - Dr. Christopher Baumann (570) 941-6388
  - Dr. David Marx (570) 941-6356

### Computing Sciences
- Dr. Yaodong Bi (570) 941-6108
- Prof. Richard Plishka (570) 941-6111

### Counseling and Health Services
- Dr. Oliver J. Morgan (570) 941-6171
- Dr. Ann Marie Tołeczko (570) 941-6172

### Elementary or Special Education
- Dr. Gloria Tanits Wenze (570) 941-6124

### Health Administration/Human Resources
- Dr. Peter C. Olden (570) 941-9242
- Dr. Terri Freeman Smith (570) 941-6218

### History
- Dr. Raymond Champagne (570) 941-7428
- Dr. Willis M. Conover (570) 941-4054

### Nursing
- Dr. Mary Jane Hanson (570) 941-4060
- Dr. Patricia Harrington (570) 941-7673

### Graduate Assistantships

Approximately 70 graduate assistantships are available each year. Students awarded assistantships receive stipends and are entitled to tuition scholarships. Please note that only those who possess a bachelor’s degree before the start of the assistantship will be considered. Applicants for graduate assistantships must have a completed Application for Admission on file in the CGCE Office of Student Services and Advising. Applications for graduate assistantships must be submitted by March 1. Awards are made on the basis of the student’s academic record, experience and promise as a graduate student.

Graduate students may also apply for Guaranteed Student Loans (GSL) and Federal Work-Study.

### Scheduling

Most classes are offered from 4:30 to 7:10 p.m. and 7:20 to 10:00 p.m., Monday through Thursday, in the fall and spring terms. Almost all courses meet one night per week. Summer and intersession classes are also available.

### Housing

The University maintains shared apartment facilities for graduate students wishing to live on campus. These are available on a first-come, first-served basis. For further information, please contact:

**Office of Residence Life**

The University of Scranton
4123 Quincey Avenue
Scranton, PA 18510
Telephone: (570) 941-6226
Fax: (570) 941-7938
E-mail: res-life@scranton.edu

**Graduate and Continuing Education • Professional Training and Development**

The Center for Professional Training and Development (CPTD) is a component of the College of Graduate and Continuing Education at The University of Scranton. CPTD offers a wide range of programs to meet the professional development needs of area industries and adults. These CPTD programs include graduate education workshops for teachers; non-credit technology/computer certification, certificates and packages; and supervisory and management workshops, along with customized training and education for industry.

The Center for Professional Training and Development is a Microsoft IT Academy that provides technology programs geared toward the working professional. Expert instructors provide opportunities for students to apply what they learn to real problems from their workplace. All technology programs feature instructor-led, hands-on classes with each participant at a computer workstation. Instructor certifications include Microsoft (MCP, MCSA, MCSE), MOUS, Adobe (Certified Expert), Cisco (Certified Network Administrator), NTcip (NT Certified Wireless Administrator) and Quark (Certified Trainer).

CPTD provides a wide range of programs to help professionals meet their continuing education requirements. Programs, workshops and seminars for real estate professionals, occupational therapists, nurses, accountants, and human resource managers are offered throughout the year. Whether students are interested in staying current in the field, developing skills, or expanding knowledge and expertise, CPTD has programs that can help.

Looking ahead, the Center for Professional Training and Development will continue to expand and adapt to meet the evolving needs of the region’s educators, managers and professionals. Courses and programs can be customized and delivered at the University or off campus.

**For Additional Information**

**Center for Professional Training and Development**

The University of Scranton, PA 18510
Telephone: (570) 941-7582
Fax: (570) 941-7937
Web: www.scranton.edu/cptd
E-mail: cptd@scranton.edu

**Office of Residence Life**

The University of Scranton
4123 Quincey Avenue
Scranton, PA 18510
Telephone: (570) 941-6226
Fax: (570) 941-7938
E-mail: res-life@scranton.edu

**Admissions Requirements**

Applicants for admission should submit a completed application form, $50 application fee, three letters of reference and official copies of their transcripts. In addition to these requirements, which apply to all programs, individual programs may have special requirements such as test scores, personal interviews or writing samples. Consult the Graduate Studies Catalog for these special requirements. International students whose native language is not English must submit scores from the Test of English as a Foreign Language (TOEFL), Society for Testing English Proficiency (STEP) or International English Language Testing System (IELTS). Scores required on this test for admission vary by program. Consult the Graduate Studies Catalog for minimum scores applicable to each program. Application documents should be on hand in the CGCE Admissions Office at least one month before the intended starting term. Consult the Graduate Studies Catalog for more stringent deadlines for the Counseling, Health Administration and Nursing programs. International students should have their credentials reviewed in the CGCE Admissions Office at least three months before the term in which they would like to begin their studies. Students may begin their studies in fall, spring, or summer. Software Engineering, Counseling, and Health Administration students may begin their studies only in the fall semester.

### For Additional Information

**College of Graduate and Continuing Education**

The University of Scranton
Scranton, Pennsylvania 18510-4631
Telephone: (570) 941-7600 or 1-800-366-4723 (within U.S.A.)
Fax: (570) 941-5995
E-mail: gcge@scranton.edu
Web: www.scranton.edu/gcge
UNIVERSITY DIRECTORY
Administration

Office of the President


President of the University (2003)
A.B., Georgetown University
M.A., Fordham University
M.Div., Th.M., Weston Jesuit School of Theology
Ph.D., City University of New York

Abigail Byman (1995)

Secretary of the University (1999)
General Counsel (1995)
B.A., Carleton College
J.D., University of Denver

Academic Affairs


Provost and Vice President for Academic Affairs (2005)
Professor, Philosophy (1993)
A.B., Yale University
M.A., Ph.D., Boston College

Dean, College of Arts and Sciences (1997)
Professor, Chemistry (1989)
B.A., LaSalle University
M.S., Ph.D., Lehigh University

University Director of Fellowship Programs (2000)
Director of Medical School Placement (1996)
Associate Professor, English (1986)
B.A., St. Bonaventure University
L.L., Katholieke Universiteit te Leuven
Ph.D., Kent State University
Darla Rae Germeroth (1989)

Associate Dean, College of Arts and Sciences (2002)
Professor, Communication (2000)
B.A., M.A., Kansas State University
Ph.D., University of Denver
Charles E. Kratz (1992)

Dean of the Library and Information Fluency (2005)
B.A., M.A., University of Notre Dame
M.L.S., University of Maryland
Kenneth R. Lord (2006)

