Westminster College does not discriminate, and will not tolerate discrimination, on the basis of race, color, national origin, ethnic origin, sex, sexual orientation, age, or handicap or disability as those terms are defined under applicable law, in the administration of any of its educational programs, activities, or with respect to admissions and employment. In its employment practices, the College may consider the individual’s support of the philosophy and purposes of Westminster as stated in the Undergraduate Catalog. Otherwise, Westminster does not discriminate, and will not tolerate discrimination, on the basis of religion or creed. Inquiries may be directed to the equal opportunity officer, Westminster College, New Wilmington, PA 16172-0001, (724) 946-7247.

This Undergraduate Catalog is for information only and cannot be considered binding on the College. Westminster College reserves the right and authority to change any and all requirements, regulations, policies, and academic curricula, and it is the student’s responsibility to remain informed about these and any changes made thereto. Questions should be directed to the student’s adviser.
Correspondence

The College mailing address is 319 S. Market Street, New Wilmington, PA 16172-0001. The College switchboard number is (724) 946-8761; Fax: (724) 946-7171; World Wide Web address: www.westminster.edu.

CONTACT THE FOLLOWING INDIVIDUALS FOR INFORMATION CONCERNING …

•Applications for Admission/Catalog Requests/Related Matters:
  Bradley P. Tokar, vice president for enrollment
  (724) 946-7100 or (800) 942-8033  email: tokarbp@westminster.edu

•Academic and Faculty Questions:
  Jesse T. Mann, vice president for academic affairs and dean of the College
  (724) 946-7123  email: mannjt@westminster.edu

•Academic Requirements and Records:
  June G. Pierce, registrar
  (724) 946-7135  email: piercejg@westminster.edu

•Adult and Graduate Studies:
  Elizabeth E. Hines, director of adult and graduate studies
  (724) 946-7031  email: ehines@westminster.edu

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  (724) 946-7140  email: romigkj@westminster.edu

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  Linda B. “Jackie” Meade, director of the career center
  (724) 946-7339  email: meadelb@westminster.edu

•Financial Aid:
  Cheryl Gerber, director of financial aid
  (724) 946-6173  email: gerberca@westminster.edu

•Student Affairs:
  Neal A. Edman, vice president for student affairs and dean of students
  (724) 946-7113  email: nedman@westminster.edu

•College Public Relations:
  Mark A. Meighen, senior director, advancement administration
  (724) 946-7191  email: meighema@westminster.edu

•Establishing Endowed or Annual Scholarships/Grants/Requests:
  Gloria C. Cagigas, vice president for institutional advancement
  (724) 946-7368  email: cagigagc@westminster.edu
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2012-2013 ACADEMIC CALENDAR

THE COLLEGE ... AT A GLANCE
Calendar 2012-2013

FALL SEMESTER 2012

Aug. 22 .................Wed. ...............New Faculty Orientation
Aug. 23 .................Thur. ...............Faculty Workshop
Aug. 24 .................Fri. ..................First Year Students Arrive
Aug. 24 .................Fri. ..................Faculty Meeting
Aug. 24 .................Fri. ..................Opening Convocation
Aug. 24-27 ...........Fri.-Mon. ........First Year Orientation
Aug. 27 .................Mon. ...............First Year Student Advising
Aug. 28 .................Tues. ...............Classes Begin
Oct. 15 .................Mon. ...............First 7-Week Period Ends
Oct. 16 .................Tues. ...............Second 7-Week Period Begins
Oct. 27-29 ............Sat.-Mon........Mid-semester Break
Oct. 30 .................Tues. ...............Classes Resume
                 Monday Classes Meet
Nov. 21-25 .............Wed.–Sun. ....Thanksgiving Break
Nov. 26 .................Mon. ...............Classes Resume
Dec. 7 .................Fri. .................Classes End
Dec. 10–11 ..........Mon.-Tues.....Final Period
Dec. 12 .................Wed. ...............Reading Day
Dec. 13–14 .............Thur.-Fri. ........Final Period
**SPRING SEMESTER 2013**

Jan. 15 ..............Tues. ..............Classes Begin
Jan. 21 ..............Mon. ..............Martin Luther King Jr. Day
Classes Will Not Meet
Jan. 22 ..............Tues. ..............Classes Resume
Monday Classes Meet
March 4-10 .......Mon.-Sun. ....Spring Break
March 11 ..........Mon. ..............Classes Resume
March 12 ..........Tues. ..............First 7-Week Period Ends
March 13 ..........Wed. ..............Second 7-Week Period Begins
March 28 ..........Thur. ..............Monday Classes Meet
March 29-April 1 ..Fri.–Mon. ......Easter Break
April 2 ..........Tues. ..............Classes Resume
April 24 ..........Wed. ..............Undergraduate Research and Arts Celebration
Classes Will Not Meet
May 3 .............Fri. ..............Classes End
May 6-7 ..........Mon.-Tues. ....Final Period
May 8 ..........Wed. ..............Reading Day
May 9-10 .........Thur.-Fri. ....Final Period
May 18 ..........Sat. ..............Baccalaureate/Commencement

**SUMMER SESSION 2013**

June 10 ..........Mon. ..............Classes Begin
July 4 ..........Thur. ..............Holiday - No Classes
Aug. 12 ..........Mon. ..............Classes End
The College at a Glance

Affiliation: Westminster is a coeducational, liberal arts college related to the Presbyterian Church (U.S.A.) through the Synod of the Trinity.

Location: Westminster is located in New Wilmington, Pa., a small residential town. It is 65 miles north of Pittsburgh, 80 miles south of Erie, and 85 miles southeast of Cleveland.

Campus: Westminster’s campus extends over 300 acres. The campus includes 24 buildings, athletic fields, tennis courts, 100-acre outdoor laboratory and Brittain Lake.

Students: Westminster’s enrollment is about 1,500 undergraduates, 125 graduate students and 60 Lifelong Learning Program students.

Faculty: Ninety percent of the faculty hold terminal degrees. Faculty members are selected on the basis of education, scholarship, experience, and understanding of the Christian character of the College.

Accreditation: Westminster is accredited by the Middle States Association of Colleges and Schools.

Libraries: McGill Library contains more than 283,000 volumes and provide facilities for individual study. The number of volumes increases annually at the rate of approximately 3,000.

Religious Life: Westminster presents its students with opportunities for Christian growth, including optional weekly worship services, Sunday Vespers and Catholic Liturgy. Habitat for Humanity is the largest student organization on campus.

Curriculum and Calendar: A general education program is required of all students. Specialization is offered in 41 majors. Westminster operates on a semester calendar—Fall and Spring semesters of 16 weeks. Summer Session is also held.

Degrees: Westminster grants three undergraduate degrees—Bachelor of Arts, Bachelor of Science, and Bachelor of Music—and one graduate degree: Master of Education.

Housing Facilities: The College has residence halls for men and women. Each of the national fraternities also has a house with residence facilities. All halls are single-sex, and housing is guaranteed for four years.

Student Activities: Westminster students participate in band, choir, orchestra, athletics, broadcasting, theatre, national fraternities and sororities, student government, publications, special interest groups and honoraries, and other activities.
The College

Westminster College is an independent, coeducational liberal arts college, related to the Presbyterian Church (U.S.A.). For over 150 years, Westminster has been characterized by the excellence of its educational programs which have embodied ideals and values of the Biblical traditions.

Development of the individual—in tellectually, spiritually, and socially—is the primary purpose of Westminster. The College views education as a maturing experience and believes the liberal arts heritage offers exceptional opportunities for development of the individual in today’s rapidly changing world. The advancement of Westminster’s graduates in a wide variety of careers and professions is evidence of the inherent value and relevance of the liberal arts.

Westminster is a community of learning, small enough to encourage the exchange of different ideas and philosophies yet large enough to provide diversity of knowledge, experiences and values. Its residential atmosphere enhances personal interaction.

Westminster is proud of its heritage. It was founded to promote the spirit and values of Christianity. One of the earliest coeducational colleges in the nation, Westminster has been dedicated to “the mental and moral training of youth of both sexes” since it opened its doors in 1852. The first catalog (1853) stated that “no person will be refused admission on account of color, caste, or sex,” making Westminster a pioneer in supporting nondiscrimination. Dedicated to these ideals today, the College admits students of all races, creeds, and national and ethnic origins, and accords all students equal rights and privileges. Westminster College does not discriminate, and will not tolerate discrimination, on the basis of race, color, national origin, ethnic origin, sex, sexual orientation, age, or handicap or disability as those terms are defined under applicable law, in the administration of any of its educational programs, activities, or with respect to admissions and employment.

Westminster was founded by members of the Associate Presbyterian Church, which in 1858 merged with the Associate Reformed Presbyterian Church to form the United Presbyterian Church. Through the union of the United Presbyterian Church of North America and the Presbyterian Church of the United States of America in 1958, Westminster was affiliated with the United Presbyterian Church in the United States of America until 1983. With the merger of northern and southern churches in 1983, the official denominational name became the Presbyterian Church (U.S.A.).

MISSION STATEMENT

The mission of Westminster College is to help men and women develop competencies, commitments, and characteristics which have distinguished human beings at their best. The liberal arts tradition is the foundation of the curriculum
continually designed to serve this mission in a rapidly changing world. The College sees the well-educated person as one whose skills are complemented by ever-developing values and ideals identified in the Judeo-Christian tradition. Westminster’s quest for excellence is a recognition that stewardship of life mandates the maximum possible development of each person’s capabilities. The College thus realizes its mission in men and women who as students:

- Develop intellectual curiosity and the competencies to reason logically, evaluate critically, communicate effectively, imagine creatively, and appreciate aesthetic and creative expressions of humanity;
- Acquire a knowledge and appreciation of self, society, human cultures, the natural world, and human relationships to God;
- Develop and demonstrate moral and ethical commitments to neighbor, society, and the natural world consistent with an understanding of self;
- Commit themselves to lifelong learning and the acquisition of skills for careers and responsible service as world citizens.

**Westminster College Outcomes**

The College’s mission statement expressed as statements of student ability-based outcomes:

- To reason logically and evaluate critically;
- To communicate effectively;
- To think creatively, and appreciate aesthetic expressions;
- To demonstrate intellectual curiosity;
- To acquire knowledge of self, society, human cultures, the natural world, and human relationships to God;
- To apply knowledge to contemporary issues;
- To demonstrate moral and ethical commitments to neighbor, society, and the natural world;
- To demonstrate commitment to lifelong learning and the acquisition of skills for careers and responsible service as world citizens.

The curricular and co-curricular learning programs are designed as a means by which the College endeavors to fulfill its mission.

**RELIGIOUS PERSPECTIVES**

The student at Westminster is enrolled in a college sustained through the decades by what was the United Presbyterian Church in North America and is today related to the Presbyterian Church (U.S.A.) through the Synod of the Trinity. This heritage has at its core those ideals exemplified by Jesus Christ.
Today, the College continually strives creatively to understand and to express the relationship between its religious heritage and the liberal arts ideals and values in ways relevant to a rapidly changing world. Westminster embraces the total Church in its divisions and the human race in its diversity. The College is critically open to the moral and spiritual character of different religious traditions and resolves to be truly ecumenical, ready to participate in interfaith dialogues and endeavors.

Westminster’s Board of Trustees, administration, faculty and students develop their policies and practices based on the principles, values and ideals of Christian faith. Every member of the Westminster College community is expected to honor the standards of compassion, justice, and a disciplined life in the pursuit of excellence.

**ACCREDITATION AND MEMBERSHIPS**

Westminster is accredited by the Middle States Association of Colleges and Schools, and is a charter member of the Association. The teacher preparation programs are approved by the Department of Education of the commonwealth of Pennsylvania. The program in chemistry is approved by the American Chemical Society. Westminster College is an accredited institutional member of the National Association of Schools of Music. The College is a member of the American Council on Education, the National Association of Independent Colleges and Universities, the Association of Presbyterian Colleges and Universities, and other national organizations.
The Campus

Westminster is located in New Wilmington, a small, residential town in western Pennsylvania. New Wilmington is surrounded by wooded hills, farmlands, scenic country roads and streams. The town lies near several large cities. It is 65 miles north of Pittsburgh, 80 miles south of Erie, and 85 miles southeast of Cleveland. New Castle is nine miles to the south. The College is within a few miles of I-79, I-80, and the Ohio and Pennsylvania turnpikes. Nearby cities furnish transportation to all points by bus, and air travel is available from the Pittsburgh, Cleveland, Canton/Akron and Youngstown airports.

The College has a 300-acre campus with 24 major buildings designed to serve the educational mission. Its attractive and functional buildings and grounds facilitate the indispensable interaction between faculty members and students, thus adding to the quality of the education program. The acreage not claimed by the physical plant includes extensive fields, woodlands and a lake. A map of the campus is located on the inside back cover of this Catalog.

ACADEMIC BUILDINGS

OLD MAIN MEMORIAL, completed in 1929, is constructed of local sandstone in the collegiate Gothic style. It houses several of the College’s administrative offices, Wallace Memorial Chapel (a memorial to Westminster’s sixth president, W. Charles Wallace), and facilities for the departments of economics and business, and education.

THOMPSON-CLARK HALL. Built in two sections in 1893 and 1895, and renovated in 2000, this building houses the departments of communication studies, theatre, and art; English and public relations; modern languages; and the Learning Center.

RALPH McGILL MEMORIAL LIBRARY, dedicated in 1938, is in part the result of the interest and gifts of J.S. Mack. An addition to the building was completed in 1966, and a $6 million renovation was completed in 2009. The John L. Miller Room, named in memory of the Honorable John L. Miller ’23, member of the Board of Trustees from 1944-78 and president of the Board from 1964-78, is located on the third floor of McGill Library.

JAMES PATTERSON HALL. Completed in 1966, this multipurpose academic building was renamed in 1989 in honor of the first president of Westminster College. It contains facilities for the departments of music; political science; sociology and criminal justice studies; and religion, history, philosophy, and classics. Special facilities include the 1,722-seat Will W. Orr Auditorium (named for Westminster’s ninth president), the 300-seat Beeghly Theater, and the Art Gallery.

OLD 77, built in 1921 and remodeled in 1979, contains a basketball court, indoor running track, dance studio and stage, offices, and exercise room. The Marjorie A. Walker Recreation Center, including the latest in fitness equipment, was completed in 2003. Prior to 1951-52, the building was the site of varsity basketball games.
The final intercollegiate game on this court was the 77th consecutive home victory for the Titans. From this record, Old 77 takes its name.

MEMORIAL FIELD HOUSE AND NATATORIUM, a memorial to Westminster men who served and died in World Wars I and II, is the College’s main physical education building. Originally completed in 1952, it was extensively remodeled and expanded in 1975. The expanded facilities include the varsity gymnasium (named for former coach Charles “Buzz” Ridl ’42) with a capacity of 2,300 spectators, a natatorium (containing a collegiate-size swimming pool), faculty offices, classrooms, locker rooms for men and women, a trainer’s complex, four basketball courts for recreational and intramural use, and two racquetball courts. Two of the basketball courts have a synthetic floor suitable for tennis, volleyball, badminton, and indoor track practice. In 1994, a new fitness center was added to the Field House, providing students, faculty and staff expanded opportunities for strength and fitness training. The center includes areas of free weights and machines for strength training, as well as an area with aerobic exercise equipment for cardiovascular training. The Thomas V. Mansell Education Wing was added in 1999 and the James F. Edwards Wing was completed in 2001.

HOYT SCIENCE RESOURCES CENTER, a facility conceived and designed as the base for the total science program at Westminster, is named in honor of Alex Crawford Hoyt. The first section of the center was dedicated in 1974 and the second section opened in 1985. The center contains the information systems division (of academic affairs), Phillips Lecture Hall, a planetarium, observatory, electron microscope suite, and preschool facility, as well as classrooms, laboratories, offices, and research and supporting facilities for the departments of biology, chemistry, mathematics and computer science, physics, and psychology.

ACADEMIC SUPPORT RESOURCES

A wide range of library services and resources are offered by RALPH McGILL MEMORIAL LIBRARY, AUDIO-VISUAL SERVICES (located in Thompson-Clark), and the MUSIC LIBRARY (located in Patterson Hall).

The faculty and staff who work in these areas are dedicated to helping Westminster students and faculty find the information and resources they need. In addition to sessions on research skills embedded within courses like Inquiry and capstone, librarians are available for one-on-one consultations to help students find the best resources for their research papers and projects.

Westminster provides access to almost 173,000 books; more than 6,300 journals, magazines, and newspapers (5,700+ of which are available online); 5,000 videos; 2,700 music recordings; and over 1,200 music scores. And if that’s not enough, the Library works with other libraries to provide access to materials we don’t own through interlibrary loan and document delivery.

ACADEMIC COMPUTING: Westminster’s state-of-the-art campus network provides all students and faculty with access to campus, national and global information resources. Every student has an account on the campus network. This account gives access to electronic mail, shared folders, the Internet, and other tools for enhancing personal productivity and the learning process. Faculty and students...
also collaborate using an online learning management system that is available for use with all of their courses. Student access to the network and academic software applications is possible from three public computer labs in Patterson Hall, McGill Library, and Thompson-Clark Hall.

Students living in residence halls can connect appropriately equipped PCs directly to the network via wall jacks in every student room; in addition, a campus-wide wireless network provides wireless connectivity in all campus buildings.

Other campus resources include advanced technology classrooms equipped with large-screen projection systems and other audio/video components along with an instructor workstation providing access to the campus network and the Internet.

Scanning and color printing are available in certain locations. Numerous electronic resources in the library include the card catalog and Web-based research materials. A campus portal (my.westminster.edu) provides centralized links to applications and information used by faculty and students for coursework and other campus activities, and Westminster’s home page on the World Wide Web (www.westminster.edu) displays public information about the campus. On this website, a Computing page under the Resources tab has instructions and information about campus computing resources and student PC requirements.

AUDIO VISUAL SERVICES (AV): Audio Visual Services, located in McKelvey Campus Center, specializes in solving presentation challenges and transforming communication. Trained AV personnel are able to provide technical expertise to anyone who needs assistance.

AV Services houses, manages, and circulates more than 6,700 diverse film and video titles for educational use. AV also circulates more than 1,000 academic presentation devices. These items include audio and video recorders, digital cameras, projectors, professional lighting and backdrop systems, sound equipment, handheld response clickers, and a variety of other items. Individuals can request to be trained on any of this equipment as needed.

AV Services provides technical support for Westminster’s Smart technology classroom resources as well as the presentation technology in Mueller Theater and the Witherspoon rooms of McKelvey Campus Center. Each of these rooms is equipped with a large screen display system and a complete set of integrated audio/video components.

Other popular AV services available to students, faculty, and staff include a number of recycling and green AV initiatives; lamination; large-scale poster printing; full color CD/DVD mastering, printing and repair; media duplication and editing; format transfers; digital photography and editing; presentation consultation and training; and consumer product, copyright, and media information.

Additional information including online forms, AV news items, numerous help sections, training videos, extensive copyright information, links and search engines for various collections, and a full list of all AV policies can be found at www.westminster.edu/av.
Students, faculty, and staff can learn more about efficient use of AV media and technology for instruction, presentation, and personal growth through the AV Facebook community at https://www.facebook.com/WCAVS.

AV office hours are 8 a.m. to 4:30 p.m., Monday, Tuesday, Thursday and Friday and from 8 a.m. to 7 p.m. Wednesday. Questions or concerns can also be directed to avstaff@westminster.edu, or (724) 946-7188.

THE CULTURAL ARTIFACTS COLLECTION: The artifacts collection consists of approximately 1,100 coins and 1,800 other items emanating from a variety of geographical areas. Approximately 51 percent of the artifacts are from Egypt and 22 percent are Asian in origin. Among the oldest items in the collection are stone implements (circa 10,000 to 6000 B.C.), a Giza pyramid fragment (circa 2500 B.C.) and a cuneiform cone (circa 2000 B.C.). The human mummy in the collection dates from about 300 B.C. Of the dated artifacts, some 20 percent are pre-Christian, mostly Pharoanic Egypt. About 11 percent date from the first millennium A.D., with the remainder of more recent vintage. The size of items in the collection ranges from a few centimeters to about two meters. Composition materials range from glass to stone, leather, raffia, metal (including precious metals), paper, wood and cloth. The items in the collection are gifts from alumni and friends of the College. Many of the items were donated by former missionaries to Egypt, the Sudan, China, and elsewhere. Artifacts are on exhibit in the first floor lobby, the second floor lobby and the northwest corner stacks area of McGill Library, the second floor of McKelvey Campus Center, and the Hoyt Science Resources Center. Care and conservation of the collection is the responsibility of the Cultural Artifacts Advisory Committee and the curator of cultural artifacts.

OUTDOOR RESOURCES

The Outdoor Laboratory for Biological and Environmental Science is used for courses and research activity in biology, environmental science, chemistry, art and Inquiry. It comprises three distinct areas: Field Station, Brittain Lake and The College Woods. All facilities are open to the community.

FIELD STATION is a 55-acre plot acquired by Westminster in 1964 and appropriated specifically for field studies in 1980. Less than one mile east of the campus, this area connects to the main campus with the Frey Nature Trail, includes a comprehensive weather station, several buildings, including a Nature Center, shed with solar panels, Edmiston Memorial Labyrinth, lowland thicket, microforest, arboretum, successional and experimental plots, marsh, spring-fed stream, and Little Neshannock Creek.

BRITTAIN LAKE, on the southeast edge of the campus, encompasses approximately 15 acres. In addition to enhancing the beauty of the campus, it is used for ecology field classes, recreation, canoeing, and, on its perimeter, running. This lake was constructed in 1951, and is named in honor of J. Frank Brittain.

THE COLLEGE WOODS is a beech and maple forested area of 40 acres which lies south of the campus. The habitat is used for ecology field classes which require a mature woodland. A trail in the woods is available for recreational walking.
RESIDENCE HALLS

BERLIN VILLAGE, constructed in 2006 and 2011, provides townhouse-style apartment living for 100 male and female seniors. Each of the 25 suites in the Village houses four students in single rooms, has a full kitchen, two bathrooms, a living room and dining room.

BROWNE HALL, built in 1928, is named in memory of the College’s second president, Robert Audley Browne. It is made of stone and provides rooms for 107 students.

EICHENAUER HALL, completed in 1966, is a brick building providing suites for 256 students. It is named for John B. Eichenauer, a former trustee and generous benefactor of the College.

FERGUSON HALL, built in 1941, is named in memory of Westminster’s fourth president, Robert Gracey Ferguson. It is constructed of stone in Gothic design and accommodates 129 students.

GALBREATH HALL, completed in 1957 as a memorial to Westminster’s seventh president, Robert F. Galbreath, is a residence housing 152 students and providing food service for on-campus students.

HILLSIDE HALL, constructed in 1885, is the oldest building on campus and provides housing for 104 students.