Associate Dean, Kania School of Management (2006)
Professor, Marketing (2006)
B.A., English University of Utah
M.A., University of Utah
Ph.D., Ohio State University

Dean, Kania School of Management (2005)
Professor, Department of Accounting (2000)
B.S., University of Ghana
M.B.A., Northeast Louisiana
Ph.D., University of Houston
Michael J. Oliver (2007)

Associate Dean for Educational Services, Panuska
College of Professional Studies
B.S., Iona College
M.S., Ph.D., Syracuse University
Debra A. Pellegrino (2007)

Dean, Panuska College of Professional Studies (2007)
Professor, Education (2007)
B.S., M.Ed., Indiana University of Pennsylvania
Ed.D., Saint Louis University

Joseph M. Roback (2000)

Associate Vice President of Admissions and Undergraduate Enrollment (2006)
B.S., Marywood University
M.S., The University of Scranton
Helen H. Stager (1991)

Registrar (2002)
B.A., College Misericordia
E. Springs Steele, D. et U.* (1979)

Associate Provost (1997)
Professor, Theology/Religious Studies (1996)
B.A., M.A., Ph.D., University of Notre Dame
Rhonda A. Waskiewicz, O.T.R/L (1998)

Associate Dean, Panuska College of Professional Studies (2002)
B.S., Tufts University, Boston School of Occupational Therapy
M.S., King’s College
Ed.D., Temple University
University Ministries


Assistant Vice President for University Ministries (2006)
B.A., M.A., Worcester State College
M.Div., Seton Hall University

President Emeritus (1998)
B.S., Loyola College
Ph.D., Ph.L., St. Louis University
S.T.L., Woodstock College
Finance


Vice President for Finance/Treasurer (1987)
B.S., M.A., LaSalle University

Director of Human Resources (1996)
B.S., The Pennsylvania State University
M.S., The University of Scranton

Associate Vice President for Administrative Services (1988)
B.S., M.A., The University of Scranton

Associate Vice President for Finance (2002)
B.S., M.A., The University of Scranton
Institutional Advancement


Vice President for University Relations (2006)
B.A., Georgetown University
M.B.A., Cornell University
M.I.L.R., Cornell University
Anthony M. Ianiero (2006)

Associate Vice President for Development (2006)
B.A., M.Ed., The College of New Jersey
Gerald C. Zaboski (1988)

Associate Vice President for Alumni and Public Relations (2005)
B.A., M.S., The University of Scranton
Planning and Information

Jerome P. DeSanto, D. et U.* (1979)

Vice President for Planning and Chief Information Officer (2004)
B.S., M.B.A., The University of Scranton
Robyn L. Dickinson (1999)

Assistant Vice President for Planning and Information Management (2006)
A.A., Keystone College
B.S., Bucknell University
M.Ed., The Pennsylvania State University
Student Affairs

Vincent Carilli (2001)

Vice President for Student Affairs (2001)
B.S., East Stroudsburg University
M.Ed., Kutztown University
Ph.D., Southern Illinois University at Carbondale
Anitra McShea (2002)

Dean of Students, Student Affairs (2004)
B.A., Elizabethtown College
M.A., Bowling Green State University
Jesuit Community at Scranton


Rector of the Jesuit Community
B.S., St. Joseph’s University
Ph.L., Fordham University
S.T.L., Weston Jesuit School of Theology

Administrator of the Jesuit Community (1997)
Dean of Admissions Emeritus
A.B., M.A., Loyola University Chicago
S.T.B., Woodstock College
Administration Emeriti


Associate Dean Emeritus, Kania School;
Department of Economics/Finance
Thomas N. Bechis, M.S. (1964-96)

Director Emeritus/Kania School Advising Center;
Department of Psychology
Robert W. Burke, M.S., D. et U.* (1961-96)

Director of Personnel Emeritus

University Secretary Emerita

Vice President Emeritus for Administrative Services
Zim E. Lawhon, M.S., D. et U.* (1964-89)

Director of Military Science/Registrar Emeritus

Dean of Admissions Emeritus

Vice President Emeritus for Finance/Treasurer

President Emeritus for Institutional Advancement

* The designation D. et U. is an indication of the Pro Dxls University Award, given for 20 or more years of service to the University.
Faculty Emeriti

Panos Apostolidis, Ph.D. (1977-89) *Department of Management/Marketing
Department of Nursing
John J. Baldi, M.S.S.W., D.S.S., D. et U.* (1948-81)
Department of Sociology
Department of Theology/Religious Studies
Department of Exercise Science and Sport
Department of Economics/Finance
Richard J. Bouvier, Ph.D., D. et U.* (1968-93)
Department of Foreign Languages and Literatures
Edward J. Capestany, Ph.D., D. et U.* (1968-96)
Department of Philosophy
Department of Foreign Languages and Literatures
John J. Clarke, Ph.D. (1986-95)
Department of Communication
Department of Counseling/Human Services
Department of Education
Department of Education
Department of Physics/Electrical Engineering
Joseph C. Dougherty, Ph.D., D. et U.* (1967-91)
Department of History/Political Science
Department of Psychology
Department of Mathematics
Joseph T. Evans, Ph.D., D. et U.* (1953-93)
Department of Biology
Department of Education
Department of Nursing
Department of Education
A. John Giunta, Ph.D., D. et U.* (1960-93)
Department of Economics/Finance
Department of Economics/Finance
Department of Communication
Department of Foreign Languages/Literatures
Department of Chemistry
Eileen B Hewitt, M.S. (1982-99)
Department of Management/Marketing
Daniel J. Houlihan, J.D., D. et U.* (1947-85)
Department of Accounting

Faculty of Instruction

B.A., Milligan College
M.A., University of Idaho
Ph.D., University of Missouri
J. Brian Alford (1989)
Professor, Psychology (1999)
B.A., Milligan College
M.A., Ph.D., University of Mississippi
Michael Allison (2007)
Assistant Professor, Political Science (2006)
B.A., Fairfield University
M.S., Ph.D., Florida State University
Assistant Professor, Communication (2007)
B.A., Augusta College
M.A., Ph.D., University of Georgia
B.A., Davidson College
M.Div., Yale Divinity School
Ph.D., Duke University
B.S., M.S., Virginia Commonwealth University
M.Ed., M.S., East Stroudsburg University
B.A., University of Nebraska
Ph.D., University of Maine
B.S., Shippensburg University
M.Ed., Kutztown University
Ph.D., Temple University
Christopher A. Baumann (1984)
Professor, Chemistry (1998)
B.S., Oregon State University
Ph.D., University of Colorado
A.B., Westminster College
M.A., University of Chicago
Ph.D., University of Texas
A.B., King's College
M.A., Lehigh University
Ph.D., The Pennsylvania State University
B.A., Assumption College
S.T.L., Gregorian University
Ph.D., Boston College
B.S., Technical University of Poznan, Poland
M.S., Ph.D., Drexel University

* 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.
Lisa Ann Lesniski (2001)
Assistant Professor, Nursing (2002)
B.S.N., Marywood University
M.S., State University of New York at Binghamton
Ph.D., University of Maryland Baltimore County

Professor, Mathematics (1987)
B.A., M.S., Ph.D., Lehigh University
S.T.B., Gregorian University
M.A., John XXIII Institute, Maryknoll
S.E.O.L., S.E.O.D., Pontifical Oriental Institute

Catherine P. Lovecchio (2006)
Assistant Professor, Nursing (2006)
B.S., Villanova University
M.S. College Misericordia
Ph.D., University of Scranton

Professor, Accounting (2002)
B.S., M.B.A., The University of Scranton
Ph.D., Syracuse University

Chair, Department of Chemistry (1998)
Associate Professor, Chemistry (1992)
B.S., East Stroudsburg University
Ph.D., Binghamton University

Susan Fournier Mathews (1988)
Professor, Theology/Religious Studies (2000)
B.A., St. Anselm College
M.A., Ph.D., The Catholic University of America

Professor, Physical Therapy (1997)
B.S., St. Ambrose College
B.S., The University of Scranton
Ph.D., St. Louis University

Tata J. Mbugua (1998)
Associate Professor, Education (2006)
B.A., Nairobi Institute of Science and Technology
M.A., Ph.D., Ohio University

Karen L. Mbugua (2006)
Assistant Professor, Computing Sciences (1999)
B.S., The University of Scranton
M.S., Ph.D., Rensselaer Polytechnic Institute

Christine E. McDermott, D. et U.* (1979)
Assistant Professor, Biology (1993)
A.B., LeMoyne College
M.Sc., Ph.D., University of Notre Dame

Professor, Philosophy (1996)
B.A., Professor, University of Maryland
M.Div., Th.M., Weston School of Theology
M.A., Ph.D., Fordham University

Sharon M. Megher (1989)
Professor, Philosophy (2003)
B.A., Boston College
Ph.D., State University of New York at Stony Brook

Susan Carol Melding (1997)
Assistant Professor, English (2006)
B.A., Pace University
M.A., Fordham University
Ph.D., University of California

Molly Beth Mika (2007)
Assistant Professor, Occupational Therapy (2007)
B.S., M.Ed., College Misericordia
Ph.D. cand., Marywood University

Professor, Philosophy (1991)
B.A., M.A., Spring Hill College
Ph.D., Georgetown University

Kenneth G. Monka (1990)
Professor, Mathematics (2000)
B.S., The Pennsylvania State University
M.S., Ph.D., Lehigh University

Kathleen K. Montgomery (1998)
Associate Professor, Education (2001)
B.A., M.A., George Washington University
M.Ed., The Pennsylvania State University

Assistant Professor, Occupational Therapy (2005)
B.S., The Pennsylvania State University
M.S., Texas Woman’s University
D.Ed., Temple University

Oliver J. Morgan, Ph.D.(1990)
Chair, Department of Counseling and Human Services (1997)
Professor, Counseling and Human Services (2002)
B.A., Fordham University
M.S., Hahnemann Medical University
M.Div., Weston School of Theology
Ph.D., Boston University

Mary Elizabeth Moynan, D. et U.* (1986)
Chair, Library (2005)
Associate Professor (1995)
B.S., Rogue Valley State University
M.S., Villanova University
M.S., The University of Scranton

Jerry Muir (2004)
Associate Professor, Mathematics (2006)
B.A., M.A., State University of New York at Potsdam
Ph.D., University of Kentucky

Stacey Muir (2004)
Assistant Professor, Mathematics (2004)
B.S., Rochester College
M.A., Ph.D., University of Kentucky

Declan Mulhall (2004)
Assistant Professor, Physical/Electrical Engineering (2004)
B.Sc., Trinity College, Dublin
M.S., Ph.D., Michigan State University

Hong V. Nguyen, D. et U.* (1979)
Associate Professor, Economics/Finance (1985)
B.S., State University of New York at Brockport
M.A., Ph.D., Binghamton University

Philip Nicholas (1970)
Lecturer, Political Science (2006)
B.S., Stockton State College
M.A., Ph.D., Rockefeller College of Public Affairs and Policy, University at Albany

Professor, Psychology (1990)
B.A., Rutgers University
M.A., Ph.D., University of Rhode Island
Clinical Internship, Brown University School of Medicine

Chair, Department of Philosophy (2007)
Professor, Philosophy (1989)
A.B., Assumption College
M.A., Ph.D., University of Notre Dame

Kevin R. Norris, D. et U.* (1977)
Assistant Librarian II (1981)
B.A., M.S., University of Pittsburgh
B.A., The University of Scranton

Associate Professor, Psychology (1971)
B.S., The University of Scranton
M.S., Texas Woman’s University

Michael O’Stein (2000)
Associate Professor, English (2006)

Michael J. Olsien (2005)
Assistant Professor, Education (2005)
B.S., M.A., East Stroudsburg University
Ed.D., Lehigh University

Peter C. Olden (1993)
Professor, Health Administration and Human Resources (2005)
B.A., Miami University
M.H.A., Duke University
Ph.D., Virginia Commonwealth University

Assistant Professor, Library (2004)
A.B., Chestnut Hill College
M.L.S., Villanova University

David A. Olsen III (2001)
Associate Professor, Mathematics (2007)
B.A., University of Washington
M.Phil., Ph.D. cand., University of Oxford

Maria Orechikina (2007)
Assistant Professor, Education (2007)
M.S., Moscow State Pedagogical University
Ph.D. cand., The University of Tennessee

Masood Oztarwat (1988)
Professor, Mathematics (2001)
B.S., Pahlavi University
M.S., Sc.D., Columbia University

Ann M. Pang-White (1997)
Assistant Professor, Mathematics (2003)
B.A., Tufts University
M.A., University of South Carolina–Columbia