JEFFERS HALL, built in 1940 and named for E. Tupper Jeffers, Westminster’s third president, is a gift of the late J.S. Mack. It has rooms for 24 students.

RUSSELL HALL, completed in 1952, is a memorial to the College’s fifth president, Robert M. Russell. It contains housing for 127 students.

SHAW HALL, constructed of brick and stone in 1960, was named for Walter C. Shaw, a generous benefactor of the College. It provides rooms for 149 students and contains the Mrs. Walter C. Shaw Student Health Center and the Counseling Center.

THOMPSON HOUSE, built in 1887 by Westminster College physics professor Samuel L. Thompson, is a beautifully restored Victorian home that houses 15 students.

SERVICE BUILDINGS

The ANDREW J. McKELVEY CAMPUS CENTER was completed in 2003, joining the former WALTON-MAYNE MEMORIAL UNION BUILDING, built in 1958, and CHARLES FREEMAN HALL, built in 1953. Among the amenities included in the three-story, 77,000-square-foot campus center are: the 300-seat Witherspoon Rooms overlooking Brittain Lake for catered dining, banquets or special events; the TUB dining facility; The Club Room, a non-alcoholic student pub; the Career Center; the College Bookstore and Gift Shop; the campus mail room; the campus radio and television broadcasting facilities; the 85-seat Mueller Theater; and meeting rooms and offices for student organizations (i.e., Student Government Association and Campus Programming Council, and student publications The Holcad, Argo, and Scrawl. the Lifelong Learning Program offices, public safety, Titan Card office, and student affairs administrative staff.

THE PHYSICAL PLANT SHOPS provide offices for the staff of the physical plant and facilities for the carpentry, electrical, painting, plumbing, and campus grounds equipment workshops.
HENLEY PAVILION, named for I. Miller Henley, longtime resident of New Castle, provides storage for the athletic department. A bequest from the Henley estate enabled the pavilion to be constructed. It is located near Westminster’s Brittain Lake.

REMICK ADMISSIONS HOUSE, completed in 1999, is named in honor of Oscar E. Remick, Westminster’s 12th president and chancellor who served the College from 1987-97. The two-story, 5,100-square-foot facility houses the admissions and financial aid departments.

WILEY ALUMNI HOUSE, named in honor of former trustee S. Donald Wiley ’50 and his wife, Josephine Hartman Wiley ’49, was acquired by the College in 2005. This renovated 19th century home houses the Office of Alumni Relations.

ATHLETIC FIELDS: Along with four tennis courts on the west side of the athletic area and six courts on the east side, the College has a number of athletic fields and an eight-lane, rubberized all-weather track, completed in 2001. There are fields for softball, baseball and soccer, and Burry Stadium for football and track & field. In addition, there are football and soccer practice fields and a sand volleyball court.

Student Life

Westminster offers the environment of a residential college where there is a close relationship between students, faculty and staff members. Most classes are small, most of the undergraduates live on campus, and many faculty live in the area. Faculty members and administrators are readily available for individual conferences with students. Westminster also views the undergraduate experience as a comprehensive one in which the academic and extracurricular programs complement each other. The complete development of students is the College’s aim.

Students may choose from a wide variety of activities, listed in the following section in more detail. Separate groups, such as sororities and fraternities (both social and honorary), residence halls, and special interest groups plan their own social activities. Most College dances, films, coffeeshouse entertainment, and live concerts are sponsored by the Campus Programming Council and Student Government Association for philanthropic endeavors.

Activities

CELEBRITY SERIES

Special performing arts events, including Broadway musicals and popular entertainers of national acclaim, are made available to the College community and the broader regional community that the College serves through the Celebrity Series program. All shows are staged in Orr Auditorium. For current year’s program, visit www.westminster.edu/celebrity.
RELIGIOUS LIFE

Campus ministry at Westminster College exists to encourage meaningful and contemporary expressions of faith. The ministry is carried on by a wide variety of individuals from each of the campus constituencies: students, faculty members, administrators and staff.

The chaplain’s staff are coordinators of the planning and implementing of events to enhance the dialogue between faith and learning. Through a variety of on- and off-campus events, members of the College community are offered frequent and varied opportunities to work toward realizing the values of the church-related college experience.

Worship is both a personal and community experience at Westminster. Under the direction of the College chaplain, two weekday Chapel services, Saturday night Catholic Mass, and Sunday night non-denominational worship, held in Wallace Memorial Chapel, are provided for the Christian community. A listing of off-campus worship opportunities for most faith traditions is available at www.westminster.edu/spiritlife/chapel/localchurchlisting.cfm. Annual retreats and off-campus volunteer opportunities are offered. Small groups are encouraged as a way for students to grow in their faith.

Chapel programs strive to reach out to persons of all faiths and are by nature pluralistic. The belief that various theological positions contain elements of truth and, therefore, are necessary for growth toward completeness, is a basic principle of the programs.

It is the goal of the Office of the Chaplain and Church Relations that those who so desire may find the atmosphere, program and encouragement where faith experiences allow our students the opportunity to develop spiritually.

THEATRE

Major theatrical productions are mounted each year in Beeghly Theater by the Department of Communication Studies, Theatre, and Art. Auditions are open to all Westminster students, regardless of major.

Past season highlights have included The Miracle Worker; Crazy for You; The Importance of Being Earnest; The Crucible; The Laramie Project; Kiss Me, Kate; All My Sons, Quilters; A Midsummer Night’s Dream; One Flew over the Cuckoo’s Nest; Once Upon a Mattress and Pride and Prejudice.

STUDENT PUBLICATIONS

Westminster College has three student publications. All students in good academic standing are eligible to compete for editorial or business positions on the staff of each publication. The editor-in-chief for each is selected after submitting an application and being interviewed by members of the Student Publications Committee. Each publication also has a faculty or staff adviser.

The Argo is the College yearbook. First issued in 1904, it is a bound, illustrated volume that chronicles Westminster student life.

The Holcad is the award-winning weekly student newspaper. Established in 1884,
it contains news, reviews and editorials on all aspects of campus life and of events taking place nationally and internationally that may be of concern to students. *Scrawl*, the Westminster College literary magazine, is published annually. Participation in its production is open to all students interested in working on the magazine staff. *Scrawl* is nationally affiliated with the American Scholastic Press Association.

**MUSIC**

Westminster offers a broad program in music, open to majors and non-majors alike.

The choral and instrumental programs at Westminster College include 250-300 students from all areas of the campus. Any student wishing to sing or play in an ensemble will be placed in an ensemble according to his/her interests and experiences. Students have 18 performing groups from which to choose. While ensembles are available to all with interest, some do require auditions for participation.

The Concert Choir, a select mixed ensemble of 50 students, performs on and off campus. The Chamber Singers is a select mixed ensemble of 16 students, which sings repertoire intended for smaller ensembles, such as madrigals, motets and vocal jazz. The Men’s Chorus and Women’s Chorus are open to all students and sing a wide variety of literature. An Opera Workshop is also offered for those with interest, combining students and community members.

The Titan Marching Band is an ensemble of between 100-120 musicians and band fronts including danceline and colorguard. The marching band performs for all home football games and for three to four high school marching band festivals or competitions throughout western Pennsylvania and eastern Ohio. A band camp is held before the academic year begins.

The Symphonic Band, an ensemble of between 80-90 musicians, is curricularly attached to the marching band (for credit) in the first semester (marching band through early November transforming to symphonic band for remaining semester and all of the second semester). This ensemble is open to all with instrumental experience and performs some of the finest established and new literature for large ensembles.

The Wind Ensemble is the top instrumental performance ensemble and is selected through audition. It is an ensemble of between 40-50 musicians (depending upon required instrumentation for literature being performed). This ensemble has twice been selected as a guest performance ensemble for the P.M.E.A. State Conference (2004, 2009). It performs literature of the highest musical and intellectual challenge, has premiered works and had seminars by highly regarded composers from throughout the nation.

Jazz Ensemble musicians are also chosen through audition. This ensemble is based upon the standard “Big Band” instrumentation (five saxes, four trombones, five or six trumpets and rhythm section). The Jazz Ensemble, which has featured numerous faculty and professional musicians, performs three major concerts per
year. It also performs for various area jazz festivals and other functions both on and off campus.

The Westminster College Orchestra performs works for both full orchestra and chamber groups. It is open to all string players, although wind musicians must audition. The orchestra performs three to four concerts per year on campus, offering a wide variety of repertoire to its musicians.

Westminster also offers a wide variety of chamber music opportunities: Flute Choir, Woodwind Ensemble, Saxophone Quartet, Brass Ensemble, Horn Ensemble, Percussion Ensemble, String Ensemble, Keyboard Ensemble, Handbell Choir. A pit orchestra is also needed for the bi-annual all-campus musical.

Opera Westminster is a select ensemble that is composed of music majors and other interested singers and community members. Admission is by audition. Spring semesters are reserved for opera scenes from the opera and operetta repertoire, and each student is featured in a scene or scenes according to his or her abilities. Every other fall, Opera Westminster holds auditions for a full-scale opera production. Scenes and the opera are sung in the original language providing the experience to work and sing in foreign languages.

Westminster supports its music activities with excellent physical facilities. Will W. Orr Auditorium, which seats 1,722, has a four-manual Moeller organ and two Steinway D Concert Grand pianos. W. Charles Wallace Memorial Chapel, site of the weekly Vesper services, contains a three-manual Moeller organ and a Steinway B Concert Grand piano. Old Main Tower houses a three-octave carillon. The music department is located in Patterson Hall. The music department library, which contains records, compact discs, audio and video tapes, and music scores, is available for use by all members of the College community.

Membership in all musical organizations is open to any qualified student, and academic credit may be earned for each semester’s participation. Private lessons with experienced teachers are available to all Westminster students.

ATHLETICS, INTRAMURAL SPORTS AND CLUB SPORTS

Westminster is nationally known for its excellence in intercollegiate athletics. The College is a Division III member of the National Collegiate Athletic Association (NCAA) and the Presidents’ Athletic Conference (PAC). The Department of Athletics sponsors intercollegiate varsity teams for men in baseball, basketball, cross country, football, golf, soccer, swimming, tennis, and indoor and outdoor track and field. The department sponsors intercollegiate varsity teams for women in basketball, cross country, golf, soccer, softball, swimming, tennis, indoor and outdoor track and field, and volleyball.

The Department of Athletics also offers programs in intramural sports, club sports, and various other fitness and recreational activities. Intramural sports for men and women have included basketball, touch football, racquetball, soccer, softball, tennis, ultimate Frisbee, and volleyball. Club sports have included equestrian, ice hockey, men’s and women’s lacrosse, and men’s volleyball.
**BROADCASTING/WEB**

Radio station WWNW, Titan Radio, broadcasts on 88.9 FM at 4000 watts. The station serves both the campus and all of Lawrence County in western Pennsylvania. It can also be heard online at the station’s website www.titanradio.net. In addition to playing commercial-free contemporary music, the station offers a variety of news and sports.

The Westminster Cable Network is available on two area cable systems reaching over 80,000 homes. Westminster Cable Network airs a variety of weekly news and sports programming, including live high school and college sporting events. The cable television program also supports a student-produced website at www.wcn247.com. Positions at the stations are filled on the basis of ability and performance. Auditions are required for all on-air talent.

**STUDENT GOVERNMENT**

All students, by virtue of their undergraduate registration and payment of fees, are members of the Student Government Association.

The Student Senate is the central representative and legislative organization of the Westminster College Student Government Association. Representatives are elected from each class. The Student Senate allocates part of the budget to student organizations and carries out other responsibilities as outlined in the Student Government Association Constitution. The Student Senators, through the various committees and in cooperation with the student affairs staff, plan student programs.

Westminster students participate in College governance by serving on a variety of standing College committees, councils and boards of the faculty. Student representatives to these bodies are elected by the student body and appointed by the Student Senate. The senate also nominates three student associate trustees to the College’s Board of Trustees.

**THE ALUMNI ASSOCIATION**

The Westminster College Alumni Association was chartered by the commonwealth of Pennsylvania in October 1931. All graduates of Westminster are association members. It is the mission of the association to provide a liaison between the alumni and the College, to encourage material, moral and spiritual support and provide resource people to assist the College in its academic, cultural, extracurricular and spiritual life. The events and activities of the association are guided by the leadership of the Alumni Council.

Homecoming, class reunions, regional activities, and the Westminster Fund are some of the opportunities offered to foster friendship among alumni and to provide forums for alumni service and education.
STUDENT SOCIETIES

Honorary and Professional Organizations

ALPHA PSI OMEGA is a nationally recognized theatre honorary fraternity. Membership requirements include: grades, acting, crew work and leadership.

BETA BETA BETA BIOLOGICAL SOCIETY was established at Westminster in 1948 as the Alpha Sigma chapter. Prerequisites for active membership include a major in the biological sciences, a minimum of sophomore standing, at least 12 biology semester hours with a 3.000 GPA, and an all-college GPA of 3.000. Associate membership is available to students of any major who have taken four biology semester hours and are enrolled in four more semester hours. Affiliate membership may be granted to anyone with an interest in biology.

ETA SIGMA PHI chartered its Gamma Mu chapter in 1954 as the honor organization for the classics. Membership is open to students who have completed eight semester hours in Greek or Latin with a 4.000 average, or 12 semester hours with a 3.000 average. This honorary was created to increase the knowledge of the art and literature of ancient Greece and Rome.

KAPPA DELTA PI is an international honor society in education. Delta Mu chapter was founded at Westminster College in 1937. Membership is restricted to the top 15 percent of those students seeking teacher certification. To be eligible, students must be at least a second-semester sophomore in a program leading to teacher certification, and present evidence of service to children and the profession. Individuals must fill out an official application and be selected for membership.

KAPPA MU EPSILON’s charter at Westminster (Pennsylvania Alpha chapter) began in 1950. The national organization was designed to further the interest in mathematics in schools that place their primary emphasis on undergraduate programs. Credit requirements include a 3.000 GPA, a 3.000 GPA in math classes, 12 completed math semester hours (including MTH 251), and current enrollment in a further math class. Purposes for the organization include aiding undergraduates in understanding the important role mathematics has played in the development of Western civilization, providing a society to recognize the outstanding achievement in mathematics study at the undergraduate level, spreading knowledge of mathematics, and familiarizing members with the advances being made in mathematics.

LAMBDA PI ETA, an honorary organization overseen by the National Communication Association, was organized on Westminster’s campus in 2001 with these purposes: (a) to recognize, foster and reward outstanding scholastic achievement in communication studies; (b) to stimulate interest in the field of communication; (c) to promote and encourage professional development among communication majors; (d) to provide an opportunity to discuss and exchange ideas in the field of communication; (e) to establish and maintain closer relationships and mutual understanding between speech communication studies faculty and students; and (f) to explore options for graduate education in communication studies.

LAMBDA SIGMA is an honor society with the purpose of fostering leadership, scholarship, fellowship and the spirit of service among the men and women of the sophomore class, and to serve and promote the interest of the College in every way possible. Prerequisites include a 3.000 GPA, one semester of course credits, and previous Westminster College leadership experience. Each year, Lambda Sigma inducts no more than 10 percent of a first-year class.

MORTAR BOARD recognizes senior students with leadership, scholarship, and service skills. This honor society was chartered on Westminster’s campus in 1955. Membership prerequisites include a grade requirement, previous college leadership experience, and a one-time membership fee.

MU PHI EPSILON, the international professional music fraternity, began at Westminster with the installation of its Phi Omega chapter in 1946. Prerequisites for membership include an overall GPA of 2.000 and a GPA of 3.000 in music classes, credits of a second-term first-year student, dues responsibilities, and a major or minor in music. Mu Phi Epsilon aims to advance music in America and throughout the world. Its purpose is to promote musicianship, scholarship and the development of friendship.
OMICRON DELTA KAPPA is an honor society designed to recognize those who have attained a high standard of leadership in collegiate activities. Prerequisites for membership include junior or senior standing and a GPA ranking in the top 35 percent of the class. Members must have one semester of leadership experience at Westminster College.

OMICRON KAPPA SIGMA, founded in 2006 at Westminster, is the honor society of the All-College Honors Program at Westminster College. The Greek letters stand for “the circle of wisdom.” The society is charged with cultivating a sense of community among Honors Scholars while promoting the intellectual life at the College through events both on and off campus.

PHI ALPHA THETA is the campus history honor society. The local chapter, Alpha Xi, was founded in 1946 and requires of its members a major or minor in history or 16 semester hours in history; a 3.100 average or better in history, and an all-college average of at least 3.000; and payment of national and local dues. Phi Alpha Theta was chartered to enhance the knowledge of and the participation in the scholarly pursuit of the discipline of history.

PHI SIGMA TAU was created on the Westminster campus in 1966 to encourage friendship among those who have displayed marked ability in philosophy, to popularize interest in philosophy among the general collegiate public, and to develop and honor academic excellence. The nationally affiliated organization includes such requirements as an overall 2.700 GPA, a 3.000 average in at least eight philosophy semester hours, second-semester sophomore standing, and payment of national and local dues.

PI DELTA PHI, the Delta Rho chapter, was established in 1965 to recognize students who have achieved high levels of proficiency in the French language. Prerequisites for membership include a GPA of 3.000 in French, a 2.800 overall average, and eight French semester hours beyond the intermediate level. Payment of national and local dues is also required.

PI SIGMA PI is a locally chartered honor society for superior students who are candidates for the B.A., B.S., and B.Mus. degrees at Westminster. Prerequisites for membership include a 3.600 average or better and completion of 80 semester hours.

PSI CHI is a national honor society in psychology, established at Westminster for students with a major or minor in this field. Psi Chi offers a variety of social and educational activities. It also informs students about graduate school programs in psychology. An overall GPA of 3.000 with a 3.000 in psychology classes is required. The organization also requires payment of dues.

SIGMA DELTA PI is an honor society for those who seek and attain excellence in the study of the Spanish language and in the study of the literature and the culture of Spanish-speaking people. Requirements for membership include an average of 3.000 in all Spanish courses and a ranking in the upper 35 percent of their class. At least two Spanish courses on the 300 or 400 level must be completed; one of these needs to be a course in Hispanic literature or culture.

SIGMA PI SIGMA is the honor society subgroup of the nationally affiliated Society of Physics Students. Prerequisites include 12 physics semester hours with at least a 3.000 GPA and payment of national dues.

SIGMA TAU DELTA, the international English honor society, was formed for literary and educational purposes. The society strives to confer a distinction for high achievement in English language and literature in undergraduate, graduate and professional studies. It provides cultural stimulation on the campus of Westminster College and promotes interest in literature and the English language in our surrounding community. Exemplary character and fellowship and high standards of academic excellence are promoted among members.

Special Interest Organizations and Groups

ALLIES, founded in 1999, is Westminster’s gay/straight alliance. Its first goal is to educate and promote awareness about gay, lesbian, bisexual, and transgender issues. Secondly, it exists to provide an open, supportive group for the discussion of such issues; confidentiality is respected. Membership is open to all members of the campus community including faculty and staff.
ALPHA PHI OMEGA is a national, coed service fraternity dedicated to leadership, friendship, and service with over 600 chapters across the country. Open to all students upon successful completion of a pledge period. A-Phi-O’s minimum requirements are 12 hours of service each term and payment of national and chapter dues. Annual projects include ushering, Quad-a-Thon, Canoe-A-Thon, and Shenango Home programs.

AMERICAN CHORAL DIRECTORS ASSOCIATION is a non-profit professional organization of choral directors from schools, colleges, and universities; community, church, and professional choral ensembles; and industry and institutional organizations.

AMERICAN RED CROSS ORGANIZATION seeks to enhance experiences in community service through participation and opportunities for personal and group activities to promote the American Red Cross.

ARGO—See Student Publications, p. 19.

ARTS CLUB is to encourage student, faculty, and community interests and in all areas of art. Students will be encouraged to actively participate in college related and extramural activities. College related activities shall encompass assisting faculty sponsor and the Art Department in the display, promotion, and awareness of art on campus. Encourage art in interdisciplinary activities on campus. This may include collaboration between the “Arts Club” and other student organizations. Extramural activities may include trips to museums or galleries, informal art collaborations, films, discussions, or guest lectures and workshops.

The BLACK STUDENT UNION is an organization concerned with educating the College and community about issues (current and historical, local, national and worldwide) regarding non-white ethnic backgrounds. Membership is open to all members of the student body, regardless of race, creed, age, religion or sex.

The CAMPUS PROGRAMMING COUNCIL (CPC) plans, promotes, and executes campus activities including musical acts, comedians, and off-campus activities. The committee organizes the annual Lil’ Sibs Weekend, sponsors the fall Gateway Clipper cruise and selects the weekend movies shown in Mueller Theater. CPC’s main purpose is to keep the student body entertained on weekends by organizing activities that students want. Membership is open to all students.

CHAPEL RETREATS is a reorganization of the Fall Retreat program from years past. Its purpose is to rally together all students for planning and implementation of campus ministry in a retreat setting, including Fall and Spring Retreat events, a session specifically for men as well as one planned for women only. Through these retreats, students are provided opportunities to pursue personal development in an off-campus setting with the goal of returning with renewed energy and commitment.

The CHEMISTRY CLUB is a student organization that is affiliated with the American Chemical Society. The club provides an opportunity for students to interact with individuals in the field, join in social activities, and participate in programs revolving around the aspects of chemistry.

The CHESS CLUB is for any interested students to have a place to gather to learn and play chess recreationally.

CIRCLE K INTERNATIONAL, affiliated with Kiwanis International, provides opportunity for in-service leadership training. Members participate in ongoing projects that serve both campus and community. The organization’s main objective is children’s welfare worldwide. The importance of good fellowship and high scholarship is stressed and membership is open to all students. Service hours count toward graduation requirements. Yearly dues are required of all members.

The COALITION FOR THE PROTECTION OF THE UNBORN (CPU) is dedicated to strengthening the anti-abortion cause and promoting anti-abortion ideals within the youth of America, especially on the Westminster College campus. The CPU’s main goal is to educate its members and raise awareness within the campus and local communities with regard to the issue of abortion and its effects on society through the use of speakers, events, and media. The CPU has no official political or religious affiliation and is open to all College faculty, staff, and full-time undergraduate students in good academic standing who have paid their student activity fee.
COLLEGE DEMOCRATS is a student organization for students who are interested in the ideals of the Democratic Party. The minimum GPA requirement is 2.000.

The COLLEGE REPUBLICANS group, associated with the state chapter, was founded during the spring of 2003. Their activities and responsibilities include promoting Republican candidates and ideals on campus and in surrounding areas. Any full-time undergraduate student who is in agreement with organization ideals may join.

COLLEGES AGAINST CANCER is a national collaboration of college students, faculty, and staff dedicated to fighting cancer, volunteering for the American Cancer Society, and improving college communities by initiating and supporting programs of the American Cancer Society.