Philip Nicholas (1970)
Lecturer, Political Science (1973)
A.B., Xavier University

Robert A. Parsons, D. et U.* (1979)
Professor, Foreign Languages and Literatures (1991)
B.A., M.A., West Virginia University
Ph.D., The Pennsylvania State University

Richard H. Pason, D. et U.* (1964)
Professor, English (1984)
University Professor (2000)
A.B., King’s College
M.A., Ph.D., University of Notre Dame

Kimberly Pavlick (2005)
Instructor, Communication (2006)
B.S., West Virginia University
M.S., The University of Scranton
Ph.D. cand., Marywood University

Associate Professor, History (2005)
B.A., Lafayette College
M.A., Ph.D., University of Connecticut

Iordanis Petsas (2002)
Assistant Professor, Economics/Finance (2002)
B.A., University of Thessaloniki
M.A., Ph.D., Indiana University

Virginia A. Picchiotti (1995)
Assistant Professor, Foreign Languages and Literatures (2001)
B.A., Bryn Mawr College
M.A., Indiana University

Charles R. Pinches (1990)
Chair, Department of Theology/Religious Studies (2005)
Professor, Theology/Religious Studies (1996)
B.A., Wheaton College
M.A., Ph.D., University of Notre Dame

Chair, Department of Computing Sciences (1990)
B.S., Binghamton University
Ph.D., The University of Scranton

Igor S. Plog (2001)
Associate Professor, Mathematics (2007)
B.S., The University of Scranton
M.S., M.B.A., Syracuse University

Eric A. Plumer (2001)
Assistant Professor, Theology/Religious Studies (2001)
B.A., Fairfield University
M.A., Ph.D., University of Oxford
Ph.D., University of Notre Dame

* 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.
Abhijit Roy (2006)  
Associate Professor, Management/Marketing (2006)  
B.S., University of Allahabad, India  
M.S., M.B.A., University of Arizona  
D.B.A., Boston University

David A. Rusak (2000)  
Associate Professor, Chemistry (2000)  
B.S., University of North Carolina  
Ph.D., University of Florida

Associate Professor, Theology/Religious Studies (1991)  
B.A., Boston College  
M.S., Jesuit School of Theology  
Ph.D., Graduate Theological Union

Professor, Communication (1987)  
B.A., Michigan State University  
M.S., Syracuse University  
Ph.D., University of Iowa

John P. Sankey (1950)  
Chair, Physical Therapy/Occupational Therapy (2003)  
Associate Professor, Physical Therapy (1997)  
B.S., M.S., East Stroudsburg State College  
Ed.D., Columbia University

Edward M. Scalise (1958)  
Associate Professor, Economics/Finance (1994)  
B.S., St. Bonaventure University  
M.A., Ph.D., Wayne State University

Carl M. Schaffer (1988)  
Professor, English (2003)  
B.A., Earlham Dickinson University  
M.A., The University of Michigan  
M.F.A., University of Iowa

Rose Sebastianelli (1988)  
Professor, Operations Management (2003)  
Alperin Professor of Business Administration (1996)  
B.S., Indiana University of Pennsylvania  
Ph.D., The Pennsylvania State University

Professor, History (2001)  
B.A., DePaul University  
M.A., Ph.D., University of Notre Dame

Marc B. Shapiro (1996)  
Associate Professor, Theology/Religious Studies (2002)  
B.A., Brandeis University  
Ph.D., Harvard University

Thomas A. Shimkau (2004)  
Assistant Professor, Mathematics (2004)  
B.S., The University of Scranton  
M.S., Ph.D., Lehigh University

Associate Professor, Computing Sciences (1983)  
B.S., Duke University  
M.S., Ph.D., Auburn University

Vanessa Silla-Zaleski (2005)  
Assistant Professor, Education (2006)  
B.S., M.S., Thiel College  
Ed.D., Indiana University of Pennsylvania

Carole S. Slotteback (1995)  
Professor, Psychology (2007)  
B.S., Wilson College  
M.S., New Mexico Highlands University  
Ph.D., Northern Illinois University

Assistant Professor, Biology (2003)  
B.S., Alma College  
M.S., Central Michigan University  
Ph.D., The University of Southern Mississippi

Terri Freeman Smith (1995)  
Assistant Professor, Health Administration and Human Resources (2006)  
B.S., The Pennsylvania State University  
M.S., The University of Scranton  
Ph.D., The Pennsylvania State University

Professor, Engineering (2003)  
Ph.D., Electrical/Physics (2003)  
B.S., Stevens Institute of Technology  
M.S., Ph.D., University of Rochester

Assistant Professor, Health Administration and Human Resources (2005)  
B.B.A., Temple University  
B.A., The University of Scranton  
M.P.H., Columbia University  
D.B.A., Nova Southeastern University

Maria E. Squire (2005)  
Assistant Professor, Biology (2005)  
B.S., The University of Scranton  
M.S., Ph.D., Stony Brook University

Associate Professor, Exercise Science and Sport (1982)  
B.S., Concord College  
M.S., West Chester State College

Derry Lynn Stuitt (2005)  
Assistant Professor, Education (2005)  
B.S., Indiana University of Pennsylvania  
Ed.D., Ed.D., Indiana University of Pennsylvania

Michael A. Sulzinski (1990)  
Professor, Biology (2001)  
B.S., The Pennsylvania State University  
Ph.D., Cornell University

Delia A. Sum mall (1992)  
Associate Professor, Management/Marketing (1995)  
B.S., M.B.A., University of Southern Mississippi  
D.B.A., Mississippi State University

Terrence E. Sweeney (1992)  
Professor, Biology (2004)  
B.S., Lehigh University  
M.S., Ph.D., University of Rochester

Steven J. Szylowski (2004)  
Instructor, Health Administration and Human Resources (2005)  
B.S., M.B.A., M.H.A., The University of Scranton  
D.H.A., Medical University of South Carolina

Narda Tafuri (1994)  
Associate Professor, Library (2003)  
B.A., State University of New York at Oneonta  
M.A., New York University  
M.S., State University of New York at Albany

Nabil A. Tamimi (1993)  
Chair, Department of Operations Management (2007)  
Professor, Operations Management (2003)  
B.S., University of Virginia State University  
M.B.A., The University of Scranton  
Ph.D., Temple University

Associate Professor, Computing Sciences (1983)  
B.S., M.B.A., Virginia University

Len Tischler (1990)  
Chair, Department of Management/Marketing (2005)  
Associate Professor, Management/Marketing (1997)  
B.B.A., Wabash College  
M.B.A., Ph.D., University of Maryland

Ann Marie Toloczko (1992)  
Assistant Professor, Counseling and Human Services (1998)  
B.A., M.A., Marywood University  
Ph.D., Lehman University  
Licensed Psychologist

Professor, Biology (2003)  
B.A., College of the Holy Cross  
M.S., Central Michigan University  
Ph.D., State University of New York at Albany

Assistant Professor, Chemistry (2004)  
B.S., University of San Diego  
Ph.D., University of California, Berkeley

Jamie H. Trink (2006)  
Assistant Professor, Foreign Languages/Literatures (2006)  
B.A., Oberlin College  
M.A., Ph.D., Cornell University

Associate Professor, Economics/Finance (1992)  
B.S., London School of Economics  
M.S., Ph.D., The Pennsylvania State University  
A.P.C., New York University

Patrick J. Duffy (2005)  
Assistant Professor, Philosophy (2005)  
B.A., Fordham University  
M.A., University of Toronto  
Ph.D., Marquette University

Gretchen Van Dyke (1994)  
Associate Professor, Political Science (2000)  
B.A., Trinity College  
M.A., Ph.D., University of Virginia

Argyrios C. Varonides (1989)  
Professor, Physical/Electrical Engineering (2004)  
B.S., University of Thessalonika, Greece  
M.S., Temple University  
Ph.D., Drexel University

Professor, Chemistry (1990)  
B.S., University of California, Berkeley  
M.S., Ph.D., Iowa State University

Janice Voltzow (1996)  
Professor, Biology (2004)  
B.S., Yale University  
Ph.D., Duke University

* 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.
Robert F. Wadeck (2001)
Associate Professor, Biology (2007)
B.A., Lehigh University
M.P.A., University of Delaware
M.A., Ph.D., Temple University
Associate Professor, Communication (1981)
A.B., Butler University
M.A., Bowling Green University
Ph.D., The University of Michigan
Associate Professor, Administration and Human Resources (2004)
B.S., Marywood University
M.S., The University of Scranton
Ph.D., The Pennsylvania State University
Assistant Librarian II (1990)
Publications Librarian (1988)
B.A., National Taiwan University
M.L.S., Villanova University
M.S., The University of Scranton
Edward W. Warner, D. et U.* (1964)
Professor, Foreign Languages and Literatures (1999)
B.A., M.P.A., Indiana State University
Ph.D., University of Iowa
Professor, Exercise Science and Sport (2007)
B.S., M.A., Ph.D., Northwestern University
Lorence Wolfer (1996)
Associate Professor, Sociology/Criminal Justice (2002)
B.A., Franklin and Marshall College
M.A., Ph.D., Cornell University
Patricia Moyle Wright, MSN, RN (2007)
Assistant Professor, Nursing (2007)
B.S.N., M.S.N., College Misericordia
Ph.D. cand., Loyola University Chicago
Zhong Cheng Xiong (1988)
Associate Professor, Mathematics (1996)
B.S., Wuhan University
M.S., Ph.D., Lehigh University
Ling Xue (2007)
Instructor, Operations Management (2007)
B.A., Fudan University
M.S., Shanghai Jiaotong University
Ph.D. cand., The University of Texas at Austin
Christine A. Zakzeski (1992)
Associate Professor, Physics/Electrical Engineering (1998)
B.S., Rutgers University, Piscataway
M.S., Ph.D., Rutgers University Graduate School of New Brunswick
Associate Professor, Foreign Languages and Literatures (2001)
B.S., M.A., Ph.D., Indiana University
John M. Zych (1991)
Associate Professor, Management and Marketing (1997)
B.S., Worcester Polytechnic Institute
M.B.A., Babson College
D.B.A., Boston University
* 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.
Michele E. Davis (2003)  
Director, Center for Professional Training and Development (2003)  
A.A., B.S., M.S., The University of Scranton

Robert Davis (2006)  
Assistant Director for Housing Operations, Residence Life (2006)  
B.S., The University of Scranton

Director of Physical Plant (1989)  
A.S., Luzerne County Community College  
B.S., The University of Scranton

Gerard DiBromosko (2006)  
B.S., The University of Scranton

Patrick Donohue (2004)  
Budget Manager, Treasurer's Office (2006)  
B.S., The University of Scranton

Francine M. Dudzicz (1992)  
Senior Designer, Public Relations (1997)  
B.F.A., Marywood University

Kevin Duigan (2006)  
Head Men's Lacrosse Coach (2006)  
B.A., University of Notre Dame  
M.B.A., Widener University

Staff Psychologist, Counseling Center (2004)  
B.S., Cornell University  
Pty.D., Wright State University

Academic Advisor, College of Graduate and Continuing Education (2004)  
B.A., Marywood University

Director of Special Development Projects, Institutional Advancement (2000)  
A.A., B.S., The University of Scranton

Anthony Gazoo (2007)  
Information Management Specialist, Technology Development and Innovation (2007)  
B.S., Temple University

Stephen P. Gilbody (1997)  
Network Administrator, Network Resources (1997)  
B.S., Wilkes Area Community College

Frank M. Gilmartin (1990)  
Assistant Director/Information Resources Specialist, Career Services (2005)  
B.S., M.S., The University of Scranton

Director of Graduate Admissions, College of Graduate and Continuing Education (1990)  
A.S., M.B.A., The University of Scranton

Assistant to Comptroller, Treasurer's Office (1983)  
B.A., B.S., M.B.A., The University of Scranton

Andrew J. Gregorwicz (2001)  
Financial Analyst, Treasurer's Office (2001)  
B.S., The University of Scranton

Eugenie Grigorescu (1998)  
Instructional Designer, Center for Teaching and Learning Excellence (2004)  
B.A., M.S., Bloomsburg University

Barbara Grigrots (1991)  
Director of Academic Advising, Kania School Advising Center (2004)  
A.A., B.A., The Pennsylvania State University  
M.S., The University of Scranton

Judith A. Guinn (1999)  
Secretary, President's Office/Board of Trustees (1995)  
B.S., M.S., The University of Scranton

William F. Gunshannon (1989)  
B.A., M.S., Bloomsburg University

Denise Gurz (1995)  
Programmer Analyst, Systems and Software Resources (1999)  
B.S., Bloomsburg University

Brian P. Hartman (2007)  
Projects Coordinator, President's Office (2007)  
B.A., The University of Scranton