The COUNCIL FOR EXCEPTIONAL CHILDREN chapter was developed to advance the education of individuals with exceptionalities and to promote related educational, scientific, and charitable purposes. Membership shall consist of students and faculty at the College.

CRAFTS CLUB is for any interested students to gather in a friendly environment to learn about and practice crafts including, but not limited to, knitting, crocheting, sewing, weaving, wood burning, etching, jewelry making, etc. When possible, members can contribute finished crafts to be sold for fundraising purposes or to be donated to charity selected and agreed upon by the group.

DANCE THEATRE, formed in 1978, periodically holds master classes by guest artists in addition to weekly technique classes. The Spring Dance Concert highlights the year’s activities and requires auditions to perform. The company is open to all students interested in dance and movement.

DISABILITY AWARENESS CLUB was created to spread awareness of disabilities and their true meaning. They will strive to dispel stereotypes, separate fact from opinion, and provide information about all disabilities including what they mean and how they are overcome. Membership is open to all Westminster students.

ECONOMICS CLUB offers students new insight into the field of economics, provides exposure to post-graduation options in the field, exchanges ideas with faculty about course selection/applying to graduate school/careers in the field, etc., and exposes students to current economic issues both with the United States and abroad.

ENACTUS (formerly known as Students in Free Enterprise or SIFE) is a club designed to provide students an opportunity to develop leadership, teamwork, and communication skills through learning and practicing principles of free enterprise. Market economics, business operation, and the attitudes and ethics required for success in the global market are topics of exploration. Membership is open to students of all majors.

The EQUESTRIAN CLUB/TEAM, which competes in the Intercollegiate Horse Show Association (IHSA), is open to the general student body. The club offers students the option to compete or further their horsemanship skills. Membership requires a 2.000 GPA.

FELLOWSHIP FOR CHRISTIAN ATHLETES encourages men and women to integrate the Christian faith in their athletic involvement. This nationally and locally chartered organization began at Westminster in 1969.

The FILM CLUB aims to facilitate discussion and promote a greater appreciation of cinema by screening classic and contemporary films on campus for its members.

FIRST BOOK was developed is to give disadvantaged children the chance to read and own their first new books by developing a team of persons who seek to encourage reading and build resources for literacy efforts in their community. The main mission shall be to increase literacy levels of at-risk children in the New Wilmington area.

FRATERNITIES: National social fraternities with chapters at Westminster College are Alpha Sigma Phi, Phi Kappa Tau, Sigma Nu, Sigma Phi Epsilon and Theta Chi.

FRENCH CLUB is to promote French language and learning outside of the classroom. Its goal is to give students a place to learn together and complement their classwork, but ultimately have fun in the process. French Club is open to anyone with a general interest in the French language, but will also serve as a way to generate interest in the French program.
FRESH START, a group of upperclass students who executes activities for incoming first-year, transfers and international students in order to make the first days of college an easier experience. A junior coordinator is selected annually, while the senior coordinator position is assumed each year by the previous year's junior coordinator. Students must interview for staff positions, have a 2.250 GPA, have previous experience with College organizations, and limited disciplinary action.

GAMING GUILD will provide participants of, and those who show interest in, various types of interactive gaming, including but not limited to, video games, board games, card games and tabletop role playing games, a venue in which to meet, organize, and participate in said forms of games. The GOSPEL CHOIR gives students and faculty an opportunity to express themselves through songs of praise and worship. Through these songs they minister to others about God’s love for each and every one of us. The choir also hopes to bring about ethnical diversity and bridge gaps between denominations.

GREEK WEEK COMMITTEE plans, develops, and executes all Greek Week activities that are held in April of each year. To serve on the committee, one must be an active member of one of the five sororities or five fraternities on campus.

GREEN PARTY, formed at Westminster in the spring of 2002, subscribes to the 10 key values of the Green Party of the United States: grassroots democracy; social justice; ecological wisdom; nonviolence; decentralization; community-based economics; feminism and gender equity; respect for diversity; personal and global responsibility; and future focus. Membership is open to full-time undergraduate students who agree with the purpose and object of this organization. Associate membership is available to graduate students, alumni, and members of the community.

HABITAT FOR HUMANITY, a non-profit Christian organization, exists to help eliminate substandard housing in less fortunate parts of the world. Payment of local dues is required.

HOLCAD—See Student Publications, p. 19.

The ICE HOCKEY CLUB seeks to further develop the skills of the game and to promote the ideas of sportsmanship among the College community.

INDOOR COMPETITION GUARD will promote the skills and techniques of color guard, as well as sportsmanship through competition; promote artistic development through participation and exposure to the necessary strengths and talents required for color guard performance; participate in at least two color guard competitions, usually in a high school atmosphere; to use said organization as a recruitment tool for new color guard members for the Westminster College Titan Marching Band and for the proposed organization.

INTERFRaternity COUNCIL (IFC) coordinates all fraternity activities at the College. Participation prerequisites include membership in one of the campus fraternities and a 2.000 GPA. The president of IFC must be a member of the organization for one year before taking office.

The INTERNATIONAL CULTURES CLUB was reorganized during the 2004-2005 academic year. Its purpose is twofold: to promote knowledge of languages and cultures of other nations; and to heighten awareness of everything that encompasses cultures of foreign states, including what shapes their policies and decisions towards other nations, in an effort to better understand their worldview.

JAPANESE ANIME CLUB aims to introduce the Westminster community to the world of Japanese anime and the ability to view it. The group hopes to broaden the understanding of Japanese culture, particularly pop culture, in order to better appreciate diversity and differences of world cultures.

THE JUBILEE COMMITTEE consists of a core group of students who are interested in learning about how their faith can be integrated with their major and life in general. They are also responsible for helping recruit other students and friends to attend the Jubilee Conference in Pittsburgh during February.

The KARATE CLUB studies a hard style of Japanese karate called Shorin Ryu. Students learn to perform various punches, blocks, and kicks, as well as katas (forms) with the aim of developing confidence, good technique and power. Everyone is welcome; no dues or requirements needed.
LACROSSE MEN & WOMEN seeks to further develop personal skills in the game of lacrosse and to promote ideas of sportsmanship among the Westminster College community.

The MOCK CONVENTION COMMITTEE is designed to plan and organize a mock replica of the national party convention for the political party not currently in office. The convention is held each presidential election year with students forming state delegations to rally their candidate for the presidency.

MODEL UNITED NATIONS at Westminster College is entrenched in its principles and manifested in all of its activities. Main goals are of an educational nature, particularly with regards to learning about the world, its numerous cultures, social and political systems, and fostering understanding and active cooperation among people of all backgrounds. MUN takes upon itself the responsibility for preparing its members to be leaders of the greater global community, whether at the local or international level.

NEUROSCIENCE CLUB will provide opportunities for individuals interested in neuroscience and related areas to expand their knowledge of the field and the research occurring within it.

NEWMAN CLUB/CATHOLIC CAMPUS MINISTRIES is the campus community of Catholic Christian students dedicated to promoting Catholic identity and fellowship. Newman Club is open to all students.

PANHELLENIC COUNCIL (PANHEL) is a national organization with a chapter at Westminster that was created to facilitate a spirit of communication and cooperation between sororities. Membership in one of the campus sororities is required.

PENNSYLVANIA COLLEGIATE MUSIC EDUCATORS ASSOCIATION (PCMEA) was designed to promote statewide communication among music educators. Prerequisites for membership include national dues and invitation by chartered members of the group.

PHILOSOPHY CLUB seeks to promote philosophic dialogue among students at the College through weekly meetings (open to the entire campus community) and through attending philosophy conferences. Opportunities will be provided for students who are taking a basic philosophy class or students who major in philosophy to discuss topics addressed in class in an outside-the-classroom setting.

The PRE-DENTAL SOCIETY was organized to provide support for students interested in dentistry. Members are encouraged in academic achievement and urged to participate in activities relating to dental medicine both on and off campus.

The PRE-MEDICAL SOCIETY was organized to encourage academic achievement through peer interactions; participate in activities in areas of medicine both on- and off-campus; and to provide a better understanding of what is necessary to pursue a career in the medical field.

PRE-VETERINARY SOCIETY, founded in 2007, seeks to encourage student interests in achieving goals and advancing studies in the field of veterinary medicine.

PSYCHOLOGY CLUB, formed in 2005, encourages participation in and contribution to psychology-related activities by building a network of peer support.

PUBLIC RELATIONS STUDENT SOCIETY OF AMERICA (PRSSA) is comprised of undergraduate and/or graduate students interested in public relations. Bi-weekly meetings, guest speakers, and special events allow students to further their knowledge of PR and gain valuable experience in the field. Only those students enrolled at Westminster College of Pennsylvania shall be eligible for membership in this chapter.

SCRAWL—See Student Publications, p. 19.

SEEKERS COLLEGE FELLOWSHIP meets weekly with the purpose of growing in faith by building relationships through speakers, group discussions, worship and events. A core group of 8-16 students, selected through application and interview process, facilitates small groups, then plans and leads each meeting.

The SIERRA STUDENT COALITION is an organization comprised of members of the Westminster community with the objective of collectively working to cultivate positive interaction between the College and the natural world. The group works to achieve this objective through efforts to increase environmental literacy throughout the campus, community and curriculum;
through efforts to encourage appreciation of the environment through direct interaction between the SSC and the natural world; and through efforts to alleviate the impact of the campus and community on the natural cycles that maintain the beauty and habitability of planet Earth.

The SKI and SNOWBOARD CLUB provides an opportunity to explore and pursue the sport of alpine skiing both on a recreational and advanced levels. Formed to unite people who share the common bond of skiing, the club is open to anyone in the campus community with an interest in this sport. Proof of major medical insurance coverage is required.

SOCIETY OF LEADERSHIP AND SUCCESS exists to assist college students in creating the lives they desire by helping them discover what they truly want to do, and to give support and tools with which to achieve these goals.

SOCIETY OF PHYSICS STUDENTS was created to promote the appreciation of physics. Prerequisites for membership include good academic standing and an interest in science. Members do not have to be physics majors.

SOCIOLOGY INTEREST GROUP (SIG) began its charter at Westminster in 1975. The purpose of SIG is to give students an opportunity to become more familiar with social issues facing the world today. With no prerequisites for membership, SIG is open to all students.

SORORITIES: National social sororities with chapters at Westminster College are Alpha Gamma Delta, Kappa Delta, Phi Mu, Sigma Kappa, and Zeta Tau Alpha.

THE STUDENT ALUMNI ASSOCIATION (SAA) provides students with the opportunity to learn about the benefits of a lifelong connection with Westminster College. Students meet and work with alumni as they assist in the planning and implementation of campus and alumni events and activities. The Westminster SAA is a member of the ASAP National Network.

THE STUDENT-ATHLETE ADVISORY COUNCIL comprises selected representatives from each of Westminster’s varsity sport teams. The purpose of the council is to promote efficient and effective communication between the student-athlete population and the athletic department administration. The committee also works to implement programs for student-athletes that encourage academic achievement, health promotion and social responsibility, and campus and community service.

THE STUDENT PRE-LAW ASSOCIATION aims to provide support and a forum for students interested in attending law school and pursuing a legal career. The main focus of the group is to provide information concerning options available in a legal career, the process of applying to and choosing a law school, and the kinds of undergraduate course work and experience that provide the best preparation for law school. Membership is open to any Westminster student (full- or part-time) who has an interest in the legal profession and wishes to become better informed and enhance her/his qualifications for law school. Annual dues are required.

THE STUDENT WESTMINSTER ADMISSIONS TEAM (SWAT) began in the fall of 1988 to open communication between prospective students of the College and enrolled students. SWAT, which evolved from a student recruitment committee of the Student Alumni Association, allows current students to give prospective students their views of Westminster. Through talking to current students, prospective students have an opportunity to ask questions about the College. Prerequisites include a 2.500 GPA and preferably some leadership experience on the Westminster campus.

STUDENTS AGAINST DESTRUCTIVE DECISIONS (SADD) is an organization dedicated to the safety of Westminster students. We provide transportation to and from weekend social activities to keep the community and student body safe from those who choose to make destructive decisions. SADD is open to the entire campus and all are encouraged to take part in this beneficial organization. No dues are required, nor is there a GPA requirement.

The ULTIMATE FRISBEE CLUB was established in 2004 for the purpose of promoting the sport in a team atmosphere and to provide a learning and competitive environment for both men and women.

VOLLEYBALL CLUB promotes the game of volleyball, accomplish sportsmanship, team unity, leadership, participation and to play the game against other regional and collegiate teams.
The WESTMINSTER HISTORY INTEREST GROUP (WHIG) was revived in 2004. WHIG exists to promote the discipline of history, encourage scholarly research and provide opportunity for historical dialogue between students of all majors. Events held will include coffeehouse nights, a film series, and opportunities to interact with professionals in the field. In order to promote field experience outside the classroom, trips to sites of historical interest will be scheduled. WHIG is open to students of all majors. There are no prerequisites for membership.

More information on each of these groups can be found in the Student Handbook.

**Student Services**

**STUDENT AFFAIRS OFFICE**

The central staff of the Office of Student Affairs consists of the vice president, associate deans, and the assistant director of residence life. The office has responsibility for the planning of the new student orientation program; administration of the residence life program; judicial system; coordination of student activities and organizations; supervision of the Student Health Center; diversity; counseling services; disability resources; student publications; Greek life; the Career Center; public safety; leadership development; and assistance with international student advisement.

Services for students who have special needs because of a disability are also available. Students should contact the Office of Disability Resources if such services are required.

**CHAPLAIN’S OFFICE**

The College chaplain and his staff coordinate religious life on our campus including worship, service, and fellowship programs involving students, faculty, and staff, both on and off campus. The work of the Chapel Office is to work with people of all faith traditions (see p. 19).

**CAREER CENTER**

The Career Center staff helps students, from first year through the senior year, to make informed decisions about careers and majors. Career counseling, interest inventories, career library resources, FOCUS II (a computerized career guidance program), guest speakers, mock interviews, career shadowing and informational interviews with alumni are some of the resources available to students and alumni.

The internship coordinator assists students in arranging internships. An annual internship event offers students the opportunity to meet with employers on campus. Students may participate in more than one internship during their college careers (see p. 62).

The Career Center’s home page (www.westminster.edu/career) provides information on the job search, internships, job fairs, Internet links, and a calendar of activities.

Career Center staff offer assistance to students who plan to apply to graduate school. Information about graduate programs, an appropriate timeline for applying,
writing the application essay, how to study for the entrance exam, etc., is provided throughout the year.

“Senior Seminar” is a program through which seniors receive instruction on interviewing techniques, networking, and using technology in the job search. An annual etiquette dinner and style show help seniors prepare for the world of work. Workshops on résumé/cover letter writing, interviewing, and job search skills are offered frequently throughout the year. The staff assists students in creating electronic e-portfolios.

On-campus recruiting and job fairs provide opportunities for students to meet with employers.

The Career Center provides weekly email listings of full-time, part-time, and internship positions. These programs and services are available to all Westminster students and alumni.

COUNSELING SERVICES

The emotional health and well-being of students is very important to the College. Westminster provides on-campus confidential, no-fee counseling services to all undergraduate students by a professional counselor. The counselor is available from 9 a.m.-5 p.m. weekdays at the Student Health Center. Counseling is available for a variety of personal concerns including, but not limited to, depression, anxiety, adjustment problems, self-esteem, stress management, relationship and family issues. Also provided are educational programs. Off-campus referral sources are available for specialized treatment needs. For more detailed information, visit the Counseling Services page on the Westminster website.

OFFICE OF DISABILITY RESOURCES

Westminster College is committed to providing services and resources to remove unnecessary barriers for students with disabilities, as consistent with the Americans with Disabilities Amendments Act and Section 504 of the Rehabilitation Act. Students with disabilities who are seeking options to address any potential physical and programmatic barriers, which includes academic accommodations, should contact the director of Disability Resources for further information. The director will meet with the student to discuss his or her demonstrated concerns, Westminster’s related requirements, relevant resources, and potential options to appropriately address the issue(s). Appeals for disagreement with the disability determination should be made in writing to the Dean of Student Affairs.

For more information visit the Disability Resources section under the Student Services section on the Westminster website.
OFFICE OF DIVERSITY SERVICES

The Office of Diversity Services serves a variety of functions at Westminster College. Its main purpose is to advance diversity and promote a positive climate for differences of race, gender, sexual orientation, age and religion on campus and in the community. Among its priorities are the recruitment, retention, and success of students of diverse cultures and racial backgrounds.

The diversity director’s goal is to prepare students to become effective leaders and productive citizens in the culturally diverse 21st century. With student input, the staff offers activities and experiences that nurture respect for the dignity of all human beings, as well as an appreciation for individual differences.

FINANCIAL AID OFFICE

Westminster College endeavors to provide financial assistance to students through scholarships, grants, work opportunities, loans, and combinations of these various forms of aid, in order to balance the needs of all students. For detailed information about the various forms of financial aid administered by this office, see the section titled Admission and Financial Information, p. 37.

LEARNING CENTER

The Learning Center offers students instruction which would not ordinarily be included in their college classes. Students may be referred by a professor from a particular discipline or they may choose to seek assistance on their own volition. The center offers the following services: helping students identify strengths and weaknesses in their reading and writing, helping students establish strategies for strengthening these skills, assisting students with discipline-specific concepts, and offering in-depth academic support to honor students desiring a more challenging exchange.

The Learning Center is a free service for all Westminster students and incorporates services that are corrective and developmental in nature. Students requiring help with basic skills improvement, students wanting to improve already existing skills, and students desiring to strengthen advanced skills are encouraged to use the service.

STUDENT HEALTH CENTER

The Student Health Center, located in Shaw Hall, provides health care and health education to all full-time Westminster College students. Registered nurses at the Student Health Center provide primary care during specified hours. A physician or physician assistant is available to see students at the Health Center for one to two hours each weekday. The Student Health Center provides health education programs to increase the students’ awareness of their role in maintaining a high level of wellness, to enhance their ability to make health-related decisions, and to empower them to be informed consumers of the health care system.
CAMPUS SAFETY AND SECURITY

Westminster College maintains a staff of security personnel to assist and protect individuals, to protect College property, to control parking and traffic, and to report infractions of the Student Code of Conduct. An escort service is provided for students on campus by uniformed public safety personnel. The staff provides these and other services to the campus community 24 hours a day, year round. In addition, this office is also a source for information about the campus and the surrounding community. Staff members strive to provide a safe and stable environment for the Westminster community by encouraging personal safety and security awareness, thus reducing the opportunity for crime.

All student-owned/operated motor vehicles must be properly registered with the College before parking anywhere on campus. Vehicle registration permits must be purchased at the information desk or the public safety office in the McKelvey Campus Center.

COLLEGE PUBLICATIONS

College publications such as this Catalog, Student/Faculty Information Directory, New Student Directory, Westminster Magazine, Westminster Weekly, semester course schedules, and various special-interest and departmental publications are published through the Office of Communication Services.

The Student Handbook lists information pertaining to student life and its policies and procedures.

Student Life Policies

JUDICIAL SYSTEM

Westminster College affirms that its educational purposes require an atmosphere characterized by rational inquiry, discussion, and standards of acceptable behavior. These regulations, which reflect the values to which the College is committed, are designed to help insure order in the College community, to protect the rights of community members, and to create an environment which can enhance the opportunity for personal growth and development.

The College reserves the right to take disciplinary action against students or student organizations who violate these regulations. To that end, the College judicial system has been established to address alleged violations of College policies. The judicial system’s membership, comprising students, faculty and administrators, is committed to conducting fair hearings which observe and respect students’ procedural and substantive rights. The judicial process is designed to be a means by which all students can learn the value of their rights and realize the importance of their individual responsibilities as citizens in the campus community. For details on the Student Code of Conduct and student rights and responsibilities, see the Student Handbook.
DIRECTORY INFORMATION

Westminster College abides by the Family Education Rights and Privacy Act as amended. Under the provisions of the Act, the College regards the following as directory information which may be released without the consent of the student or the student’s family: name, home or campus address and telephone listing, parents and/or guardian’s name, date and place of birth, dates of attendance, enrollment status (full- or part-time), class, major field, campus honors, participation in officially recognized activities, height and weight of members of athletic teams, degree received, date of graduation, and educational institutions most recently attended. The College’s Records Policy is fully described in the Student Handbook.

Students may withhold directory information for a given academic year in any or all of the directory information categories by requesting in writing at the Office of Student Affairs within the first 15 class days of the first semester attended in a given academic year. A new form must be completed for each academic year.

HOUSING

Westminster College has a policy of nondiscrimination on grounds of race, color, creed, and sexual orientation. This policy applies to, among other things, its campus housing.

Westminster College housing policies are outlined in the Student Handbook and the Westminster College Housing Agreement. All students are required to live in a College residence hall through their senior year unless they are living at home with at least one parent/guardian (commuter), have been given permission from the College to live at their fraternity house, or have been selected to live off campus through the off-campus lottery held each spring. Ordinarily, residence hall rooms are assigned with the understanding that they will be rented for the entire academic year. Residence halls are closed during regular College recesses.

Students wishing to change status from residential to commuter must provide a letter from the student’s parent or legal guardian verifying the status change. No room refund will be given without proper notification to the Office of Student Affairs. Students residing off campus without first receiving permission from the College will be subject to the College judicial process. Potential sanctions may include restitution of room and board costs.

Junior and senior (after their second year living on campus) men who are members of fraternities and who qualify under the College’s guidelines may live in their fraternity houses as long as they designate this choice before the room-drawing process in the spring.

The implementation and coordination of this policy are under the direction of the associate dean of student affairs.
BOARD

All men and women living in College residence halls are required to be part of the Resident Dining Program. Upperclass fraternity members living on campus may eat in their fraternity eating clubs on a space-available basis. Other resident students with medical conditions may appeal to be excused from the College’s board plan. Written verification from a physician of medical conditions that preclude eating in the cafeteria is required, but does not guarantee exemption. Sodexo does provide special diets and will make every effort to accommodate student needs. Appeals are to be directed to the director of Disability Resources.

MOTOR VEHICLES

Any student may bring a car or motorcycle to Westminster, but must register it at the McKelvey Campus Center Information Desk within two business days of bringing the vehicle to campus. The annual registration fee is $70 per motor vehicle. If a student does not bring a vehicle to the College until the Spring Semester, the registration fee is only $35. If a vehicle is registered for the current year and is replaced by another vehicle for any reason during this registration period, a replacement sticker must be obtained as soon as the vehicle is brought to the campus. There is no charge for a replacement sticker, but there is a charge for replacement of lost decals.