Karen V. Heckman (1989)  
Assistant to Comptroller, Treasurer's Office (1983)  
B.A., B.S., M.B.A., The University of Scranton

A.S.B., Central Pennsylvania Business School  
B.S., The University of Scranton

Anita J. Hiemstra (1992)  
Assistant Registrar, Registrar's Office (1993)  
B.A., M.S., The University of Scranton

Corey S. Henfling (2005)  
Area Coordinator, Residence Life (2005)  
B.A., Lycoming College

* 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.
Stephanie King (2006)  
Admissions Counselor, Admissions (2006)  
B.A., The University of Scranton

Jonathan Kirby (2006)  
Assistant Director of Financial Aid (2007)  
B.A., Cedarville University

Programmer Analyst, Systems and Software Resources (1996)  
B.S., Marywood University

Mary A. Kovacik (1998)  
Library Systems Coordinator, Library (2000)  
B.A., College Misericordia

Christopher C. Keall (1994)  
Senior Systems Administrator, Systems and Software Resources (1996)  
A.S., The Pennsylvania State University  
B.S., The University of Scranton

Francis X. Kraniak (1994)  
CAD Drafter/CAFM Operator, Physical Plant (1994)  
A.S., Johnson School of Technology

Vera Krewsun (2006)  
Program Manager for the Royal Fund, Annual Fund (2006)  
B.A., Dickinson College

Bernard Krazi (2002)  
Academic Advisor, Panuska College of Professional Studies (2002)  
B.A., The University of Scranton  
M.A., Fordham University

Marc Kudrich (1997)  
Barnar (1997)  
B.S., M.S., The University of Scranton

Gretchen Kulicka (2002)  
Manager of Training and Seminar Development, Small Business Development Center (2002)  
B.A., Virginia Tech

Theresa Kurla (2002)  
Grant Accountant (2002)  
B.S., King’s College

Mary Ann T. Kuadzo (1989)  
Record Analyst, College of Graduate and Continuing Education (2002)

Anthony J. Laboranti (1990)  
Superintend, Building Grounds, Physical Plant (1990)

Registered Nurse, Student Health Services (2006)  
R.N., Presbyterian University of Pennsylvania  
Medical Center

Maria Landis (1993)  
Information Coordinator, Office of Research Services (2007)  
A.A., B.S., The University of Scranton

Zim E. Lawhon, D. et U.* (1964)  
Registrar Emeritus (1989)  
Advisor, Arts & Sciences Academic Advising Center (1989)  
Professor of Military Science (1964)  
Col., U.S. Army – Ret.

A.B., M.S., Princeton University

Thomas Leong (2006)  
Math Specialist, Center for Teaching and Learning Excellence (2006)  
B.S., M.A., The City College of New York

Eloise T. Libassi (1996)  
Grant Specialist and Coordinator of Student Research Projects (2003)  
B.A., University of Maryland  
M.A., Boston College

Deborah Lipinski (2002)  
Undergraduate Transfer Counselor, Admissions (2004)  
B.A., Marywood University

Robert Liszkov (2005)  
Psychologist, Counseling Center (2006)  
B.S., The University of Scranton  
M.A., Loyola College of Maryland  
Philosophy and theology

Lisa LoBasso (2006)  
Director of Field Placement, Department of Education (2006)  
B.S., M.S., East Stroudsburg University

Toby A. Lovecchio (1997)  
Director of Athletics (1997)  
B.S., The University of Scranton  
M.Ed., Temple University

Geraldine Lovejoy (2005)  
Academic Advisor, Kania School of Management (2005)  
B.A., Pennsylvania State University  
M.Ed., University of Nebraska

James F. Loven (2000)  
Laboratory Equipment Manager (2000)  
B.S., The Pennsylvania State University

Mary Jane Lucas (2005)  
Director of Liturgical Music and Liturgical Ministries, Campus Ministries (2003)  
B.M., M.A., Marywood University

Sandra Skies Ludwig (2002)  
Communications Coordinator, Public Relations (2002)  
B.A., Wilkes University

Director of Development for Annual Resources (2000)  
B.A., B.M.A., Wilkes University

Keith MacAnalogue (2006)  
Campus Ministe, University Ministe, (2006)  
B.A., Fairfield University  
M.Ed., Providence College

B.S., The University of Scranton

Director of Consumer and Event Services, Public Relations (2006)  
B.S., The University of Scranton

Assistant Director, Systems and Software Resources (1996)  
B.S., M.B.A., The University of Scranton

Anthony Maszorski (2002)  
Information Security Manager, Network Services (2007)  
B.S., The University of Scranton

Thomas Mazzei (1994)  
Regional Director of Development, Institutional Advancement (2006)  
B.A., The University of Scranton

Computer Operations Administrator, Systems and Software Resources (2002)

Donald O. McColl (2001)  
Assistant Help Desk Coordinator, Information Resources (2001)  
B.S., The University of Scranton

Systems Coordinator for Residence Life (1996)

Director, Career Services (2004)  
B.A., University of Denver  
M.S., Marywood University

Mark McGovern (2006)  
Senior Research Analyst, Planning, Assessment and Institutional Research Office (2007)  
B.A., Gannon University  
M.S., Shippensburg University

Aileen A. McHale (1988)  
Instructional Technology and Enrichment Specialist, Center for Teaching and Learning Excellence (2003)  
B.S., King’s College

John F. McNamara, D. et U.* (1975)  
Campboller, Treasurer’s Office (1982)  
B.S., The University of Scranton

Margaret McNulty (2000)  
Director of Corporate and Foundation Relations, Institutional Advancement (2000)  
B.S., M.S., The University of Scranton

Patricia A. Mccandol (1995)  
Production Manager, University Press (2000)  
B.S., The University of Scranton

Barbara C. Mericle (1990)  
Counselor, Counseling Center (1999)  
B.A., Lock Haven University  
M.S., The University of Scranton

Senior Consultant, Desktop and Instructional Resources (1996)  
B.S., The University of Scranton

Darlene A. Miller-Lanning (1991)  
Director, University Art Gallery/Adjunct Professor, History Department (1998)  
B.A., Wilkes University  
M.F.A., Marywood University  
Ph.D., Binghamton University

Tahbi Miller-Scandle (2002)  
Director of Research, Institute of Molecular Biology and Medicine (2002)  
B.S., The University of Scranton  
M.S., East Stroudsburg University  
Ph.D., Binghamton University

Danielle L. Morse (1991)  
Assistant Director, Desktop and Instructional Resources (2007)  
B.S., Wilkes University  
M.S., The University of Scranton

Assistant to Vice President for Student Affairs (1992)  
A.B., St. Bonaventure University  
M.S., Syracuse University  
M.S., The University of Scranton  
D.Ed., The Pennsylvania State University

Andrea J. Mulrine (1998)  
B.S., The University of Scranton

James V. Muniz (1990)  
Academic Development Program Director/Reading Specialist, Center for Teaching and Learning Excellence (2003)  
B.S., Kutztown State College  
M.S., Marywood University  
M.S., The University of Scranton

Marion Munley (2006)  
Regional Director of Development, Institutional Advancement (2006)  
B.S., The University of Scranton

Mark R. Murphy (2001)  
Assistant Director of Utilities, Plant Engineer, Physical Plant (1998)  
B.S.E.E., Wilkes University  
B.S., University of Scranton

Anthony Pamelia (1994)  
Served as Senior Assistant, Admissions (2007)  
B.A., The University of Scranton

JoAnn L. Nicotera (1985)  
Director, University Press (1999)  
B.A., Lock Haven University  
M.S., University of Pennsylvania  
B.A., F.N.P., Binghamton University

Lisa Notariani (1991)  
Manager of Telecommunications and Business Services, Network Resources (2003)  
A.S., Lackawanna Junior College

André Oberlé (2005)  
Director, Center for Teaching and Learning Excellence (2005)  
B.A., M.A., University of Toronto  
Ph.D., Queens University

Amy Paciej (2003)  
Director of Student Activities and Orientation (2006)  
B.A., The University of Scranton  
M.S., Canisius University

Lisa Nelson (1982)  
Inventory Control and Materials Coordinator, Physical Plant (2005)

Crystal Netherland (2005)  
Senior Consultant, Technology (2005)  
B.A., The University of Scranton

* 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.
Affiliated Faculty
The Kania School of Management
Ermeng Nn, Ph.D.

Medical Technology
Joseph King, M.D.
Brian D. Spazialetti, M.S., M.T. (ASCP)

The Panuska College of Professional Studies
Ljubi Bacinova, M.D., Ph.D.
Andra D. Sacks, M.D., Ph.D.
Juraj Gernes, M.D., Ph.D.
Otto Givr, M.D., Ph.D.
Vladimir Kecmery, M.D., Ph.D., M.P.A.
Levan kobaladze, M.D., Ph.D., M.P.A.
Petter Kriazin, M.D., Ph.D.
Helene Kuvikova, Ph.D.
Joseph Manulnik, Ph.D., M.P.H.
Milan Murgas, Ph.D., M.D., Csc.
Ralph N. Pacinelli, D.Ed.
Libusa Radkova, Ph.D.
Bernardo Ramirez, M.D.
Martin Rusanak, M.D., M.D., Csc.
Viera Ruznakova, M.D., Ph.D.
Vincent J. Vanston, M.D.
Alan V. Varuzhak, M.D., Ph.D.

Accreditations
Accreditation Board for Engineering and Technology
Accreditation Council for Occupational Education
The Association to Advance Collegiate Schools of Business (AACSB International)
American Chemical Society
Commission on Collegiate Nursing Education
Commission on Accreditation in Physical Therapy Education
Commission on Accreditation of Healthcare Management Education
Council for Accreditation of Counseling and Related Educational Programs
Council for Standards in Human Service Education
Council on Accreditation of Nurse Anesthesia Educational Programs
Council on Rehabilitation Education
Commission on Higher Education of the Middle States Association
National Accrediting Agency for Clinical Laboratory Sciences
National Association of Boards of Examiners of Long Term Care Administrators
National Council for Accreditation of Teacher Education
Pennsylvania Department of Education

Memberships
Academy of Criminal Justice
American Association for Higher Education
American Association of Colleges for Teacher Education
American Association of Colleges of Nursing
American Occupational Therapy Association
American Physical Therapy Association
Association for Continuing Education
Association for the Advancement of Computing in Education
Association of American Colleges and Universities
Association for Continuing Education, Inc.
Association for College and University Business
Association for Career and Technical Education
Association for Professional Advancement
Association of American Colleges and Universities
Association of Colleges and Universities
Association of Independent Colleges and Universities
Association of Independent Colleges and Universities
Association of Independent Colleges and Universities
National Council for Accreditation of Teacher Education
National Council on Rehabilitation Education
National League for Nursing
National Organization of Nurse Practitioner Faculties
Pennsylvania Association of Colleges and Teachers Educators
Pennsylvania Association of Colleges and Universities
Pennsylvania Higher Education Nursing School Association
Pennsylvania Licensure

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, Washington
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

University Directory

Memberships
American Chemical Society
Commission on Collegiate Nursing Education
Commission on Accreditation in Physical Therapy Education
Commission on Accreditation of Healthcare Management Education
Council for Accreditation of Counseling and Related Educational Programs
Council on Accreditation of Nurse Anesthesia Education Programs
Council of Independent Colleges
Council on Rehabilitation Education, Inc.
Council on Undergraduate Research
Council for Standards in Human Service Education
Fullbright Association
Fulbright Institute for Technology in Nursing Education
Hispanic Association of Colleges and Universities
Higher Education Data Sharing Consortium
Institute of International Education
Lilly Fellows Program in Humanities and the Arts
Middle States Commission on Higher Education
National Association of Women in Catholic Higher Education
National Association of Independent Colleges and Universities
National Council for Accreditation of Teacher Education
National Council on Rehabilitation Education
National League for Nursing
National Organization of Nurse Practitioner Faculties
Pennsylvania Association of Colleges and Teachers Educators
Pennsylvania Association of Colleges and Universities
Pennsylvania Higher Education Nursing School Association

Associated New American Colleges
Association of Catholic Colleges and Universities
Association of Governing Boards of Universities and Colleges
Association of Independent Colleges & Universities of Pennsylvania
Association of Jesuit Colleges and Universities
Association of University Programs in Health Administration
The Association to Advance Collegiate Schools of Business
Center for Academic Integrity
Chamber of Commerce Greater Scranton
College Board
Commission on Independent Colleges and Universities
Commission on Accreditation of Healthcare Management
Commission on Collegiate Nursing Education
Commission on Higher Education Accreditation
Missouri
  Rockhurst University, Kansas City
  Saint Louis University, St. Louis