On-campus parking is limited and the number of permits issued to each class level is capped. Advance sale of permits to upperclass students begins in April of each year. Beginning June 1, incoming first-year students are eligible to purchase parking decals. At the start of the Fall Semester, decals are sold to all classes on a first-come, first-served basis.
ADMISSION REQUIREMENTS

EXPENSES

FINANCIAL AID
Admission and Financial Information

Admission

Westminster seeks students who possess the educational background, academic ability and motivation that indicate potential for success in college. The College makes every effort, through careful admission procedures, to insure that its programs and traditions, and student capabilities, interests and needs are well matched.

Forms for admission to Westminster may be obtained from the admissions office or online. Applicants for admission may apply after the end of the junior or during the senior year of high school. Students with excellent qualifications may be accepted on the basis of a three-year secondary school record and satisfactory junior year Scholastic Aptitude Test or American College Testing Program examination scores. In certain cases, final decisions concerning admission will be withheld until additional academic information is received. **Westminster reserves the right to rescind any offer of admission.**

Adult applicants who wish to apply for admission to start or complete a degree must apply using a form found online or available at the Office of Adult and Graduate Studies. *(See p. 39 for adult student admissions details.)*

Westminster is authorized under federal law to enroll non-immigrant alien students.

Requirements for Admission

The Office of Admissions will consider both the nature of the courses and the quality of work indicated on the secondary school transcript submitted by the applicant. Accelerated or “honors” courses are encouraged, and students are strongly discouraged from taking a less challenging selection of courses in the senior year. During transcript evaluation, a student’s grade point average is recalculated based upon college preparatory academic units the student has completed. The nature and number of academic units required for admission to Westminster are described in the following paragraphs.

In general, students admitted to the College must have completed a secondary school course of 16 units (12 units in grades 10, 11, and 12) and have received a high school diploma. Each new student is required to take the Scholastic Aptitude Test of the College Entrance Examination Board or the American College Testing Program examination, preferably during the junior year in high school or early in the senior year. These achievement tests should be taken by the time the student graduates from high school.
Applicants for admission to all degree programs must present at least 16 units for entrance, including the following:

- **English**: 4 units
- **Foreign Language**: 2 units
- **Social Studies**: 2 units
- **College Preparatory Mathematics**: 3 units
- **Laboratory Science**: 2 units

13 units

The remaining units should be within these academic areas. Most applicants offer more than the minimal requirements. For chemistry, physics and mathematics majors, four units of mathematics, which must include plane geometry, are preferable to the minimum of three. The two units offered to meet the foreign language admission requirement must be in the same language.

**Application Fee and Reservation Deposit (2012-2013)**

A nonrefundable application fee of $35 should accompany the application for admission. The fee is waived for online applicants.

When an applicant is accepted for admission, a reservation deposit of $200 is required to hold the applicant’s place on the incoming student roster. This deposit is due by the candidate’s reply date of May 1. A student granted admission after May 1 must submit the $200 nonrefundable deposit within 30 days of the date of the acceptance letter. This deposit is nonrefundable even if the applicant cancels.

For applicants who matriculate at Westminster, this $200 deposit will be retained until the student graduates or withdraws, at which time this amount may then be returned.

Veterans follow the same general procedure as outlined above. The College cooperates with veterans in regard to benefits by providing essential information, providing and receiving applications, and forwarding these to the Veterans Administration. Evidence of honorable discharge will be required by the College.

**Advanced Placement/Credit by Examination**

The College participates in the Advanced Placement program of the College Entrance Examination Board. Students who have taken and satisfactorily passed college-level courses in high school and who have taken the Advanced Placement Examination of the Educational Testing Service may apply to the College for credit or advanced placement in these subjects. Contact the Office of Academic Affairs for more details.

Credit may also be earned through the CLEP and International Baccalaureate programs. Contact the Office of the Registrar for more details. Departments may also give advanced placement, on the basis of other evidence or proficiency, with or without credit, as circumstances warrant.
Transfer Students: Advanced Standing

A student who has attended another college must present an official transcript from all colleges attended as well as all the credentials required of those who enter directly from high school. A transfer student’s total college-level record should average a 2.5 or better. No single grade lower than C- may be accepted for Westminster credit. Courses which are graded on a pass/fail or satisfactory/unsatisfactory basis will not be accepted in transfer. Westminster only accepts credits taken at regionally accredited colleges and universities. Courses are accepted and evaluated on a course-by-course basis to determine course equivalency based on academic department standards. Grades and points earned for transfer work will not be included in the Westminster College grade point average (GPA). Academic standing (i.e., probation and suspension) at Westminster College is calculated and determined using only grades earned at Westminster College.

An applicant whose transcript shows that the student has been honorably dismissed and is eligible to re-enter in good standing the institution last attended may be admitted to Westminster and granted such advanced standing as the credits warrant. Evaluations of credits from other institutions are conditional, depending upon the satisfactory completion of one semester at Westminster. After the first semester of attendance, athletic eligibility is determined only on the basis of grades earned at Westminster College and number of semesters (including transfer semesters) the student has attended college (see p. 68 for required minimum GPAs for good academic standing).

Westminster has articulated agreements with Butler County Community College, Community College of Allegheny County, and the Pennsylvania State University—Shenango Campus to facilitate transfer students. Interested students should contact their home campus for more information.

Adult and Graduate Studies

Adult studies at Westminster includes programs for undergraduate, post baccalaureate, and graduate level studies.

LIFELONG LEARNING PROGRAM (LLP): The Lifelong Learning Program (LLP) is an undergraduate program designed for non-traditional adult students who wish to begin or complete an undergraduate degree. Non-traditional students are generally defined as those over the age of 23, but students may be considered non-traditional based on marital status, employment status, role as a parent or primary caregiver, if they are self-supporting, or have served in the military.

Students may take classes during the day, evening, or a combination of both. Daytime classes meet for the length of a 16-week semester, either two or three times per week. Some evening classes are semester length as well, and are usually one night per week. Additionally, Lifelong Learning students may enroll in classes in an accelerated evening program which offers two blocks of classes in one semester—each an eight-week session that meets once a week with the balance
of the classwork done outside of class using online learning tools. These schedule options provide flexibility to balance an academic program with work and home responsibilities. A six-week summer session also includes day, evening classes, and blended learning classes.

Four majors (accounting, business administration, English, and public relations), and a minor in communication studies can be completed through evening coursework and 41 majors can be completed through daytime scheduling.

Admission is based on a review of the high school transcript and all previous college transcripts (if applicable). College entrance examinations are not required.

Prospective students may meet with the Adult and Graduate Studies director for an assessment of transferable credits. An adult undergraduate study application is available online at www.westminster.edu/adult or by request at the Office of Adult and Graduate Studies.

DUAL ENROLLMENT: The High School/College Dual Enrollment Program offers qualifying high school and home-schooled students the opportunity to prepare for the future by taking college classes while still in high school. Interested students should contact their high school guidance counselor or call the Office of Adult and Graduate Studies at (724) 946-7353 for information about the special conditions that apply.

POST-BACCALAUREATE STUDIES: Post-baccalaureate certification in elementary education or certification in a subject area for secondary education is designed for a candidate who currently possesses a bachelor’s degree and would like to be certified to teach in public schools. Certification is offered for Early Childhood PreK-4 and Special Education PreK-8 or in Secondary Education. The candidate’s undergraduate degree does not need to be in education.

Admission into this certification program is based upon a review by the Adult and Graduate Studies director and the Department of Education. Requirements to be considered for admission:

1. Completed application and application fee
2. Interview with the LLP director and Department of Education representative.
3. Essay explaining why you want to teach.
4. 3.0 GPA in the undergraduate degree program
5. Two letters of reference addressing candidate’s potential as a teacher
6. Official transcripts from all previous colleges and/or universities attended.

An admission decision will be made after a personal interview and the post-baccalaureate certification application, a $35 non-refundable application fee, and other required documents are received by the Office of Adult and Graduate Studies.

Students desiring to be certified in secondary teaching in areas of certification (biology, chemistry, English, French, general science, Latin, mathematics, physics, social studies or Spanish) will have to complete all requirements for the major as determined by a departmental review of their previous work in the particular subject area as well as complete all required education courses for certification.
Successful candidates will be recommended for certification after successful completion of all required coursework and other departmental requirements, successful completion of required Praxis Series Examinations, and submission of all required health and safety clearances for working in schools.

Specific questions may be addressed to the director of the Adult and Graduate Studies program by calling (724) 946-7353 or via email at conted@westminster.edu.

**CONTINUING EDUCATION PROGRAM**: Non-credit classes at Westminster College can be taken through the continuing education program. These classes and workshops are available for personal enrichment, fitness, professional development, and computer skills. There are no entrance requirements and classes are open to all interested students. Some continuing education classes are offered for children. Schedules are published for fall, spring, and summer classes.

Continuing education classes are also offered for onsite business or corporate training. Contact the Office of Adult and Graduate Studies for details.

**GRADUATE STUDY**: A Graduate Catalog and all information concerning the graduate program at Westminster are available at the Office of Adult and Graduate Studies.

Any Westminster student who, at the beginning of the final semester of undergraduate study, needs 12 or fewer semester hours to fulfill the requirements for the bachelor’s degree may, with the permission of the adviser and the director of the Graduate Program, take graduate courses.

To take this option, students must apply for admission to graduate study through the Office of Adult and Graduate Studies. Courses completed at the graduate level may be credited toward the Master of Education degree and toward post-graduate teacher certification requirements, but no course may be counted for credit toward more than one degree. Applications are available from and should be submitted to the director of Adult and Graduate Studies.

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**International Student Admission**

Students seeking admission to Westminster College who are citizens of a country other than the United States will be considered international students and will, therefore, be subject to specific admission requirements not applicable to naturalized citizens of the United States.

An international student applying for admission to Westminster College must first secure, from the admissions office, an international student application form. This form should be completed and returned with the student’s academic record indicating completion of at least a 13-year elementary/secondary school program or equivalent of a U.S. high school diploma. The student’s level of academic achievement should meet or exceed a grade point average of 3.000 (B) on a 4.000 scale.
The Test of English as a Foreign Language (TOEFL) is required of all international applicants. The TOEFL score required for admission is 550 or above (paper-based), 213 or above (computer-based) or 80 or above (Internet-based). In the case of international students who come from a country where English is the spoken language, the Scholastic Aptitude Test (SAT) may be substituted for the TOEFL.

While Westminster seeks to enroll academically qualified international students from a variety of countries, it is not possible to provide financial assistance to such students and continue to meet the financial needs of domestic students. As a consequence, all incoming international students must be prepared to meet the full cost of attendance—tuition, fees, room, board, books, supplies, and personal expenses for the calendar year—from personal or family resources. Applicants must provide certified documentation that sufficient financial resources exist to underwrite their educational expenses during the academic year and through their anticipated semester of study. This documentation must be submitted to the College in the form of a certified letter from the family bank, sponsor, government, etc.

The I-20, or student visa, required for entry into the United States as an international student will be issued by the Office of Admissions after the applicant has been granted admission, has paid the $200 matriculation fee, and has submitted a certified document proving adequate financial resources. Any questions or concerns regarding the admission of international students should be addressed to the vice president of enrollment.

**Expenses**

Westminster College is a nonprofit institution. The basic charges that students pay (tuition, fees, room and board) do not cover the full cost of a Westminster education. For each $65 Westminster receives from students and families, the College spends an additional $35. The remaining funds come primarily from gifts and grants, including alumni and corporate contributions, and income from the College’s endowment. The investment in a college education is one of the major financial decisions facing students and their families.

**Basic Fees and Charges**

The College’s Board of Trustees sets rates for tuition and fees annually, usually by late February for the following year. Rates are subject to review and change. The cost of a normal academic program is as follows (2012-2013):

<table>
<thead>
<tr>
<th></th>
<th>Semester</th>
<th>Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tuition*</td>
<td>$15,160.00</td>
<td>$30,320.00</td>
</tr>
<tr>
<td>Room &amp; Board</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Double occupancy/Tier I Dining Plan)</td>
<td>4,785.00</td>
<td>9,570.00</td>
</tr>
<tr>
<td>Information Technology Fee</td>
<td>200.00</td>
<td>400.00</td>
</tr>
<tr>
<td>Student Activity Fee</td>
<td>395.00</td>
<td>790.00</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$20,540.00</strong></td>
<td><strong>$41,080.00</strong></td>
</tr>
</tbody>
</table>
Other Room & Board charges:

- Double Occupancy/Tier II $4,635.00 $9,270.00
- Double Occupancy/Tier III $4,485.00 $8,970.00
- Berlin Village $4,765.00 $9,530.00

Single rooms are available on a limited basis at an additional cost.

*The full-time tuition charge for one semester allows students to enroll in 12-19 semester hours of course work. **Some courses are designated tuition-exempt in overload situations only.** Such tuition-exempt courses include physical education activity courses and wellness, music ensembles, music lessons, travel seminars, and certain other designated courses. These courses are marked in the official course schedule published each semester. (Please note that an academic load above 19 hours must be approved by the dean of the College.)

Students who enroll in more than 19 semester hours of tuition-incurring courses will be billed at the semester-hour rate for each tuition-incurring semester hour above 19.

**Information Technology Fee**

All students enrolled in a course for credit will be charged a mandatory $12.50 per semester hour Information Technology Fee (Infotech Fee). This fee helps fund the College’s acquisition and maintenance of computer and computer-related telecommunications capabilities which are necessary to meet today’s educational requirements in all fields and levels of study. The Infotech Fee is in addition to tuition and activity fees.

**Special Fees**

Tuition per semester hour (part-time or overload).................................$970
Audit fee per semester hour .................................................................$50
Damage and loss deposit (Reservation Deposit) ..................................$200
Late registration fee ...........................................................................$100
Drop/Add/Withdrawal .................................................................$20
Lifetime Transcript Fee (one-time).....................................................$50
Music fee for voice or instrument study beyond the requirements of the standard curriculum, per weekly half-hour lesson ..................................................$275
Student Teaching Fee ........................................................................$250
Summer Internship Fee .................................................................$250
Late Payment Fee.........................$40 or 1% per month on the unpaid balance
Photocopier Charges.....10¢ per black & white page and 20¢ per color page after allotment of 325 pages per semester
**Tuition for Internship**

**TRADITIONAL UNDERGRADUATE STUDENTS**
All internships, except those registered for Summer Session, carry the Information Technology Fee. Please consult current Summer Session schedule for summer internship tuition.

**LLP STUDENTS**
Tuition per credit for an internship taken through the Lifelong Learning Program is equal to the cost per LLP credit.

**GRADUATE STUDENTS**
Tuition per credit for an internship taken through the graduate program will be equal to the cost per graduate credit plus the Infotech Fee.

Please consult the appropriate catalog for information regarding fees. For further information, contact Mrs. Meade, director of the Career Center, at (724) 946-7339, or via email: meadelbl@westminster.edu.

**General Information**

The charges in this section, *Admission and Financial Information*, represent the rates in effect at the date of publication, August 2011. The College reserves the right to change any of its fees whenever such changes are deemed advisable. The new rates apply to all students. Students and parents will be notified in advance of the rates established for each academic year.

The tuition charge and Activity Fee cover such items as tuition, activities, health services, injury insurance, laboratory fees, and private music lessons and instrumental practice whenever these functions are a part of the regular academic program.

Undergraduate students and resident degree-seeking special students will be charged the Activity Fee of $395 per semester. This pays for admission to athletic events, theatre productions, and student health services. The Activity Fee also includes an allocation authorized by the Board of Trustees for the support of student publications and the Student Government Association.

An additional fee of $110 is charged for the new student orientation program for entering first-year and transfer students.

**Room Reservation Deposit**

All full-time undergraduate students are required to live in a College residence hall unless a student has received permission from the College to live off campus, in a fraternity house, or to commute from home. Students wishing to reserve a particular room on campus must participate in the College housing selection process. Cancellation of on-campus housing accommodations after June 1 will result in an administrative fee of $125.
Terms of Payment

STATEMENTS AND PAYMENT DUE DATES: Monthly statements will only be made available to students online through CASHNet. Students are able to provide online access to student account information for parents or others through this service. CASHNet may also be used to make payments on a student account as described below. Information about CASHNet can be obtained from the Office of Business Affairs.

Payment due dates on student account billings are as follows:
Fall Semester bill: August 1
Spring Semester bill: January 2
Summer Semester bill: June 30

LATE FEES/INTEREST: The College permits some additional time for loan proceeds, scholarships and payments to be posted before assessing late fees on student accounts. The application of the $40 late fee is assessed based on the following criteria:

Balance > $0 as of September 15 for fall
Balance > $0 as of February 15 for spring
Balance > $0 as of July 15 for summer

A late fee will not be assessed when there are scheduled travel course payments due after the “as of” date that determines assessment of late fees. However, a $40 late fee will be assessed if the payments are not made according to the payment schedule for the trip.

Interest at a rate of 12% per annum (1% per month) will be assessed on account balances outstanding upon the student’s separation from the College (graduation, withdrawal, leave of absence, suspension, expulsion, etc.). Interest will begin in the billing period after separation from the College occurs.

PAYMENT METHODS: The Office of Business Affairs accepts payments via cash, check, money order, and bank check at the window. All checks or money orders should be made payable to Westminster College. Credit card and ACH payments are accepted through CASHNet only. A teleprocessing fee will be charged on all credit card payments based on the amount charged. Wire transfer payments will be accepted on a limited basis on student accounts as approved by the controller.

For those who wish to pay their accounts in installments, arrangements are available through an outside payment plan company. The company authorized by the College to offer such plans will be in contact with students and parents directly. Alternatively, information is available by contacting the business affairs, admissions, or financial aid offices.

The Office of Business Affairs reserves the right to require payment on certain student accounts via cash, bank check or money order only.
PRE-REGISTRATION/REGISTRATION: Student account balances that are not paid in full prior to the pre-registration dates determined by the registrar will be placed on financial hold. While on hold, the student will not be permitted to register.

Approximately two weeks prior to the beginning of the registration period, the Office of Business Affairs will notify those students whose balances are greater than zero of the consequences with respect to pre-registration. This notification will be sent via U.S. mail, email, and/or another method deemed appropriate. If the balance remains unpaid, the student account will be placed on hold approximately five days prior to the beginning of the pre-registration period.

Check payments greater than $1,000 that are presented just prior to a pre-registration or registration period may be subject to verification with the bank for sufficiency of funds. Payments on accounts where there have been previous returned items will be verified for sufficiency of funds. Holds will not be released on the latter accounts until such verification takes place.

The Office of Business Affairs will make every effort to release students from financial hold in a timely manner once payment in full is received on an account and verified when applicable. The student, once released from hold, would be able to register at times determined by the registrar’s office.

GRADE/TRANSCRIPT AND DIPLOMA HOLD: If a student account has a balance greater than zero as the end of the semester approaches, a financial hold will be placed on the account which prevents the student from receiving their grades, transcripts and if graduating, their diploma. These holds are generally put on the student account approximately two weeks prior to the end of the finals period and will remain on the student account until the balance is paid in full.

Notification of the student account balance and the consequences with respect to grades, transcripts and diploma will be sent to those students whose balances are greater than zero. This notification will be sent via U.S. mail, email, and/or another method deemed appropriate.

Check payments that are presented to release a grade or transcript hold may be subject to verification with the bank for sufficiency of funds. Payments on accounts where there have been previous returned items will be verified for sufficiency of funds. Holds will not be released on the accounts until such verification takes place, and in the case of a transcript hold, the check clears the bank (which can take up to 14 days).

The Office of Business Affairs will make every effort to release students from financial hold in a timely manner once payment in full is received on an account and verified or cleared, whichever is appropriate.

PAYMENTS RETURNED BY BANK: Payments of any type (check, ACH, credit card, wire) that are returned by the bank for any reason will be subject to a $15 fee. The fee will be applied to the student account, when possible, upon notification by the bank (online or otherwise) of the returned item. The Office of Business Affairs will attempt to make contact with the issuer of the check to resolve the returned item.
If the returned item permitted the release of a hold on a student account, the hold will be reinstated and additional holds may be added as deemed appropriate under the circumstances. If a payment permitted the student to pre-register, the student will be notified of the returned payment and given seven days to resolve the unpaid item. If there is no resolution, the registration will be cancelled.

If the payment permitted registration for the semester currently under way, the student will be notified of the returned payment as soon as practicable and will no longer be permitted to attend class, nor participate in College-related activities. A maximum of seven days will be given to resolve the returned payment during the regular academic year, and a maximum of three days during the summer semester. The student will also be notified by the appropriate College offices of their status and next steps in accordance with procedures specified in the Handbook for Students, College catalog and other institutional policies.

**PREPAYMENT HOLD:** A prepayment hold requires that arrangements for full payment for a semester be in place prior to registration for that same semester. The following accounts will qualify for prepayment holds:

1. Accounts previously sent to a collection agency
2. Accounts previously in the College's internal collections process
3. Accounts with habitual returned payments (three or more)
4. Accounts for students whose registrations were cancelled in any semester for financial reasons
5. Foreign student accounts

**INTERNAL AND EXTERNAL COLLECTIONS:** Outstanding balances remaining on a student account after separation from the College for any reason are subject to the following collection procedures. All applicable holds will remain on the student account during the pre-collections and collections process:

**Internal Collections:**
1. Interest will be assessed on the outstanding balance as described above.
2. Three monthly statements will be sent to the address on file, along with a letter.
3. If there is no response from sending the statements, up to three additional monthly letters will be sent to the address on file in an effort to collect the outstanding balance and/or to make payment arrangements with the debtor prior to sending the account to an external collections agency. The third letter will contain a deadline for response to avoid the account going to a collection agency.
4. If the College is successful in obtaining a response from the debtor, payment arrangements may be discussed for the account. All agreements on payment arrangements will be documented on a promissory note which will be signed by the debtor.
5. If a payment arrangement is not followed as agreed, the pre-collections process will be reactivated at the point it left off prior to the arrangement being made. If the account reached the point of being sent to external collections prior to the arrangement, the College will make one last effort to contact the debtor prior to sending the account to external collections.
External Collections:
If the internal collections process is unsuccessful, external collections agencies will be utilized to assist in collecting the outstanding balance. All collections fees will be added to the outstanding balance on the student account and will be the responsibility of the debtor. Generally, the account will be placed in first collections for approximately one year. If the effort is unsuccessful, the account will be returned to the College. The Office of Business Affairs will make one attempt to reach the debtor prior to the account being entered into second collections. If that effort is unsuccessful, the account will be turned over to second collections for approximately one year.