Nebraska
  Creighton University, Omaha

New Jersey
  St. 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
  St. 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

Statement of Ownership
  This bulletin is entirely owned and controlled by The University of Scranton, Scranton, Pennsylvania 18510.
INDEX
International Baccalaureate, 16
International Business, 239; Course Descriptions, 239; Curriculum, 240
International Language-Business, 158; Curriculum, 161
International Programs and Services, 74
International Studies, 168; Curriculum, 170; Minor, 168
Internship Programs, 74
Italian, 163
Italian Studies Concentration, 87

J
Jane Kopas Women's Center, 44
Japanese, 163
Jesuit Colleges and Universities, Association of, 355
Judaic Studies Concentration, 87
Jesuit Colleges and Universities, Association of, 355
Judaic Studies Concentration, 87
Jesuit Colleges and Universities, Association of, 355
Judaic Studies Concentration, 87

K
Kania School of Management, 221; Accreditation, 222; Business Cognate, 222; Graduation Requirements, 222; Math Options, 223; Mission Statement, 222

L
Language. See Foreign Languages and Literatures
Latin, 167
Latin American Studies Concentration, 88
Leadership: Air and Space Studies (Air Force Reserve Officer Training Corps), 52; Business Leadership Program, 79; Center for Health Education and Wellness, 45; International Programs and Services, 74; Minor, 183; Residence Life, 42; Student Activities and Orientation, 45
Leaves of Absence, 68
Liberal Studies, 320; Curriculum, 320
Library, Weinberg Memorial, 59
Life on Campus, 41
Literature. See Foreign Languages and Literatures
Loans and Grants, 24
LPN to B.S. in Nursing, 318; Curriculum, 319

M
Majors, 71
Management, 241; Course Descriptions, 241; Curriculum, 242
Management, Kania School of. See Kania School of Management
Marketing, 244; Course Descriptions, 244;
Curriculum, 245
Marywood University Cross-Registration, 76, 315
Master's Degree Programs, 329
Mathematics, 175; Course Descriptions, 175; Curriculum, 177; Minor, 175
Media and Information Technology, 180; Course Descriptions, 180; Curriculum, 181
Medical Technology, Curriculum, 120
Memberships, 355
Military Leave Policy, 68
Military Science, 182; Course Descriptions, 183; Leadership Minor, 183; ROTC Scholarships, 183
Minors, 72
Mission Statement, 6
Modern Languages. See Foreign Languages and Literatures
Multicultural Affairs, 43
Music. See Art and Music

N
National Recognition, 9
Neuroscience, 184; Cognate, 184; Course Descriptions, 185; Curriculum, 185
Nondiscrimination Policy, 2
Nursing, 293; Course Descriptions, 295; Curriculum, 296; LPN to B.S., 318; Curriculum, 319; RN to B.S., 316; Curriculum, 317

O
Occupational Therapy, 299; Accreditation, 300;
Capstone Experience, 300; Course Descriptions, 300; Curriculum, 301; Officers of the University Corporation, 334
Online Courses, 70, 313
Operations Management, 246; Course Descriptions, 247; Curriculum, 248; Minor, 246
Orientation, 45

P
Panhandle College of Professional Studies, 251
Peace and Justice Studies Program, 89
Performance Music, 48
Philosophy, 186; Course Descriptions, 187; Curriculum, 188; Minor, 187
Physical Education, 282
Physical Therapy, 304
Physics, 192; Course Descriptions, 192;
Curriculum, 194; Minor, 192
Political Science, 197; Course Descriptions, 197;
Curriculum, 199; Public Administration and Public Affairs Track, 197
Portuguese, 164
Pre-Engineering, 138; Transfer Program
Curriculum, 142
Pre-Law Program, 80; Advisory Council, 81;
Curriculum, 80; Internships, 81; Law School Admission Test (LSAT), 81
Pre-Medical Program, 82; Curricula, 82
Probation, 67
Professional Staff, 347
Professional Studies, Panhandle College of. See Panhandle College of Professional Studies
Professional Training and Development, Center for, 331
Psychology, 202; Course Descriptions, 202;
Curriculum, 204; Minor, 202
Publications, Student, 48

R
Radio, 49
Readers, 63
Readmission, 69
Registrar, 60
Repeat of Course, 65
Reserve Officer Training Corps (ROTC). See Military Science
Residence Life, 42
RN to B.S. in Nursing, 317; Curriculum, 317
Room Charges, 18
Russian, 164

S
Scholarships and Financial Aid, 23; Financial Aid Refund Policy, 24; Loan and Grant Programs, 24; Procedures for Applying, 24; Scholarships, 26
Secondary Education. See Education
Second Baccalaureate Degree, 312
Second Degrees, 75
Self-Improvement, 312
Senior Citizen Tuition, 314
Service Learning, 75
Sociology, 207; Course Descriptions, 207;
Curriculum, 208; Minor, 207
Software Engineering, Combined Baccalaureate/
Master's Degree Program in, 128
Spanish, 164
Special Education. See Education
Special Jesuit Liberal Arts Program (SLA), 76;
Course Descriptions, 76; Curriculum, 77
Staff, Professional, 347
Student/Faculty Teaching Mentorship Program, 75
Student Diversity and <00AD>Participation, 8
Student Government, 46
Student Health Services, 44
Student Rights and Confidentiality of Information, 70
Student Services, 42
Study Abroad, 74
Summer Bridge Program, 16

T
Telecourses, 312
Television, 49
Theatre, 144; Course Descriptions, 151;
Curriculum, 152; Minor, 145; University Players, 49
Theology/Religious Studies, 212; Course Descriptions, 213; Curriculum, 214; Minor, 213; Pastoral Studies Track, 213
Three-Year Bachelor's Degree, 75
Transferring Credits, 69
Transfer Student Admission, 16
Truman and Other National Scholarships, 10
Tuition and Fees, 18; Insurance, 17; Payments, 17;
Refunds, 20; Refund Schedule, 20

U
Undeclared Freshmen, 96
University at a Glance, 53
University Directory, 333
University Seal, 7

V
Veterans' Benefits, 26
Visiting Students, 312
Volunteer Activity, 8

W
Web Courses, See Online Courses
Weinberg Memorial Library, 59
Withdrawal, 68
Women's Center, Jane Kopas, 44
Women's Studies Concentration, 91
Work-Study Program, 25
Writing Minor, 145; Course Descriptions, 153