Refunds

WITHDRAWAL FROM THE COLLEGE: College fees are usually not returnable to students unless they withdraw from the College because of illness or reasons entirely beyond their control. The process of withdrawing from the College is initiated in the Office of Student Affairs, and the date of approval is considered the official date of withdrawal. Refunds, when allowed, will be made on a pro-rata basis based on the following calculation: the number of calendar days through the official withdrawal date divided by the total number of calendar days in the semester, excluding breaks of five days or more. No refund will be given if the semester is more than 60 percent completed. The pro-rata refund is applied to tuition, room and board, and certain other charges assessed by the College. This pro-rata formula is also applied to College and outside sources of financial aid to determine the amount of aid earned through the date of withdrawal. Specific federal regulations, as described below, apply to Federal Title IV Financial Aid. All earned aid is applied against the pro-rata charges to determine the balance due to/from the withdrawing student. An administrative fee of 5 percent of actual charges (up to $100) will be assessed against the account. Generally, no refund will be made where the withdrawal is required because of misconduct.

ROOM: In cases where a withdrawing student is unable to vacate College housing on the official date of withdrawal, a charge of $20 per day will be added until all possessions are removed from the room and proper check-out is completed with the student affairs office.

Except for the pro-rata refund for withdrawal from the College, room charges will not be refunded unless a student is changing from resident to commuter, which must be approved by the Office of Student Affairs as noted in Housing, p. 34. In cases where the residency status changes during the semester, a daily room charge will be assessed from the beginning of the semester through the date the room is vacated. However, no refund will be provided for room if the change from resident to commuter occurs after the semester is more than 60 percent complete.

FOOD SERVICE: Unused dine dollars are not refundable. However, dine dollars remaining at the end of the fall semester can be carried forward for use in the spring semester. If a student does not return for the spring semester, then dine dollars remaining from the fall semester are forfeited. The pro-rata refund calculation
above applies when a student withdraws from the school. In addition, any meals provided by the College after the official withdrawal date will be charged to the student’s account at the going daily rate.

FEDERAL TITLE IV FINANCIAL AID: If the withdrawing student has Federal Title IV Financial Aid, the financial aid office is required by federal statute to recalculate eligibility for this aid. A percentage of earned aid is determined on a pro-rata basis using the following calculation: the number of calendar days through the official withdrawal date divided by the total number of calendar days in the semester, excluding breaks of five days or more. If withdrawal occurs after the semester is 60 percent completed, the student is deemed to have earned 100 percent of the Title IV aid.

The percentage of unearned aid (100% - the percentage of earned aid determined in the pro-rata formula) is applied to the total amount of Title IV aid that could have been disbursed for the semester to determine that amount of aid that must be returned to the federal financial aid programs.

From time to time, the full amount of Title IV aid for which the student is eligible has not been fully disbursed when the withdrawal calculation is being performed. In such a case, if the student earned less than the amount of Title IV aid that was disbursed, both the institution and the student would be required to return a portion of the funds. If the student earned more than the amount of Title IV aid that was disbursed, the institution would owe the student a post-withdrawal disbursement of aid within 120 days of the student’s withdrawal.

Unearned aid is allocated to the appropriate federal aid program in the following order and must be returned by the institution within 30 days after the determination of the date of the student’s withdrawal:

- Unsubsidized Federal Stafford Loans
- Subsidized Federal Stafford Loans
- Federal Perkins Loans
- Federal Parent Plus Loans
- Federal Pell Grants
- Federal Supplemental Opportunity Grants

Financial Aid

In granting scholarship aid to first-year students, the College is governed primarily by the applicant’s academic ability and financial need. Aid is also available to students who have financial need and who offer promise of distinctive accomplishment, but who have not achieved high distinction scholastically.

The following types of financial assistance are offered to students: Vance, Trustees’, President’s, Tower, Westminster, and merit scholarships; Alumni Grants; Graham Ireland Grants; student loans; work opportunities; and outside grants. Complete information may be obtained from the director of financial aid.
No academically qualified student should overlook Westminster College because of limited financial resources. In 2011-2012, 98 percent of the student body qualified for some form of financial aid. More than $29 million was awarded for student aid from all sources, including income from College endowment funds, direct gifts, and budgetary grants, as well as federal, state and work-study programs.

**Vance Honors Scholarship**

To be eligible, a student must present a minimum GPA of 3.75 in college preparatory subjects or be in the top 10 percent of his or her class and have a minimum 1300 SAT (math and CR) or a 29 ACT composite. Scholarships are renewable for up to four years, provided recipients maintain an overall GPA of 3.0 or higher. The grade point average is calculated by Westminster College based on college preparatory subjects earned in grades 9 through 12 and is based on a 4.0 scale. College preparatory subjects include English, foreign languages, laboratory sciences, college preparatory mathematics, and social studies.

**Trustees’ Scholarship**

To be eligible, a student must present a minimum GPA of 3.7 in college preparatory subjects (listed above) or be in the top 20 percent of his or her class and have a minimum 1200 SAT (math and CR) or a 27 ACT composite. Scholarships are renewable for up to four years, provided recipients maintain an overall GPA of 3.0 or higher.

**President’s Scholarship**

To be eligible, a student must present a minimum GPA of 4.0 in college preparatory subjects (listed above).

**Tower Scholarship**

To be eligible, a student must present a minimum GPA of 3.5 in college preparatory subjects (listed above) or be in the top 25 percent of his or her class.

**Westminster Scholarship**

To be eligible, a student must present a minimum GPA of 3.0 in college preparatory subjects (listed on previous page) or be in the top 35 percent of his or her class.

**Young Presbyterian Scholarship**

This scholarship is awarded to students who are nominated by their pastor and present a minimum GPA of 3.500 on their high school transcript.
Jerb Miller Scholarship

This scholarship is awarded to students who present a minimum GPA of 3.500 on their high school transcript and are nominated by an educator who is a Westminster graduate and familiar with their academic performance.

General Scholarships and Grants

Through funds available from budget appropriations, contributions from foundations and other donors, and earnings from invested scholarship funds, the College grants scholarship assistance toward the payment of tuition. The awards are based upon superior academic standing, financial need, and the applicant’s record as a citizen in the school or College community. The amount of assistance granted to students varies, the actual amount being based upon the need of the applicant as evidenced by the need analysis report.

A GRAHAM IRELAND GRANT is available to students with exceptional need. Students must be in good academic standing, which means that they are not on academic probation, to be considered for renewal of this award.

AN ALUMNI GRANT, a minimum entitlement of $1,000 annually, is available to a son or daughter whose mother or father received an undergraduate or graduate degree from Westminster College. The grant is renewable if the student remains in good academic standing.

FEDERAL SUPPLEMENTAL EDUCATIONAL OPPORTUNITY GRANT (FSEOG) is a federal program designed to aid students with exceptional financial need. To be considered for renewal, a student must be enrolled at least half time and be making satisfactory academic progress.

PELL GRANT was authorized by the Educational Amendments of 1972 for the purpose of assisting students in higher education. A student must be enrolled at least half time and be making satisfactory academic progress.

Student Loans

There are several sources of loan funds available to Westminster students.

PERKINS LOAN PROGRAM: The College provides financial assistance through participation in the Perkins Loan Program. This program, nationwide in scope, provides low-interest loans to students and makes special provisions for student borrowers who later enter certain phases of the teaching profession. The FAFSA Form is needed for all students.

STAFFORD LOAN FUNDS: Stafford Loans are available through the federal government. These loans are available for students to help meet college expenses.
Work Opportunities

FEDERAL WORK-STUDY PROGRAM: Westminster participates in the Federal Work-Study Program under the Economic Opportunity Act of 1964. Limited numbers of part-time on-campus jobs are available during the academic year. The purpose of the program is to assist students with financial need to earn part of the cost of an education. To be considered for employment under this program, a student must be making satisfactory academic progress. In addition, a student must be enrolled at least half time and be in need of financial assistance. A student may not earn more than the work-study or employment amount stated on the financial aid package.

Financial Aid Policies

1. No financial aid is renewed automatically unless otherwise stated.
2. The amount awarded is determined by available funds and the number of applicants.
3. State and federal regulations, as well as Westminster College, require that all financial sources be considered in meeting the financial need of a student.
4. Financial aid awarded by and federal funds administered through Westminster College are credited to the student’s account, half for the Fall Semester and half for the Spring Semester. The only exception is the work-study program under which a student receives payment by check for the hours worked each pay period.
5. A student suspended for academic reasons must return without financial assistance from Westminster College for one full semester (Fall, Spring, or Summer).
6. A student on academic probation will not receive College funds in the student’s aid package.
7. Financial aid is based on full-time status.

Application Procedures

Most financial aid for first-year students is granted on the basis of the FAFSA. This form may be completed online at www.fafsa.gov.

In addition, a Westminster College Financial Aid Application, which is available from the director of financial aid, must be submitted. As soon as this application and the need analysis report have been received by the College, action will be taken on the request for financial assistance.

A complete listing of endowed and non-endowed scholarships, awards and prizes can be obtained from the development office or online at www.westminster.edu.
GRADUATION REQUIREMENTS

THE WESTMINSTER PLAN

ACADEMIC ADVISING

COMPREHENSIVE EXAMINATION

SPECIAL STUDY OPPORTUNITIES

INTERNSHIP PROGRAM

REGISTRATION

ACADEMIC RECOGNITION

WITHDRAWAL

SUMMER SESSION

STUDENT REGULATIONS

PRE-PROFESSIONAL PROGRAMS
Academic Policies

Westminster offers courses of study leading to the of Bachelor of Arts, Bachelor of Science, Bachelor of Music, and Master of Education degrees. The academic year comprises Fall and Spring semesters of 16 weeks each. The Fall Semester begins in late August and ends before the Christmas holiday, while the Spring Semester starts in mid-January, and ends in mid-May. A student normally takes 17 semester hours in each of the Fall and Spring semesters. Summer Session is also offered.

The graduation and other academic requirements contained in this catalog apply to students who enter Westminster College during the academic year 2012-2013 and who remain in continuous enrollment at the College until they graduate. Students who withdraw and are subsequently readmitted will be bound by graduation, major and degree requirements in force during the academic year for which they are readmitted.

The College reserves the right to change curricula, courses, and graduation and other academic requirements when such changes are deemed advisable. If academic requirements are changed, continuously enrolled students may elect to comply with the new requirements or to remain under the requirements which applied at the time of the change.

All exceptions to academic requirements must be approved in the following manner:

1. Exceptions to the requirements for a regular departmental major must be approved by the department offering the major program.
2. Exceptions to the requirements for an interdisciplinary major must be approved by the committee charged with administering the major.
3. Exceptions to any other academic policy must be approved by the Academic Standards Committee, subject to limitations established by the faculty. The decision of the committee will be final.

The chair of the department or committee charged with approving exceptions to requirements shall be responsible for notifying the registrar whenever an exception is granted.

A student may declare a major at any time, but must do so by March of the sophomore year. Whenever they are ready to declare a major, students must obtain an official major form from the registrar, and, after reviewing the program of studies with the chair(s) or other adviser(s) from the department(s) involved, must file one copy of this form with the registrar. **Students should check carefully at the time of declaring a major to ascertain both the requirements for the major and the amount of time needed to finish the program.**

Students with an exploratory major must declare a major field of study prior to registration during the Spring Semester of their sophomore year. Students should be aware that changing their major or adding an additional major or minor at any time during their course of study may require added time for completing graduation requirements.
Graduation Requirements

In order to qualify for graduation, all students must do all of the following:

1. Successfully complete at least 128 semester hours (136 semester hours for a bachelor of music degree).

2. Take a minimum of 80 semester hours outside their major discipline (which may include supporting courses, but not courses inside the discipline, even if all major requirements are met). For students with double majors the courses in the second major may be counted towards this requirement of 80 hours outside the major. For interdisciplinary majors, the student must have this minimum of 80 hours outside the discipline which constitutes the largest number of courses in the major. Students who complete the Honors Program need take only 76 semester hours outside the major discipline. For majors in the Bachelor of Music program, the student must have a minimum of 36 semester hours outside of music.

3. Successfully complete the Wellness and Physical Education requirement (see p. 58).

4. For all courses taken, attain a grade point average (GPA) of 2.000.

5. For all courses taken in the major(s) and minor(s)*, attain a GPA of 2.000, and for the minimum 36 hours required in the major(s) and minor(s)**, both attain a GPA of 2.000 and (for these same hours) have no letter grade below a C-.

6. Pass a comprehensive examination (see p. 61 and the individual department headings for more information), if required by the major department. (See statements under individual departmental headings for majors which require a comprehensive examination.)

7. Spend the senior year at Westminster College.

8. Successfully complete the Liberal Studies Curriculum.


In addition to the above, transfer students must successfully complete a minimum of 64 semester hours at Westminster College, at least 16 of which must be in the major. Transfer student must successfully complete a minimum of eight semester hours at Westminster to meet requirements for a minor.

A second undergraduate degree may be earned by successfully completing all requirements for the major associated with the second degree and earning a minimum of 48 semester hours beyond the first degree. The second degree must be a different degree. (One cannot earn two B.A. degrees, for example.)

*See statements under individual departmental and interdisciplinary major headings for a list of precisely which courses each department defines as being “in the major.”

**This minimum may be higher for some majors. (See statements under individual departmental and interdisciplinary major headings.)
The Westminster Plan

From a curricular perspective, Westminster’s vision of a liberally educated person is achieved from a four-year integrated course of study involving general education, prescribed graduation requirements, a major, and electives.

At the center of the curriculum is the common core, Liberal Studies, a course of study spanning all four years of the undergraduate experience. The entry point for Liberal Studies is Inquiry 111, a semester-long, first-year core requirement for all students. Communication skills are developed in conjunction with the Inquiry course. Students enroll in semester-long courses in writing and oral communication. The middle two years of the undergraduate experience are devoted to cluster courses and to courses satisfying prescribed Intellectual Perspective requirements. The general education curriculum culminates in a senior year capstone course in the major.

Throughout the entire curriculum, the use of information technologies is emphasized in order to enhance teaching and learning, and to provide students with knowledge acquisition skills necessary for a lifetime of learning.

Finally, the process of liberally educating students is completed by combining general education with in-depth course work in a major and with electives.

LIBERAL STUDIES CURRICULUM

The Liberal Studies portion of the curriculum is the common core for all students. This program of study is a four-year series of courses crafted to foster collaborative learning, demonstrate the integration of knowledge, and structured to facilitate the acquisition of learning skills and the development of a community of learners. Liberal Studies has four complementary parts: (A) The First-Year Program; (B) Intellectual Perspectives; (C) Cluster Courses; and (D) Senior Capstone.

The First-Year Program

The First-Year Program is an integrated educational experience comprised of three curricular elements in which all new students enroll. Its components are: (1) Inquiry 111; (2) Writing; and (3) Introduction to Public Communications. These courses provide a common educational experience for first-year students and are the foundations of liberal learning at Westminster.

INQUIRY 111

Inquiry 111 is a first semester course designed to introduce students to the life of the mind and engage them in liberal learning. The faculty have identified three outcomes and a series of objectives for this course:

Outcome #1. Articulate and practice the values and methods of a liberal arts education.
Inquiry 111 provides students with the opportunity to:
   a) study liberal arts practices and theories;
   b) recognize the greater expectations associated with college-level work and
develop appropriate critical thinking and information literacy skills;
   c) consider moral and ethical responsibilities they have to various
   communities as a result of their education.

**Outcome #2. Engage, experience and explain different ways of knowing.**
Inquiry 111 provides students with the opportunity to:
   a) examine and compare each of the Intellectual Perspectives as ways of
   knowing;
   b) recognize and respect different world views;
   c) challenge their own assumptions to promote inquiry and intellectual
growth.

**Outcome #3. Pursue interdisciplinary study and discussion of important
issues.**
Inquiry 111 provides students with the opportunity to:
   a) investigate and discuss significant or controversial issues from multiple
   cultural and intellectual perspectives;
   b) engage diverse views of common readings and issues;
   c) participate in an active learning community sharing a first-year
   experience.

In addition to the Inquiry course, first-year students take writing and oral
communication courses that complement Inquiry 111, making skill and content
instruction mutually reinforcing. In turn, learning in the Inquiry course is enhanced
as a result of the synergistic effects of more effective written and oral communication
skills being developed by students. In both communication skills courses, newly
acquired knowledge of information technology is applied.

**INQUIRY 103**
Inquiry 103 is a course with outcomes and objectives similar to Inquiry 111 as
described above, but is designed with the needs and experiences of adult students
who are pursuing a degree in the Lifelong Learning Program.

**WRITING**
Writing is a valuable and necessary tool for the investigation, analysis, evaluation
and expression of ideas and experiences encountered in Inquiry 111. First-year
students receive instruction and practice in essential skills and forms of written
expression. The course in writing capitalizes on the substance of the Inquiry course
to motivate learning-specific skills in written expression and to enhance teaching
and learning in Inquiry. WRI 111 or an approved equivalent is required of all
first-year students. Students must earn a grade of C- or better in order to meet this
requirement.

**ORAL COMMUNICATION**
Like writing, the mastery of oral expression skills is essential for success in college,
a vocation, and throughout life. The first-year course in oral communication provides
a basic grounding in these skills. Oral communication capitalizes on the substance
of the Inquiry course to motivate learning-specific skills in oral expression, and to enhance teaching and learning in Inquiry. SPE 111 or an approved equivalent is required of all first-year students.

**Intellectual Perspectives**

The Intellectual Perspectives portion of the curriculum is designed to assure that all Westminster College graduates are familiar with a broad range of human intellectual endeavors and creativity. The requirements of this component of Liberal Studies are subject based and provide opportunity for students to explore significant areas of knowledge. The seven principal areas of study are: (1) foreign language; (2) humanity and culture; (3) quantitative reasoning; (4) religious and philosophical thought and tradition; (5) scientific discovery; (6) social thought and tradition; and (7) visual and performing arts. All students are required to complete at least four semester hours in each area. Two courses that satisfy major or minor requirements may also be used to satisfy Intellectual Perspectives. See the Westminster College class schedule, published each semester, for a list of courses which fulfill these requirements.

**Cluster Courses**

Cluster courses are taken during the sophomore or junior years. A cluster consists of two linked courses taught by at least two faculty from different disciplines to the same group of students. Clusters offer opportunities for students to integrate knowledge and to develop into a community of learners. All students are required to take at least one cluster (two courses). Cluster courses may satisfy Intellectual Perspectives.

**Senior Capstone**

The final component of Liberal Studies is a senior capstone course. The capstone is at least a four-semester-hour course within the major designed to provide an opportunity for students to evaluate and assess the strengths and limitations of their major field. Additionally, the capstone experience permits opportunity for structured reflection on the value of education in and beyond the major and provides another chance to strengthen communication and problem-solving skills.

**OTHER GRADUATION REQUIREMENTS**

**Wellness and Physical Education**

It has long been recognized that healthful behaviors and physical fitness have beneficial consequences on intellectual readiness for learning. In addition, the value of wellness to an individual also has social benefit because it results in an overall enhancement of the quality of life. All students must successfully complete the wellness course, an aquatics course (or show proficiency), and two additional physical education activity courses, or participate in two seasons of a varsity sport. Students may only earn a total of four wellness and physical education credits in the required 128 semester hours for graduation. Grades in courses beyond the requirement will not be counted in the student’s grade point average.
THE MAJOR

Course work devoted to one or more majors provides opportunity for students to acquire significant understanding of a discipline’s concepts, theories and principal paradigms. The major(s) also provides a mechanism for understanding and interpreting a broad range of ideas and empirical phenomena.

ELECTIVES

Electives are courses available to students outside of the major which provide opportunities for intellectual exploration. Such courses may be taken at any time during the undergraduate years and count toward the total number of semester hours needed to graduate.

Academic Advising

Upon matriculation all students are assigned an academic adviser. While they explore various major fields, the adviser is assigned from the faculty at large, but when they declare a major, an adviser is assigned from the major department.

Under the direction of the dean of the College, the faculty adviser helps the student to arrange a coherent academic program and is available for further consultation at the student’s request. All students are expected to consult their adviser regularly, and especially to work closely with their adviser in arranging to fulfill not only the requirements of their major(s) and minor(s), but also the various other academic requirements (see p. 55.) Although the adviser is expected to attempt to arrange these matters to the student’s best advantage, the final responsibility for the fulfillment of all academic requirements rests with the student.

Specializations

**Major:** Each candidate for a degree must concentrate in one major field. Students who choose to complete more than one major or minor may need additional time to complete all requirements. The minimum requirement for a major is 36 semester hours in one discipline, but some majors require more (see statements under individual departmental headings). The maximum number of semester hours permitted in the major discipline is 48; the maximum number of semester hours permitted in the major, including supporting courses, is 64. Westminster College offers major programs leading to the degrees of Bachelor of Arts, Bachelor of Science, and Bachelor of Music.

For specific major requirements, see the appropriate departmental listing. No credit toward a major or minor can be given for any course in which the student receives a grade below C-, and the grade point average for all courses taken in the major must equal at least 2.000.
Students with an exploratory major must declare a major field of study by March of their sophomore year. Students should be aware that changing their major or adding an additional major or minor at any time during their course of study may require added time for completing graduation requirements.

The list of majors available for each degree program is as follows:

**Bachelor of Arts**
- Broadcast and Digital Communications
- Christian Education
- Communication Studies
- Criminal Justice Studies
- English
- Fine Art
- French
- History
- Latin
- Media Art
- Music
- Philosophy
- Political Science
- PreK-4 Early Childhood Education
- PreK-8 Special Education
- Psychology
- Public Relations
- Religion
- Sociology-Social Policy
- Spanish
- Theatre

**Bachelor of Science**
- Accounting
- Biochemistry
- Biology
- Business Administration
- Chemistry
- Computer Information
- Computer Science
- Systems
- Molecular Biology
- Physics

**Bachelor of Music**
- Music Education
- Music Performance
- Sacred Music

**Alternatives to the Single Major.** Although most students choose to concentrate in a single major, the following alternatives are permitted:

1. **Double major.** This involves combining two of the single majors listed above. Permission of the chairs of both of the departments involved must be secured. All requirements for each major must be completed in order to graduate.

2. **Interdisciplinary major.** Structured interdisciplinary majors are available in the following programs:

   **Bachelor of Arts**
   - International Studies:
     - Sociology and Modern Languages
   **Bachelor of Science**
   - Environmental Science
   - Financial Economics
   - International Business
   - Neuroscience
   - Psychology-Human Resources
   - Quantitative Economics

3. **Individual interdisciplinary major.** A student may propose a major program with as few as 24 semester hours in one discipline, and a total of 52 to 76 semester hours. The program will be subject to the approval of all of the departments involved and the dean of the College, and will be administered by a member of the department giving the core of 24 semester hours or more.

**Minor.** A student may elect to complete one or more academic minors in addition to the required major. A minor, where available, consists of at least 24 semester hours in a single discipline, or as specified by the department. There is no maximum number of semester hours designated for minors. All grade restrictions for academic majors apply to academic minors as well.
Comprehensive Examination

Certain departments require students to take a comprehensive examination in their major field (see statements under individual departmental headings for majors which require this type of examination). This examination is intended to be a measurement of the student’s grasp of the major field and an incentive to integrate all personal knowledge of this field. The examination, when made mandatory by a department, must be passed with a satisfactory grade if the student is to be graduated. A failed comprehensive examination cannot be retaken during the same semester.

Special Study Opportunities

Westminster provides a number of opportunities for students to pursue projects beyond the regular course work. These options are offered at Westminster in the belief that one of the highest aims of education is to develop the student’s capacity to initiate and complete meaningful projects in the major field of study. Each participating student is expected to conduct an independent investigation beyond that possible in regular course work.

ALL-COLLEGE HONORS PROGRAM. The All-College Honors Program provides opportunities for selected students to gain a deep appreciation of the multiple dimensions of knowledge. Only the most outstanding students in the incoming first-year class or rising sophomore class are eligible, and selection is competitive.

High school seniors with a 1300 SAT or 29 ACT score, and a high school GPA of 3.7 are invited to apply for the All-College Honors Program during the spring semester prior to their matriculation. Students admitted to the All-College Honors Program are designated Honors Scholars.

Students may also apply in the spring of their first year to enter the All-College Honors Program in the fall of their sophomore year. Students will be selected based on the following criteria: minimum Westminster College GPA of 3.7; support form signed by all Westminster College faculty with whom they have had courses; and an interview with the Ad Hoc Honors Committee and the Honors Program coordinator. Students who are interested in the All-College Honors Program should obtain from the Honors Program coordinator the Honors Scholar Handbook, which contains a description of the All-College Honors Program as well as information on the procedures and deadlines for each stage of the program.

Honors Curriculum: All-College Honors Scholars are required to take the following courses:

- Inquiry 111 (Honors Inquiry)
- Writing 121 (Honors Writing)
- Honors Seminar 201 (2 hrs.)
- Three honors-designated courses: Honors Scholars must take three courses that have been approved as honors-level courses, at least two of which must be outside their major.
- Honors Thesis or Project: Honors Scholars will propose and complete a thesis or project in their major(s) during their junior and senior years, respectively.
Honors Scholars must successfully present and defend their thesis or project before an Honors Board.

For further information about requirements, students should refer to the Honors Scholar Handbook.

INDEPENDENT STUDY. All departments list this option for students who want to pursue projects beyond the regular course work but not of the intensity of the Honors Program. Consent of the major department is required.

OFF CAMPUS STUDY. Through off campus study Westminster students may expand their academic and cultural horizons. As a part of their educational program, students can spend as little as a month or as much as a year living and studying in an international or domestic program. Students who study off campus may be able to earn, via their off-campus study, not only credits toward graduation, but also credit towards their major or minor, or toward fulfilling part of the Liberal Studies requirements. Specific credit arrangements, however, must be worked out in consultation with the director of off campus study, the academic adviser, and the registrar, and require approval by the chair of the student’s major department.

The following general guidelines apply to all students who plan to study off campus:

1. To be eligible to apply, students must have an all-college GPA of at least 2.500.
2. Students in required programs and tuition-exchange programs receive financial aid.
3. Grades for all courses taken through the Westminster College Off-Campus Study Program are calculated as part of the Westminster College grade point average.

Information about specific off-campus programs is available from the director of off-campus study.

Internship Program

An internship, a practical on-the-job experience outside the classroom, can be an integral part of a student’s education at Westminster College. It is a short-term work experience emphasizing learning. A student takes on the role of a worker in an organization and in the process learns about a career field, gains hands-on experience, and contributes to the host organization. An internship may be served during any semester, including the summer, or during the period between semesters.

The internship is structured as a three-way agreement among a student, a faculty member, and an on-the-job supervisor. The student is responsible for arranging the internship and completing all required paperwork. The faculty member sets standards, grants approval, evaluates the work, and assigns the grade. The on-site supervisor provides the opportunity for the student to gain meaningful experience and submits an evaluation at the conclusion of the internship.

When taken during the regular academic year, as part of the normal credit load, no additional tuition is charged for an internship. If taken during the summer, a flat fee of $250 is applied, and no other fees are charged.
While most students locate a sponsoring organization for an internship on their own, the Career Center provides assistance in the form of on-campus internship recruiting programs, a Spring Semester internship fair, weekly email newsletter, a database of previous sponsors, and printed resources in the Career Center library.

Students must register for the internship in order to receive academic credit. An internship may be graded or taken on an S/U basis, as determined by the department awarding credit. Forty hours of on-the-job internship experience are required for each academic credit awarded.

Application packets for internships are available in the Career Center.

Registration

Students enrolled at Westminster plan their programs and complete other phases of the registration process in a designated period near the end of one semester in preparation for the following one.

Transfer students or former Westminster students returning after a lapse of a semester or longer generally complete registration in a single day. Such persons should obtain further information from the registrar.

Registration Procedures

1. Before a student is permitted to attend classes, registration must be completed.
2. Students must register on the days stated in the College calendar and follow the procedure indicated in notices provided by the College. A late fee of $100 will be charged to students who do not register by the end of the third day of classes. Students will not be permitted to register for classes after the end of the add period.
3. Registration is considered complete only when the student has filed a class schedule with the registrar and has made suitable arrangements with the business office to pay tuition and all fees.
4. Each student must register for all courses taken, whether for credit or not.

Cancellation of Registration

Westminster’s faculty and administration reserve the right to cancel at any time the registration of any student whose scholarship is unsatisfactory. The administration also may cancel the registration of any student who has not taken care of any financial obligation to the College.

Academic Overload Policy

A student carrying an academic overload may incur additional tuition charges. A number of courses are tuition-exempt in overload situations only. These include: physical education activity classes and wellness, music ensembles, music lessons,
travel seminars, and certain other courses. Such tuition-exempt courses are marked in the official course schedule published each semester. However, if the approved course load includes more than 19 semester hours of tuition-incurring courses, each semester hour beyond 19 will be billed at the semester-hour rate. See section on tuition and fees for more details on comprehensive charges.

**Add/Drop**

All changes in registration must be approved by the student’s adviser. In certain cases the approval of the dean of the College may be required. There is no fee for adding or dropping a class during the first six class days of the Fall and Spring semesters. After the first six class days of Fall and Spring semesters, a fee of $20 is charged. Ordinarily, courses may be added or dropped through the sixth class day in the Fall and Spring semesters. First-year students may drop one course during weeks 1-10 of classes in the Fall semester, but there is no tuition adjustment for a course dropped in weeks 2-10 of classes. Specific instructions for schedule changes will be communicated by email and other online notices each semester.

**Withdrawal From a Class**

A student may withdraw from a course after the add/drop period ends and the instructor will determine whether the withdrawal is a W (withdrawn passing) or WF (withdrawn failing). Students are not permitted to withdraw from a course after week 10 of the Fall or Spring semesters. Students may not withdraw after week five of a seven-week course.

*No schedule change is effective until the withdrawal card, completed and signed, is filed with the registrar and all fees have been paid.*

**Auditing**

A person who desires to attend a class without receiving credit or a grade may do so by petitioning and paying the audit fee. The fee is waived for full-time students. A special form, available in the registrar’s office, must be used to secure the consent of the instructor and the department chair. Students must declare their intentions to audit a course by the end of the add/drop period. Any student who audits a course must satisfy minimum attendance and participation requirements as set forth by the instructor. The instructor must certify completion of these minimum requirements in order for a record of the audit to appear on the student’s transcript. An auditor may not, at a later date, request conversion of an audited course to a regular course, nor may an auditor test out of the course.

**Grades and Grading**

Quantity of course work is expressed in semester hours. Quality of course work is expressed in letter grades. Grades are defined and given by the instructor of each course. The assignment of plus and minus to the letter grade is an option open to the individual instructor.
A .......... 4.000  Outstanding quality
A-.......... 3.700
B+......... 3.300
B........... 3.000  Superior quality
B-......... 2.700
C+......... 2.300
C........... 2.000  Satisfactory
C-.......... 1.700
D+......... 1.300
D.......... 1.000  Passing, but inferior
D-......... 0.700
F.......... 0.000  Failure to demonstrate even minimal mastery of course content
and/or failure to meet the course requirements for a passing grade.

I.................. Incomplete. This grade may be given in lieu of the letter grades. This is a temporary grade given when a student is unavoidably delayed in completing a course. Such work must be completed within the first seven weeks of the next semester if the student remains in college. Students who are not enrolled at the College must remove the incomplete within the first seven weeks of the second semester after the incomplete grade was given unless special permission for an extension is granted by the dean of the College. All incomplete grades not properly removed are changed to F or U.

T.................. Temporary. Grade recorded for an Honors Project or a capstone course pending completion. A grade of T may not remain on a student’s transcript as a permanent final grade.

W.................. Withdrawn. This grade will be recorded for withdrawal from a course between the third and tenth weeks of the semester if the course record to date is passing and if withdrawal is necessitated by illness or other good reason. Granting of the W grade requires approval by the instructor and the dean of the College. A grade of W is not counted in a student’s GPA.

WF.................. Withdrawn Failing. When the student withdraws under circumstances that do not warrant the W grade, WF is recorded. A grade of WF is not counted in a student’s GPA.

S/U.................. Satisfactory/Unsatisfactory. The S grade represents work of at least C- quality; the U represents work of D+ or lower quality. Students in good standing who have attained junior or senior classification may choose to have one course per academic year graded on an S/U basis, provided that it is outside their major or minor field. This option must be declared either at the time of registration or during the add/drop period. Courses in which a student chooses to be graded on an S/U basis may not be used to satisfy any stated requirement. However, courses that are designated S/U for the entire class may be used to satisfy such requirements. Courses in which a grade of S is attained will be counted towards graduation, but a student will earn no credit for a course if the final grade is a U. Neither an S grade nor a U grade is counted in a student’s GPA and may not be changed to a letter grade.
Change of Final Course Grade

Students may appeal a final course grade for the following circumstances: transcription error, calculation error, failure to include all relevant information in grade determination, failure to follow grading criteria specified in syllabus, or failure to follow established College/departmental policies. The student must initiate the appeal as soon as possible after notification of the assigned grade so that the process can be completed no later than the end of the seventh week of the following semester.

The procedure for the appeal is as follows:

1. The student must meet with the course instructor in an attempt to resolve the disputed grade. The student must present all pertinent questions and facts concerning the assigned grade and materials supporting the requested change of grade.

2. If the student and instructor cannot reach a mutually agreeable resolution, the student may appeal the instructor’s decision to the department chair by presenting a written rationale for appealing the grade. The student and instructor will meet together with the department chair to attempt to resolve the issue. The department chair will make a decision based on the evidence presented and will respond to the student and the instructor in writing.

3. If the decision is not satisfactory, an appeal may be made to the vice president for academic affairs and dean of the College. This appeal must include all materials from preceding steps and any written additions by the student and/or course instructor.

4. The dean may invite all the parties to a meeting to discuss the decision on the disputed grade. After reviewing the written materials and meeting with the parties involved, the dean will notify them, in writing, of his/her decision on the disputed grade.

5. If the decision of the dean is not satisfactory to the student, appeal may be made to the president of the College.

6. The president will review the written file and any additional documentation presented by the student and/or course instructor. The president may request additional information and/or request a meeting with the parties involved before making a decision.

7. The decision of the president is final and will be communicated in writing to all parties involved in the appeal process.

Repetition of Courses

If a student elects to repeat a course at Westminster College, the grade and credit for the most recent effort is counted and the previous grade and credit are removed from the GPA calculation. Students may repeat a course one time. A second repetition must be approved by the Academic Standards Committee. As part of the appeal process, the Academic Standards Committee will seek input from the instructor(s) from whom the student has taken the course previously. Except in extraordinary circumstances, students will not be allowed to repeat a course more than twice.
If a student elects to repeat a course at another college or university, the credit for the most recent effort is counted and the grade earned at Westminster is no longer calculated in the student’s GPA. The transient credit policy and procedure apply. The approval of the student’s adviser, department chair, and the registrar are required before registering at another institution.

In either case, each effort is recorded on the student’s permanent record; the earlier efforts are noted as having been repeated.

This policy does not apply to students who return to do course work at Westminster College after earning the degree here. A student’s undergraduate GPA at the time of his or her graduation cannot be changed by grades received in courses retaken thereafter.

**Transient Credit**

With prior approval from the department chair and the registrar, Westminster students may take summer classes at other regionally accredited colleges or universities. Acceptance of work submitted without having had prior approval is not guaranteed. After completion of these approved studies, students must submit an official transcript to the registrar to receive credit. No grade lower than C- will be accepted. Courses which are graded on a pass/fail or satisfactory/unsatisfactory basis will not be accepted. Grades earned for transient credit will not be included in the Westminster GPA. Transient credit approval forms are available in the registrar’s office. Transient credit approvals are valid for one academic year only.

**Transcripts**

Transcripts of an official academic record may be obtained from the registrar’s office. Transcripts are not released if a student has outstanding financial obligations to the College. A one-time fee of $50 is charged to all students upon matriculation to cover all future transcript requests.

Westminster College in partnership with SCRIP-SAFE International provides 24-hour access to online transcript ordering through a secure website. Scrip-Safe charges a $3 processing fee for each recipient (transcript addressee). Currently enrolled students may order transcripts online using the service provided by Scrip-Safe by going through My.Westminster and paying the processing fee using a credit card.

Official paper transcripts are still available with no fees and may be picked up in the Registrar’s office or mailed through the United States Postal Service. A printable request form is available online.

No requests will be processed for students who have a financial hold or other obligation to the College.

In either case, most requests will be processed within 3-5 working days, however, additional time may be required during peak periods at the end of each semester and following Commencement.
Confidentiality of Student Records

Westminster College abides by the Family Education Rights and Privacy Act as amended. Further information about the confidentiality of student records is available on p. 34 of this catalog, in the Student Handbook and from the Office of Student Affairs.

Official Means of Communication

College offices use email and campus mail as official means of communicating with students. Students are responsible for information provided through those means.

Academic Classification

General academic status are determined by relative totals of semester hours and of grade points.

At the end of the college year, a student is listed in the next higher class, provided that the necessary number of semester hours for the total time in college has been accumulated. Students are classified as first-year students until they have earned 28 semester hours. Other classifications are listed below:

<table>
<thead>
<tr>
<th>Class</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sophomore</td>
<td>28</td>
</tr>
<tr>
<td>Junior</td>
<td>62</td>
</tr>
<tr>
<td>Senior</td>
<td>96</td>
</tr>
</tbody>
</table>

Academic Probation, Suspension and Dismissal

Students must attain the following minimum grade point averages in order to remain in good academic standing:

- At the end of the first semester* (for three or more graded courses) 1.700
- At the end of the second semester* 1.800
- At the end of the third semester* 1.900
- At the end of the fourth and all subsequent semesters* 2.000

Any student who earns below a 1.000 grade point average for any semester shall be placed on academic probation and be subject to academic suspension. In addition, any student who earns below a 1.000 grade point average for any semester shall be notified that he or she is required to meet with the vice president for academic affairs (VPAA) in order to return to the College. Students who do not follow through with this meeting will be dropped from their next semester’s classes. Students who have not yet registered will have a registration hold which will prevent them from registering until the VPAA indicates such a meeting has taken place and the student is allowed to register.

*Semesters in college shall include transfer semesters as well as semesters at Westminster College.
Students who do not attain these minimum cumulative grade point averages shall be placed on academic probation for the next full (Fall or Spring) semester. However, if students who have been placed on academic probation attend Summer Session and raise their GPA to the point where they have achieved the minimum level needed for good academic standing (as defined above), the action which placed them on probation will automatically be rescinded and will not appear on their permanent record.

Students on academic probation should not participate in any extracurricular activities which do not carry academic credit. They are also required to meet with their adviser during the first week of classes to discuss the value of curtailed schedule of classes, improvement of individual study skills, participation in extracurricular activities, and related problems. The adviser will send to the associate dean of the College by the sixth class day of the semester a written report of this meeting, using the form provided by the Office of Academic Affairs.

Students who have not regained good academic standing (as defined above) at the end of the semester for which they have been placed on academic probation are subject to academic suspension. Students who have been placed on academic probation for a third time are also subject to academic suspension. All such decisions shall be made by the Academic Standards Committee. In lieu of academic suspension, this committee may, based on a review of the relevant academic records, elect to place certain students on continued academic probation for the next full (Fall or Spring) semester.

Students who have been placed on academic suspension shall remain separated from the College for a minimum of one calendar year. College courses taken elsewhere during this year of separation may be accepted for transfer credit according to the policy on Transient Credit (see p. 67). Students who are readmitted after having been placed on academic suspension, but who fail to make acceptable progress towards achieving the minimum GPA needed to regain good academic standing (as defined above), are subject to permanent academic dismissal. Students who fail to make reasonable progress toward the degree are also subject to dismissal. These decisions shall be made by the Academic Standards Committee.

Appeal of the Academic Standards Committee’s decisions on suspension and dismissal must be made in writing to the dean of the College. Appeals must be received in the Office of Academic Affairs within two weeks of the student’s receipt of formal notification of suspension or dismissal.

**Readmission Following Academic Suspension**

Students who have been placed on academic suspension may apply for readmission after being separated from the College for a minimum of one calendar year. The application for readmission must be made in writing, using a form which may be obtained from the registrar’s office. The completed application, which must be accompanied by a $200 reservation deposit, is returned to the registrar’s office. This deposit is non-refundable even if the applicant cancels.
Students who are readmitted after being formally separated from the College as the result of being placed on academic suspension must satisfy the graduation and program requirements as specified in the catalog which is in effect at the time of their readmission.

**Academic Recognition**

**Graduation Honors**

A student who has completed all of the requirements for graduation may be graduated with honors, provided that he/she earns a GPA of 3.600 or higher in all academic work completed at Westminster College. For transfer students who have earned a 3.500 or higher GPA at Westminster College, the average for graduation with honors is based upon all graded academic work, including all work taken at other colleges prior to transfer. The three levels of honors and the minimum grade point average for each level are as follows:

- *Summa cum laude* (with highest honor) 3.900
- *Magna cum laude* (with high honor) 3.750
- *Cum laude* (with honor) 3.600

In computing eligibility for honors, the grade point average is obtained by dividing the total grade points earned by the total semester hours carried, exclusive of courses graded on the basis of satisfactory/unsatisfactory.

**Dean’s List**

Full-time students who achieve a grade point average of 3.600 in a minimum of 12 semester hours (not S/U) during the Fall or Spring semesters are recognized by being placed on the Dean’s List. This list is announced twice each year.

**Withdrawal or Leave from College**

**Withdrawal or Transfer**

A student wishing to withdraw or transfer from the College should start the process by making an appointment to see the vice president for student affairs for an exit interview. The purpose of the interview is to assess the student’s present status, to ascertain the reason for withdrawal or transfer, and to direct the student to the next steps to complete the process.
Voluntary Leave of Absence

Students may, upon approval of the vice president for student affairs, elect to take a voluntary leave of absence from their studies at Westminster College. Students who are granted a leave of absence will be permitted to resume their studies subject to the same graduation and program requirements to which they were subject at the time they began their leave, and do not need to re-enter the admissions process if they meet the stipulated conditions for their return.

Any petition for such a leave of absence must be made in writing, and must include reasons to justify the leave. A Leave of Absence form is located in the Office of Student Affairs. A leave of absence will normally be granted only if the circumstances which warrant it are beyond the student’s control, and is not to exceed one semester (fall or spring).

Medical Leave of Absence or Withdrawal
(Voluntary or Involuntary)

When illness, injury, or a psychiatric disability occurs, a student or guardian may request, or the College may require, a medical withdrawal or medical leave of absence (MLOA) from the College. All medical withdrawals or leaves must be approved by the vice president for student affairs. Specific conditions to receive an MLOA or Medical Withdrawal, including the conditions for future re-admittance, are stipulated at the time of the withdrawal or granting of a leave of absence. These conditions may specify what professional medical documentation is required for the withdrawal to be granted, and/or a period of time for a leave. Before the student will be permitted to return to campus, the College may require a professional evaluation or assessment (at the student’s expense) stating the professional expert’s opinion that the student is now capable of meeting the academic and the social standards of the College (which are stated in the Westminster Student Code of Conduct). Students who are granted an MLOA or Medical Withdrawal will be given a “W” (withdrawal) for all courses in which the student was enrolled at the time of the MLOA or Medical Withdrawal.

Grievance Procedures for Involuntary Withdrawal

Refer to the information on “Involuntary Administrative Withdrawal” in the Student Handbook for additional information and grievance procedures related to a withdrawal that is not voluntarily initiated or accepted by the student.

Return to Campus Procedures for Withdrawal or Leave of Absence

Students who have taken a leave of absence and desire to return to campus must complete a Return from Leave of Absence form, providing all required documentation. The form is available at the student affairs office, or can be printed from www.westminster.edu/student/print_forms.cfm. Completed forms should be returned to the student affairs office.
Students who wish to apply for readmission after withdrawing from the College must complete an Application for Readmission form. This form can be printed from www.westminster.edu/acad/registrar/regis_print_forms.cfm, or procured from the registrar’s office, where the completed form must be returned along with a $200 registration deposit.

**Readmission of U.S. Armed Forces Members**

Students who take a leave of absence for service-related reasons will be readmitted with the same academic status as he or she had when last attending or being admitted to Westminster College.

**Summer Session**

Westminster’s Summer Session includes undergraduate and graduate courses. A listing of courses is available in the Office of Adult and Graduate Studies. Also course listings are posted online at www.westminster.edu/admissions/summer and graduate course offerings are posted online at www.westminster.edu/grad.

**Admission Procedure**

Currently enrolled Westminster students and high school graduates accepted for fall admission as degree-seeking students at Westminster may enroll in Summer Session via my.Westminster—no summer application process needed.

Students enrolled in other colleges or universities must contact the Office of Adult and Graduate Studies for a Summer Session application or apply online through the Westminster College website (above). There is a one-time application fee. No official transcript is required unless the student plans to transfer to Westminster. In this case, the student must apply through the Office of Admissions or the Office of Adult and Graduate Studies indicating that entrance during Summer Session is desired.

**Student Regulations**

The College reserves the right to change the regulations governing admission, tuition, the granting of degrees, or any regulation affecting the student body.

**Class Attendance and Excused Absences**

Regular class attendance is essential if students are to realize the full benefits of a college education. Accordingly, Westminster students are expected to attend all classes, unless specifically excused for some valid reason. Although each individual instructor may specify what constitutes a valid excuse, in general excused absences are allowed only for the following reasons:

1. Course-related field trips.
2. Illness that requires confinement to bed on physician’s orders or confinement in a hospital.
3. Death or serious illness in the immediate family.
4. Appearance in court.
5. Co-curricular and extracurricular activities recognized and/or sponsored by the College.

Students are encouraged to participate in extracurricular activities, since these functions are often closely tied in to their professional preparation. Students who are involved in extracurricular or co-curricular activities at Westminster College must make this known to their professors before the end of the add period of each semester, particularly if such participation is anticipated to require them to be off campus at specific times.

Excused absences do not excuse a student from completing the work that is missed. When possible, students should complete the assigned work in advance, or at such time as the professor specifies. It is the student’s responsibility to apprise all appropriate professors of off-campus involvement(s). With the professor’s knowledge of the student’s upcoming absences, conflicts should be minimized.

The Office of Student Affairs will be notified whenever excessive absences occur. Where problems are identified which cannot be resolved by the faculty member and the student, a resolution will be made by the dean of the College.

**Absences from Examinations**

Absence from an announced examination results in a failing grade for the examination, unless suitable arrangements are made for a special examination. A student who seeks such a privilege should petition the instructor in writing prior to the scheduled examination date. If the instructor considers that the petition should be granted, then a note to the effect is added and the petition is presented to the dean of the College. The examination may be given only if the dean also approves the petition.

In the case of athletic championship tournaments that fall during final week, it is the College’s policy to permit those who are approved to participate in these tournaments to reschedule their missed work. Instructors and the dean must be notified in advance of the conflict and students must arrange with their instructors a place and time to make up the work.

**Academic Integrity**

Central to the purpose and pursuit of any academic community is academic integrity. All members of the Westminster community, including students, faculty, staff, and administrators, are expected to maintain the highest standards of honesty and integrity, in keeping with the philosophy and mission of the College.

Academic dishonesty is a profound violation of this code of behavior. Outlined below are examples of and specific consequences for academic dishonesty at Westminster. The list of examples is not meant to be exhaustive, but rather to provide an overview of the community’s common concerns. Students who are unsure as to whether specific behavior not listed here will constitute academic dishonesty should consult with their individual course instructors.
Violations

Violations of the Westminster College Academic Integrity Policy (AIP) include, but are not limited to, the following:

CHEATING

1. Copying answers from another student’s paper during a quiz, test, or examination
2. Divulging answers or information to another student during a quiz, test, or examination, or accepting such aid
3. Using unauthorized aids (e.g., notes or books) during a quiz, test, or examination
4. Collaborating improperly with another student on an open-book or take-home quiz, test, or examination
5. Exceeding the time limit, when one exists, on an open-book or take-home quiz, test, or examination
6. Aiding another student improperly on in- or out-of-class assignments
7. Leaving a testing area to obtain answers or aid
8. Handing in another’s work or ideas as one’s own
9. Taking a quiz, test, or examination with prior knowledge of its contents, when that knowledge has not been authorized or consented to by the instructor
10. Engaging in any activity which may give an unfair academic advantage to oneself or another.

MISCONDUCT

1. Engaging, during a class or testing session, in conduct that is so disruptive as to infringe upon the rights of the instructor or fellow students
2. Submitting the same work, including oral presentations, for different courses without the explicit consent of the instructors
3. Stealing or intentionally damaging or destroying notes, research data, laboratory projects, library materials, computer software (including the intentional passing of a computer virus), or any other work of another member of the Westminster community
4. Acting as or using a substitute in any academic evaluation procedures
5. Depriving others of necessary academic resources
6. Sabotaging the work of another member of the Westminster community
7. Unethically obtaining answers or other information about a quiz, test, or examination before it is administered, even if not a member of the class in which the quiz, test, or examination is given
8. Violating copyright restrictions, i.e., stealing the intellectual property of another.

i wording adopted or adapted from the Ursinus College policy on Academic Honesty www.ursinus.edu/resources/CurrentStudentHandbook.pdf (pp. 11-13).
ii wording adapted from the University of Pittsburgh Law School policy on Academic Integrity www.law.pitt.edu/students/pol_integrity.html.
PLAGIARISM

“Derived from the Latin word for kidnapping, plagiarism is the theft of someone else’s ‘brainchild’—that person’s language, ideas, or research—and the origin of the word conveys the seriousness of such offenses in the view of college teachers and administrators. The reason is that words, ideas, and research are the main forms of currency in academic life.”—Keith Hjortshoj, *The Transition to College Writing* (Boston: Bedford/St. Martin’s, 2001), 172.

1. Quoting or paraphrasing, without proper citation and acknowledgment, the published words, ideas, or work of another (including anonymous publications and online publications)

2. Submitting, as one’s own work, a paper, an oral presentation, or a visual presentation authored wholly or partially by someone else (including commercial services)

3. Borrowing and appropriating, without proper citation and acknowledgement, facts that are not matters of general knowledge, including all statistics and translations, and/or the general idea or logic of another’s argument.

PROVIDING FALSE INFORMATION

1. Furnishing false information to the College for the purpose of obtaining special consideration or privilege (e.g., postponement of an examination or a deadline)

2. Misrepresenting source material or information or participating in the falsification or misrepresentation of citations

3. Falsifying laboratory data, notes, or results, or research data of any type, and presenting it as one’s work.

Process and Consequences

If a course instructor suspects that a student has violated this policy, the instructor will speak with the student, review appropriate materials, and reach a conclusion.

If the instructor determines that a violation has occurred, the following process will apply:

1. The instructor will inform the student that he or she has violated the AIP and that the vice president for academic affairs (VPAA) will be notified.

2. The instructor will impose an academic penalty at his or her discretion (e.g., 0 for the assignment without possibility of revisions, failing grade for the course, or other appropriate academic sanctions).

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i wording adopted or adapted from the Ursinus College policy on Academic Honesty www.ursinus.edu/resources/CurrentStudentHandbook.pdf (pp. 11-13).

iv wording adapted from the Dickinson College Code of Student Conduct www.dickinson.edu/students/code/html#6.
3. The instructor will send the VPAA a concise written explanation of the violation and the penalty.

4. After reviewing the instructor’s explanation of the violation and penalty, as well as the student’s record of previous offenses, the VPAA will take the following additional action:
   a. FOR A FIRST OFFENSE, the VPAA may supplement the instructor’s penalty with further action, up to and including suspension and permanent dismissal, after consultation with the instructor and the Academic Standards Committee. The VPAA may also meet with the student.
   b. FOR A SECOND OFFENSE, the VPAA will impose a one-semester suspension. The VPAA may take further action, up to and including permanent dismissal, after consultation with the instructor and the Academic Standards Committee.
   c. FOR A THIRD OFFENSE, the VPAA will impose a penalty of permanent dismissal from the College.

5. The VPAA will send the student official notification of the penalty for the violation (even if the penalty is solely that imposed by the instructor). The VPAA will send copies of this notification to the instructor and the student’s academic adviser.

6. A copy of the VPAA’s official notification to the student will be kept in the student’s academic file. If there is no second offense, this letter will be removed upon the student’s graduation. If there is a second offense, the letter will become part of the student’s permanent academic record.

7. Within 15 calendar days of the VPAA’s sending official notification of the penalty for the violation, the student may decide to appeal either the finding of a violation or the penalty for the violation.

**Appeals Process**

1. Within 15 calendar days of the VPAA’s sending official notification of the violation, the student will send the VPAA written notification that he or she intends to appeal the finding of a violation. **All letters of appeal must include:**
   - The course for which the violation was reported.
   - The name of the instructor reporting the violation.
   - The semester when the report occurred.
   - The penalty imposed for the violation.
   - The grounds on which the student is appealing.
   - A *detailed* account of the circumstances surrounding the incident which led to the report.
   - The names of the faculty member that the student chooses to serve on his or her AIRB (see 2c. below) and the advisor that the student selects, if applicable (see 4. below).

2. The VPAA will ask the chair of the Committee on Academic Standards to convene an Academic Integrity Review Board (AIRB), made up of the following:
a. two members of the Committee on Academic Standards, chosen by the committee
b. the chair of the department or program in which the violation took place
c. one other faculty member nominated by the student
d. the VPAA, when he or she is not the instructor reporting the violation or when he or she has not imposed a penalty greater than the minimum required by the Academic Integrity Policy. In cases of the VPAA’s recusal, he or she will be replaced by the Chair of the Faculty. When neither the VPAA nor Chair of the faculty can serve, the Chair of the Academic Standards Committee will secure the services of a tenured faculty member to serve on the AIRB.

3. One of the two participating members of the Committee on Academic Standards will chair the AIRB.

4. The student may also select an adviser who is a member of the campus community but who is not a member of the student’s family or a student. This adviser may accompany the student to the Appeals review but may not participate in the questioning herself or himself. The adviser will not be present at the deliberations of the AIRB and is not a voting member of the AIRB.

5. Copies of all materials pertaining to the violation will be maintained in the Office of Academic Affairs. The student has the right to review these materials, but must do so in the presence of either the faculty member he or she nominated to the AIRB or his/her adviser.

6. The AIRB will convene as soon as possible, normally within 30 days, or within 30 days of the beginning of the semester following if the report occurs late in a semester.

7. In conducting its review, the AIRB will interview the student and the instructor separately.

8. The AIRB’s decision to uphold or overturn the finding of a violation will be reached by majority vote held during a meeting of the AIRB with all members in attendance. All discussions and deliberations of the AIRB will be conducted face-to-face and not by email, phone or other electronic means. The standard for overturning a finding of a violation is “more likely than not.”

9. Within 48 hours of the student’s appearance before the AIRB, the chair of the AIRB will send the student and the instructor official notification of its decision on the finding of a violation. In the event that the finding of a violation is overturned by the AIRB, all records of the violation will be removed from the student’s files.

10. If the student wishes to appeal the decision of the AIRB, he or she must do so within seven calendar days of the AIRB’s sending official notification of its decision. This appeal must be made in writing to the President of the College, whose decision will be final.
Additional Stipulations

A student may not withdraw from a class in which he or she has been charged with violating the College’s Academic Integrity Policy, unless he or she successfully appeals the finding that a violation has occurred.

Charges of violating this policy may be brought by an instructor against a student who is not enrolled in the class affected by the violation.

Any member of the Westminster community, including students, staff members, faculty members, and administrators, may bring a charge for a violation of the College’s Academic Integrity Policy. If someone other than a course instructor wishes to bring a charge, he or she can initiate the process by contacting the course instructor, a department chair, or the VPAA.

Copies of all materials pertaining to violations, penalties, and appeals will be kept in the Office of Academic Affairs. The VPAA will send to the Academic Standards Committee a monthly report on the number and nature of violations of the policy.

Intention to Graduate

Students who plan to graduate must file an application for graduation during the first semester of the senior year. Forms are available in the registrar’s office.

Institutional Testing

All students are required to participate in testing administered through the Office of the Director of Institutional Research. Such testing is normally done when students first enter the College and prior to graduation. By collective responses from students, the College can evaluate its programs. All individual responses are confidential, and reports using student data contain only group statistics.

Pre-Professional Programs

Westminster College prepares students for professional studies in many disciplines: medicine, law, the ministry, business administration, dentistry, engineering, social work, and numerous others. Students who enter such programs have an undergraduate major in a standard disciplinary or interdisciplinary field of study in the liberal arts. Westminster also offers individual interdisciplinary programs to meet specific professional goals. Westminster has a strong record in preparing students for graduate and professional schools.

Some professional schools will admit well-qualified students before they complete their undergraduate degree programs. Under the following conditions, a student may be granted a baccalaureate degree by Westminster College upon satisfactory completion of a professional program at an accredited school: completion of a minimum of 96 semester hours at Westminster with a grade point average of at
least 2.500; completion of all College requirements (with the exception of the senior capstone requirement); and a minimum of 24 semester hours in the major with grades of C- or better. The arrangements must be approved in advance by the major department and the Academic Standards Committee.

**Pre-Law Program**

The Pre-Law Program is designed to help students make informed decisions regarding preparation for law school and a career in the law. Students who plan to attend law school ordinarily pursue a standard disciplinary or interdisciplinary major, along with challenging electives outside the major. The goal is to develop the skills of critical thinking and analysis, clear and persuasive writing, and a broad understanding of human nature and society. The Pre-Law Program provides information and advice on career opportunities in law and law-related fields and assists students in preparing for admission to law schools. As part of this program, students are offered a variety of experiences, including visits to campus by practicing lawyers and law students, trips to area law schools, workshops on applying to law schools, and an annual trip to the Supreme Court in Washington, D.C.

The Pre-Law Program is organized by the Law Professions Advisory Committee (Law PAC) which includes faculty from a variety of disciplines. The Westminster Student Pre-Law Society allows students to participate in the planning of programs for Pre-Law students. The Westminster Legal Professions Advisory Committee consists of three Westminster alumni who are practicing attorneys and serve rotating three-year terms. The members of this committee come to campus twice a year to speak to students regarding trends in the law and legal profession, and are available to students for mentoring and advice.

**3-3 Law Program**

Westminster also participates in a cooperative program with the Duquesne University Law School, through which students may be eligible to enter Duquesne after three years of undergraduate study at Westminster. Under this agreement, a student begins law school at Duquesne University Law School at the end of his/her junior year at Westminster. The student must complete the full three year law school program at Duquesne. The student must complete all major, minor, and liberal studies requirements by the end of the junior year at Westminster, including capstone. During the junior year, the student will take the LSAT (Law School Admissions Test), formally apply to Dr. Ed Cohen and Dean Jesse T. Mann for a recommendation to Duquesne for admission into this program, and have a successful interview with the admissions director at the Duquesne law school. Contact Dr. Cohen for additional information.

**Health Sciences (Pre-Med, Pre-Dent, Pre-Vet, etc.)**

Students interested in careers in health sciences (medicine, dentistry, optometry, podiatry, physician assistant, physical therapy, veterinary medicine, and others) can effectively work toward their goals at Westminster College. Students typically prepare for these career paths by completing prescribed undergraduate courses and
taking a professional program–specific national aptitude exam. At Westminster, the Medical Professions Advisory Committee (Med PAC) advises students on course selections, educates students about careers and professional programs, provides study sessions for aptitude exams, and helps students through the application process. The committee provides opportunities for students to meet with practitioners in various fields and with admissions staff of regional professional schools. Med PAC also writes committee letters of recommendation for qualified students. Westminster’s curriculum and advising program have been highly successful in helping students gain admittance to health science programs. Further information is available from the chair of the Medical Professions Advisory Committee, Dr. John Robertson (Department of Biology).

**Master of Occupational Therapy**

Through a cooperative program, Westminster graduates in the psychology–pre-occupational therapy concentration may be eligible to enter the master of occupational therapy program at Duquesne University. Additional information on this program is available by contacting the Westminster Department of Psychology.

**Master of Physician Assistant**

Westminster participates in a cooperative physician assistant program with Duquesne University. Students admitted into the program spend three years at Westminster, followed by three years at Duquesne. After students have successfully completed 128 semester hours, they receive a B.S. in biology from Westminster College. After completing all six years of the program, they receive an M.P.A. from Duquesne University. Information on this program, including specific qualifications and requirements, is available by contacting the chair of the Medical Professions Advisory Committee.

**3-4 Dentistry Program**

Students in this program spend three years at Westminster, followed by four years at Case Western Reserve University. After students have successfully completed 128 semester hours, they receive a B.S. degree in biology from Westminster College. After completing all seven years of the program, they receive a D.M.D. from Case Western Reserve University. Interested students must apply to and interview with Case Western Reserve University prior to beginning their studies at Westminster College. Additional information on this program is available by contacting the chair of the Medical Professions Advisory Committee.

**Doctor of Physical Therapy**

Westminster participates in a cooperative physical therapy program with Duquesne University. Students admitted into the program spend three years at Westminster, followed by three years at Duquesne. After students have successfully completed 128 semester hours, they receive a B.S. degree in biology from Westminster College. After completing all six years of the program, they receive a D.P.T. from
Duquesne University. Additional information on this program, including specific qualifications and requirements, is available by contacting the chair of the Medical Professions Advisory Committee.

**3-2 Engineering**

This program affords students who are seeking an engineering career the advantages of a liberal arts education, personal attention in small classes, and training in the approaches and techniques used by scientists. While at Westminster, students in the 3-2 engineering program are either physics or chemistry majors with a concentration in 3-2 engineering. Following three years at Westminster, students in the program complete the specialized courses leading to an engineering degree at any accredited engineering school. At the conclusion of the program, bachelor of science degrees are awarded from both institutions. Recent Westminster students participating in the 3-2 engineering program have pursued studies in mechanical engineering, electrical engineering, mining engineering, nuclear engineering, and chemical engineering. In recent years, Westminster students have successfully completed their engineering degrees at Case Western Reserve University, the University of Pittsburgh, Youngstown State University, and West Virginia University.

Students entering the 3-2 engineering program should have at least three years (preferably four years) of high school mathematics. All should start the mathematics sequence with MTH 150, MTH 152, or MTH 250 in the first year. Most students in the program will take PHY 151 and PHY 152 in the first year. Students interested in pursuing chemical engineering or a related discipline take CHE 117 and CHE 180 in the first year.

During the Fall Semester of the third year at Westminster, students should apply for admission to the engineering school. Students in the 3-2 program must satisfy Westminster’s all-college requirements with the exception of the senior capstone requirement and must complete the specified courses in their major. More information is available from the 3-2 engineering program coordinator, Dr. Douglas N. Armstead.

**3-2 Environmental Science**

Westminster participates in a cooperative program with Duquesne University where students may be eligible to enter the two-year Duquesne program leading to the master of science degree in environmental science and management after three years of undergraduate study at Westminster. Upon successful completion of the requirements, a bachelor of science in environmental science is awarded from Westminster, and a master of science is awarded from Duquesne. Additional information on this program is available from Dr. Helen Boylan, chair of the Environmental Science Committee.
Academic Departments and Majors

Biology

Professor: Ann E. Throckmorton
Associate Professors: Joseph M. Balczon, Joshua C. Corrette-Bennett, Marosh Furimsky, John C. Robertson, Katherine L. Robertson
Assistant Professors: Kerri Cornell Duerr, Karen K. Resendes
Visiting Assistant Professor: Veronica M. Porterfield
Chair: Dr. Corrette-Bennett

Degree Offered: Bachelor of Science
Major Programs: Biology, Molecular Biology
Interdisciplinary Programs: Environmental Science, Neuroscience
Minor Programs: Biology, Molecular Biology, Environmental Studies
Teacher Certification: Biology

The biology department realizes its objectives in students who:

- demonstrate breadth of knowledge about current biological concepts and principles, including recognition of the inter-relatedness of knowledge among the various biological sub-disciplines;
- acquire a foundation of knowledge and skills that prepare them for a wide range of professions;
- utilize observational, investigational, and critical-thinking skills, including the ability to develop new ideas, to design, implement, and evaluate scientific concepts and theories, and to assess, interpret and understand data and their meaning;
- demonstrate an understanding of diversity, organization, and functioning of the living world sufficient to insure informed participation in society and to exhibit a capacity for bioethical decision-making;
- communicate scientific ideas through written and oral presentation;
- participate effectively in collaborative learning with faculty and other students;
- participate in co-curricular educational opportunities that enhance interactions with faculty and students outside of the classroom.

For information on pre-professional programs, see p. 78. Qualified non-science majors are invited to take courses at all levels.
Many professional and graduate schools require one full year of inorganic chemistry, organic chemistry, and introductory physics for admission. Specific biology courses may also be recommended for particular professional or graduate programs. It is the responsibility of the student to identify and complete specific programmatic requirements of professional and graduate schools.

The Major in Biology: Requirements for a major in biology are met by taking a minimum of 64 semester hours in major courses which must include the following:

1) BIO 201, 202, 203 and 206;
2) three courses at 300 level (one course from each of three concentrations):
   - Cell Biology and Genetics: BIO 301 or 302 or 303 or 304
   - Evolution, Form and Function: BIO 334 or 337 or 338 or 363, or both 335 and 336
   - Biodiversity and Ecology: BIO 360 or 361
3) eight semester hours of elective courses that must be numbered 300 or above (excluding BIO 590, and limited to no more than four semester hours of BIO 620 and eight semester hours of BIO 660-690);
4) Senior Capstone BIO 601 and 602. Honors Scholars majoring in biology or molecular biology are expected to attend and participate in BIO 601 while they write their Honors proposal.

Supporting courses for the major in biology:
CHE 117\(^1\), CHE 261\(^1\), PHY 141\(^1\)

Twelve additional semester hours of supporting courses from CHE 180, CHE 230, CHE 262, CHE 380, MTH 131 or MTH 150, MTH 152, PHY 142, and CS 151. Courses must be chosen from at least two different disciplines.

No grade lower than C- may be counted toward any requirement for the major.

The Major in Molecular Biology: Requirements for a major in molecular biology are met by taking a minimum of 64 semester hours in major courses, which must include the following:

1) Foundations — BIO 201, 202, 203 and 206;
2) courses specific for the major — BIO 302 and 303;
3) Three Electives:
   - one of the following: BIO 401 or 403;
   - one of the following: BIO 301 or 304 or 334;
   - a third elective from the following: 301 or 304 or 334 or 338 or 401 or 403;
4) At least four semester hours of research, as BIO 590, 620, or 660-690;
5) Senior Capstone BIO 601 and 602. Honors Scholars majoring in biology or molecular biology are expected to attend and participate in BIO 601 while they write their Honors proposal.

Supporting courses for the major in molecular biology:
CHE 117\(^1\), CHE 261, CHE 262\(^1\) or CHE 380, MTH 131 or MTH 150 or MTH 152, and PHY 141\(^1\) or PHY 151\(^1\).

No grade lower than C- may be counted toward any requirement for the major.

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\(^1\)Many professional and graduate schools require one full year of inorganic chemistry, organic chemistry, and introductory physics for admission. Specific biology courses may also be recommended for particular professional or graduate programs. It is the responsibility of the student to identify and complete specific programmatic requirements of professional and graduate schools.
The Minor in Biology: Requirements for a minor in biology are met by taking 24 semester hours of courses in biology, including BIO 201, 202, 203, and one course in each of the following concentrations:

1) Cell Biology and Genetics – BIO 301 or 302 or 303 or 304;
2) Form and Function – BIO 334 or 337 or 338 or 363, or both 335 and 336;
3) Biodiversity and Ecology – BIO 360 or 361.

No grade lower than a C- may be used to satisfy any requirement for the minor.

The Minor in Molecular Biology: Requirements for a minor in molecular biology are met by taking 24 semester hours in six specific courses: BIO 201, 202, 203, 302, 303, and 401 or 403.

No grade lower than a C- may be used to satisfy any requirement for the minor.

NOTE: A student may not use any combination of the following majors to complete a double major: biology, molecular biology, neuroscience, or environmental science. Students must petition the biology department for a biology or molecular biology minor.

Interdisciplinary Programs: Requirements for environmental science and neuroscience are found on pages 108 and 135.

Secondary Education Teacher Certification: To be eligible for certification in biology, students must:

- successfully complete all requirements for the major, as described above, including one course in each of the three concentrations;
- maintain a 3.0 total GPA throughout their college career and attain a 3.0 within the major prior to EDU 451 (fall, senior year; other prerequisites for EDU 451 are found on p. 103).
- fulfill the requirements for graduation;
- successfully complete the minor in secondary education*

Students who are interested in secondary education should contact the chair of the Department of Education as soon as possible for complete information and select a co-adviser in the Department of Education at the beginning of their sophomore year. If all requirements are to be completed in four years, careful planning in both the major field and in the minor is essential.

3 + 4 Pre-Dental/Dental Articulation Program (Westminster College and Case Western Reserve University School of Dental Medicine): Successful completion of this program leads to a BS degree from Westminster and a DMD degree from Case Western. Students interested in this program must apply directly to the School of Dental Medicine at Case Western at the same time as applying to Westminster; students must enter Westminster College already accepted into this program by Case Western. For information on participation in this program contact the Chair of MedPAC.

*Requirements for the minor in secondary education are listed under the Department of Education.
Once admitted to the program, students must maintain minimum science-course and overall GPAs of 3.25 at Westminster, and must score at minimum 18 on both the Academic Average and Perceptual Abilities Sections of the Dental Admission Test (taken in year three at Westminster).

Specific Westminster course requirements for the program include:

BIO 201, BIO 202, BIO 203, BIO 206, BIO 301, BIO 303, BIO 335, BIO 336; CHE 117, CHE 180, CHE 261, CHE 262, CHE 381; PHY 141 (or 151), PHY 142 (or 152); INQ 111, WRI 111, SPE 111. In addition, students must complete all IP courses, cluster course and PE course requirements of the Westminster curriculum.

Students who are officially accepted into the Case Western portion of the program are exempt from BIO 601 and BIO 602 (Biology capstone). For more detailed information on participation in this program, contact the Chair of MedPAC.

3 + 3 Pre-Physician Assistant/Physician Assistant Articulation Program (Westminster College and Duquesne University): Successful completion of this articulation program leads to a BS degree from Westminster and a MPA degree from Duquesne after a total of six years (three years at Westminster, followed by three more years at Duquesne). Students interested in the articulation agreement described below should enter into this agreement with the full understanding that their preparation for a career in physical therapy begins the moment they step onto the Westminster campus. Transfer students and students who choose to enter as exploratory (undeclared major) are not eligible for this program. Students participating in this articulation agreement must complete the Westminster course requirements within three years—the First Year Program, the liberal arts curriculum, and specific natural and physical science prerequisites—while maintaining an average grade of B or higher.

Students interested in this program must enter Westminster College as a biology major with a minimum combined verbal/math SAT score of 1100, or an ACT composite score of 24. Students in the PA articulation must maintain minimum pre-requisite and overall GPAs of 3.0 at Westminster, with a grade of C or better in all pre-requisite courses. Students must complete all science courses at Westminster and all program requirements within six semesters. To be eligible for transfer to Duquesne’s graduate program after 3 years, students must have earned 100 credit hours at Westminster, and met all other published Duquesne admissions requirements. A maximum of five qualified Westminster students per year will be admitted to Duquesne under this program.

Specific Westminster course requirements for the 3 + 3 Pre-Physician Assistant/Physician Assistant Articulation Program include: BIO 201, BIO 202, BIO 203, BIO 206, BIO 301; either BIO 302 or BIO 303; either BIO 360 or BIO 361; one additional 300 or higher level qualifying biology course; CHE 117, CHE 261, CHE 262; PHY 141 (or 151), PHY 142 (or 152); INQ 111, WRI 111, SPE 111. In addition, students must complete all IP courses (including PSY 101), cluster courses and PE course requirements of the Westminster curriculum.

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1 If a student’s GPA drops below 3.0 at one point during the first four semesters, a student will be granted a one semester probationary period. If their GPA drops under 3.0 again during the first four semesters, or is under 3.0 at the end of the fifth semester, they will not be eligible to participate in the program.
Students who are officially accepted into the Duquesne portion of the program are exempt from BIO 601 and BIO 602 (Biology capstone). For more detailed information on participation in this program, contact the Chair of MedPAC.

**3 + 3 Pre-Physical Therapy/Physical Therapy Articulation Program (Westminster College and Duquesne University):** Successful completion of this program leads to a BS degree from Westminster and an DPT degree from Duquesne after a total of six years (three years at Westminster, followed by three more years at Duquesne). Students interested in the articulation agreement described below should enter into this agreement with the full understanding that their preparation for a career as a physical therapist begins the moment they step onto the Westminster campus. Transfer students and students who choose to enter as exploratory (undeclared major) are not eligible for this program. Students participating in this articulation agreement must complete the Westminster course requirements within three years - the First Year Program, the liberal arts curriculum, and specific natural and physical science prerequisites - while maintaining an average grade of B, or higher.

**Students interested in this program must enter Westminster College as a biology major with a minimum combined verbal/math SAT score of 1100, or an ACT composite score of 24.** Students in the PT articulation must maintain minimum pre-requisite and overall GPAs of 3.0 at Westminster¹, with a grade of C or better in all pre-requisite courses. Students must complete all science courses at Westminster and all program requirements within six semesters. To be eligible for transfer to Duquesne’s graduate program after 3 years, students must have earned 100 credit hours at Westminster, engaged in 100 hours of physical therapy experience in two clinical settings, and met all other published Duquesne admissions requirements. A maximum of five qualified Westminster students per year will be admitted to Duquesne under this program.

Specific Westminster course requirements for the 3 + 3 Pre-physical Therapy/Physical Therapy Articulation Program include: BIO 201, BIO 202, BIO 203, BIO 206; either BIO 301 or BIO 302 or BIO 303; either BIO 360 or BIO 361; one additional 300 or higher level qualifying biology course; CHE 117, CHE 261, CHE 262; PHY 141 (or 151), PHY 142 (or 152); INQ 111, WRI 111, SPE 111. In addition, students must complete all IP courses (including PSY 101), cluster courses and PE course requirements of the Westminster curriculum.

Students who are officially accepted into the Duquesne portion of the program are exempt from BIO 601 and BIO 602 (Biology capstone). For more detailed information on participation in this program contact the Chair of MedPAC.
Chemistry

Associate Professors: Helen M. Boylan, Martha R. Kellner, Timothy A. Sherwood, Peter M. Smith
Assistant Professors: Sarah A. Kennedy, Larry S. Miller
Visiting Assistant Professor: Dr. Kristin Butterworth
Chair: Dr. Sherwood

Degree Offered: Bachelor of Science
Major Program: Biochemistry, Chemistry (Advising Pathways: Professional Chemist, Pre-Med, Forensic Science, Secondary Education, Pre-Chemical Engineering, etc.)
Interdisciplinary Program: Environmental Science
Minor Program: Chemistry
Teacher Certification: Chemistry, General Science

The Department of Chemistry, through its courses, laboratory studies, seminars, and internships, introduces students to fundamental ideas in chemistry and encourages awareness of the natural world. The chemistry program, which is approved by the American Chemical Society, prepares graduates for careers as professional chemists, chemistry teachers, other technical professions, or entrance into graduate or health profession schools. The faculty guide students to an understanding of, and the ability to apply, important chemical principles. Classroom discussion, seminars, and laboratory projects in synthesis, analysis, and physical measurement provide the experiences needed to achieve these goals. The departmental faculty believe that the study of chemistry in these ways enables students to develop critical thinking skills, to use logical reasoning, to improve problem-solving skills, and to clearly and effectively communicate science. Students also explore ethical responsibilities for scientific and technical work in society and relate the accomplishments and expressions of their discipline to those of other disciplines.

The Major in Biochemistry: Students majoring in biochemistry become candidates for the B.S. degree by completing 64 semester hours of required courses. Requirements for a major in biochemistry are CHE 117, 180, 230, 261, 330, 351, 352, 380, 382, 385, 600 or 660, 601 and 602, and BIO 201. Students must complete eight semester hours of in-depth courses, four credits from each of the following two lists of courses:

<table>
<thead>
<tr>
<th>In-depth Biology Elective</th>
<th>In-Depth Chemistry Elective</th>
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<tr>
<td>BIO 301</td>
<td>CHE 262, CHE 335, CHE 340, CHE 375</td>
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<td>BIO 303</td>
<td>CHE 610, 611</td>
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<td>CHE 620</td>
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<td>MTH 152</td>
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</table>

In addition, candidates must complete MTH 150 and PHY 141 and 142, or 151 and 152.
The Major in Chemistry: Students majoring in chemistry become candidates for the B.S. degree by completing 62 semester hours of required courses. Students may tailor this curriculum to meet their career goals. Career goals include professional chemist, medicine, forensic scientist, secondary education certification*** and engineering. Requirements for a major in chemistry are CHE 117, 180, 230, 261, 330, 335, 351, 352, 380, 600 or 660, 601 and 602. Students must complete 10 semester hours of in-depth courses from the following lists of courses:

- CHE 2622
- CHE 340
- CHE 332
- CHE 375
- CHE 382
- CHE 385
- CHE 391
- CHE 590
- CHE 610, 611
- CHE 620
- MTH 250
- PHY 221

In addition, candidates must complete MTH 150 and 152 and PHY 151 and 152.

The chemistry program is approved by the American Chemical Society Committee on Professional Training. All chemistry graduates can earn an ACS certified degree. No grade lower than C- may be used to satisfy any course required for the chemistry major or the biochemistry major.

All junior and senior biochemistry and chemistry majors are required to participate in a weekly seminar. Seniors must complete comprehensive examinations that reflect student learning over the complete four-year program and must present their senior project at a scientific meeting.

NOTE: Students may not double major in biochemistry and chemistry.

The Minor in Chemistry: Requirements for a minor in chemistry are 24 semester hours of chemistry courses, CHE 117, 180, 230, 261, 330, and 380. NOTE: CHE 330 prerequisites are MTH 150 and PHY 141 and 142 or 151 and 152.

Pre-Professional Programs: See p. 78.

Interdisciplinary Programs: Requirements for environmental science can be found on p. 108.

***Secondary Education Teacher Certification: To be eligible for certification in chemistry, students must successfully complete all requirements for the chemistry major as set out above, meet the requirements for graduation listed on p. 55, and successfully complete the minor in secondary education. Requirements for this minor are listed under the Department of Education.

The prerequisites for admission to the Senior Block are a cumulative GPA of 3.000 in all college work and 3.000 in the major. For chemistry certification, “in the major” is defined as all chemistry courses taken as designated by the CHE prefix.

Students who are interested in secondary education should contact the chair of the Department of Education as soon as possible for complete information. If all requirements are to be completed in four years, careful planning in both the major field and in the minor is essential.
Communication Studies, Theatre, and Art

Professors: David L. Barner, Peggy L. Cox**
Associate Professor: Colleen M. Burke, Scott A. Mackenzie*
Assistant Professors: Keith F. Corso, Terry D. Jachimiak, Kurt R. Roscoe
Lecturer: Bradley L. Weaver
Visiting Assistant Professor: Summer E. Zickefoose
Chair: Dr. Barner

Degree Offered: Bachelor of Arts
Major Programs: Broadcast and Digital Communications, Communication Studies, Fine Art, Media Art, Theatre
Minor Programs: Broadcast Communications, Communication Studies, Fine Art, Media Art, Theatre

Broadcast and Digital Communications

The Major in Broadcast and Digital Communications: The objective of the broadcast and digital communications program is to prepare students for entry-level and subsequent management positions in community media: radio, television, cable, and a range of other organizations including government, education, industry, public relations, and health fields. Classroom lectures, in-class laboratory experience, and hands-on experience at Titan Radio Digital 88.9 FM and the Westminster Cable Network will be coordinated to provide students with a theoretical background as well as practical performance skills. Digital 88.9 FM and Westminster Cable Network productions, air shifts, and crew activities are viewed as a logical extension of the classroom and in-class laboratory experiences and are treated as co-curricular activities in which reinforcement of theory and understanding and competency are of prime importance. Students are assigned to various positions in the stations based on ability and performance. Auditions are required for all on-air talent.


Majors in broadcast and digital communications are required to complete a total of 40 hours of broadcast and digital communications course work which include BC 102, 111, 120* (4 semester hours of practicum), 251, 253, 311, 601, 602, and at least 16 semester hours of broadcast and digital communications electives. Only four of these 16 semester hours may be earned by completing internships (BC 590).

In addition, the broadcast and digital communications major is required to complete the following courses outside the major: COM/THE 151, PS 101 or 102 or 104, and ART 306. A minimum grade of C- is required for all supporting courses in the major. All broadcast and digital communication majors are required to pass a comprehensive practical and written exam prior to enrolling in senior studies, BC 601 and 602. This exam is administered each January and may be taken after the completion of BC 102, 111, 251, and 253.

*Only one semester hour of BC 120 broadcast practicum may be taken per semester. One semester

*On Sabbatical during Fall 2012
**On Sabbatical during Spring 2013
hour of BC 120 must be working with TV remote broadcasts. The remaining three required hours can be in any area approved by the department. Department approval is required for all BC 120 classes. A maximum of six semester hours of BC 120 credit is allowed.

**Sports Broadcasting Concentration:** The following electives are recommended for majors who wish to specialize in sports broadcasting:

BC 302 OR 303, 309, 312, 590 and COM 230
BC 120 experiences should be with WNW, WCN, or wcn247.com sports departments.

Students should complete a minor in public relations or media art.

**The Minor in Broadcast and Digital Communications:** The minor in broadcast and digital communications requires BC 102, 111, 120 (two semester hours), 251, 253 and eight semester hours of electives for a total of 26 hours. Only four elective semester hours may be via an internship (BC 590).

**Communication Studies**

**The Major in Communication Studies:** The communication studies major offers a broad foundation in communication theory, opening students to a wide range of occupational choices. Students of communication studies investigate the theory of human interaction in various contexts and learn to apply that theory through practical application.

The major emphasizes effective and ethical communication in professional contexts. Students learn to apply their knowledge to real world situations, including communication in interpersonal and group settings, public speaking, organizations and mass media.

The major in communication studies requires 36 semester hours of communication studies courses. Communication studies majors must complete a minor in another field.

Majors in communication studies are required to complete the following:

- COM 201 Interpersonal Communication (4 SH)
- COM 202 Small Group Communication (4 SH)
- COM 205 Mass Communication (4 SH)
- COM 590 Internship (4 SH)
- COM 601 (4 SH)

Majors must also complete four electives from the following to total 16 semester hours of electives:

- COM 151 Voice and Diction (4 SH)
- COM 203 Professional Presentations (4 SH)
- COM 207 Business and Professional Communication (4 SH)
- COM 225 Communication Ethics (4 SH)
- COM 230 Social Media and Web Planning (4 SH)
- COM 251 Oral Interpretation (4 SH)
- COM 301 Electronic Communication (4 SH)
- COM 303 Sales Communication (4 SH)
- COM 405 Political Communication (4 SH)
- COM 410 Advanced Topics (4 SH)
The Minor in Communication Studies: Minors in communication studies are required to take any six communication courses (excluding the introductory speech course). A total of 24 semester hours is required for the minor. Only one of the six courses may be an internship (COM 590). Any student with a major in the Department of Communication Studies, Theatre, and Art who takes a COM course to fulfill a requirement in their major cannot count that course toward the minor in communication studies.

Broadcast communications majors who wish to have a communication studies minor may not use BC 253/COM 205 to fulfill the minor requirements. COM 303 may be used to fulfill the minor as long as the same course under the BC prefix (BC 303) has NOT been used to fulfill the broadcast communications major. Additionally, COM 151 may also be used by BC majors to satisfy a communication studies minor.

Theater

The Major in Theatre: The undergraduate curriculum in theatre consists of 40-48 semester hours of study and is designed to introduce the student to the content and structure of theatre as an important cultural institution, and to encourage the student to explore both its theoretical and its practical aspects. The department anticipates that most theatre majors will pursue additional theatre graduate study.

Take all of the following:
THE 102 Introduction to Acting
THE 111 Technical Production
THE 404 Directing for the Theatre
THE 301-306 Theatre Practicum (1 SH each)

Take one of the following:
THE 370 Theatre History I
THE 371 Theatre History II

Take one of the following:
THE 251 Oral Interpretation
THE 151 Voice and Diction

Take one of the following:
THE 202 Acting II
THE 321 Basic Performance Design

Take both of the following:
PE 270 Dance I
PE 272 Dance II
(fulfills two credits of PE requirement)

Two semesters of:
THE 114 Technical Practicum (1 SH)

Capstone:
THE 601 Capstone I (2 SH)
THE 602 Capstone II (2 SH)

Electives:
4-12 hours of Theatre electives
We recommend that at least one four credit elective course is a dramatic literature course.

No more than eight credits of THE 211-213, 255 may be counted toward the theatre major.

The Minor in Theatre: The minor in theatre consists of a minimum of 24 and a
maximum of 32 semester hours. The course of study for the theatre minor is:

**Take all of the following:**
- THE 102  Introduction to Acting
- THE 111  Technical Production
- THE 321  Basic Performance Design
- THE 114  Technical Practicum (1 SH)

**Take one of the following:**
- THE 370  Theatre History I
- THE 371  Theatre History II

**Take three credits from:**
- THE 301-306  sequence (1 SH each)

**Elective:** 4-12 hours of theatre electives

No more than eight credits of THE 211-213, 255 may be counted toward the theatre minor.

**Art**

Students may choose one of two majors or minors: fine art or media art.

**The Major in Fine Art:** The fine art major is designed to meet the needs of the student who is interested in pursuing study in a variety of studio areas. Students are introduced to diverse art forms through foundation studies. First-year students must take the foundation courses prior to electives or upper-level courses. Art electives enable students to focus upon a specific concentration prior to taking the senior capstone course.

Majors in fine art are required to take a minimum of 40 semester hours up to a maximum of 48 semester hours. A mandatory portfolio review will be conducted in March of the sophomore year or after completion of at least 16 hours. This will enable faculty to assess a student’s progress and help students make informed decisions about where to focus their studies in art.

The following are required courses in a recommended, but not mandatory, sequence:

A.) Foundation Requirements:
- ART 101, 102, 200, ART 107 or other art history  (16 credits)

B.) Painting Requirements:
- ART 104, 108, or 201 (choose one)  (4 credits)

C.) 3D Studio Requirements:
- ART 106, 208, 218, or 202 (choose one)  (4 credits)

D.) Art Electives:
- Minimum three courses, maximum five courses  (12-20 credits)

E.) Capstone Studio Project:
ART 601 Fall Term senior year (2 credits)

F.) Capstone Studio Exhibit:
ART 602 Spring Term senior year (2 credits)

Total hours may not exceed 48.

The Major in Media Art: This major is designed for students who wish to pursue their artistic interests through media technology. Majors are required to complete 44 hours in their major plus an additional 16 hours of support courses outside their major for a total of 60 semester hours. Media art majors are advised to declare their major by the beginning of the sophomore year.

The media art major requires a year of study at the Art Institute of Pittsburgh (AIP) during the junior year. Westminster College requires that media art majors take all courses during their junior year at AIP, in classroom. Media art courses require immediate input and critique from the instructor. In addition, immediate and in-person dialogue between the student and instructor are critical components to quality media art education. Therefore, online media art courses offered by AIP are currently not accepted for credit.

Majors in media art are required to complete the following (14 semester hours):
- MA 109 Computer Graphic Art (4 SH)
- MA 306 Digital Photography (4 SH)
- MA 590 Internship (2 SH)
- MA 601 and 602 Capstone (2 SH each)

Also take one year of study at the Art Institute of Pittsburgh (graphic design or photography only)*. (30 semester hours)

Also complete these courses outside the major: (16 semester hours)
- ART 102 Foundation Drawing (4 SH)
- BC 253 Mass Communications (4 SH)
- PR 202 Advertising and Public Relations (4 SH)

*ART 102 and MA 109 must be taken before attending the Art Institute.

The Minor in Fine Art: 28 semester hours

Required courses: ART 101, 102, 200, one painting course, one additional 3D course, two electives (seven courses total). Students may also take additional art courses as general electives toward graduation.

The Minor in Media Art: 28 semester hours

Required courses: ART 102, MA 109, MA 207, MA 250, MA 306, MA 220 or BC 253, and COM 301. This minor may be completed on campus.

Economics and Business
Professors: David O. Cushman*, Daniel E. Fischmar, Jesse R. Ligo Jr., Gail L. Miller
Associate Professor: David C. Smith
Assistant Professors: Jacque L. King, Rotua Lumbantobing
Lecturer: Betty P. Talbert
Chair: Dr. Cushman

Degree Offered: Bachelor of Science
Major Programs: Accounting, Business Administration, Economics
Interdisciplinary Programs: Financial Economics, International Business, Quantitative Economics
Minor Programs: Accounting, Economics, Human Resources, Marketing

Westminster’s Department of Economics and Business strives to provide students with the concepts, the analytical tools, and the ethical foundation they will need to begin careers in business and government or to pursue graduate study in accounting, business, economics, law, or other managerial disciplines.

Students earn permission to enroll in sequential and advanced courses in accounting, business, and economics by completing the stipulated prerequisite courses with a grade of C- or better.

The Department of Economics and Business requires its students to earn not only a grade point average of 2.000 for courses taken in their major, but also to earn grades of C- or better in each course stipulated as supporting major and minor programs in the department.

MAJOR PROGRAMS

The Major in Accounting: Forty semester hours in accounting, comprising ACC 201, 202, 300, 305, 306, 310, 320, 350, 410, 601 (capstone course); 24 hours of supporting courses, comprising ECO 150; BA 220, 230, 310, 325; and MTH 131 or equivalent.

Pennsylvania’s State Board of Accountancy follows the national educational standard for granting a CPA license by requiring 150 semester hours of undergraduate or graduate level courses. At least 36 hours must be in accounting and accounting related subjects such as auditing, tax, finance, and business law. Students should consider class work beyond the 128 semester hours required to graduate in order to take advantage of opportunity to achieve the CPA licenses’ 150 credit hour requirement.

The courses listed for Westminster’s major in accounting meet the requirements for sitting for the CPA examination in the state of Pennsylvania after graduation. Generally, the Department of Economics and Business offers courses that meet the CPA licensing for the states of Pennsylvania and Ohio and other states requiring 150 semester hours for CPA licensure. Because CPA exam education requirements vary state-by-state, students intending to sit for the CPA examination should discuss their intent with Mr. Ligo or Mr. Smith during their junior year, particularly if they plan to sit for the CPA exam in states other than Pennsylvania.

*On Sabbatical during Fall 2012
The Major in Business Administration: Thirty-six semester hours in business, comprising BA 140, 220, 305, 310, 300 or 325, 350, two other BA courses at the 200 level or higher (except Field Experience/Internship and SIFE), and BA 601 (capstone) or 602 (capstone, with instructor permission); 24 hours of supporting courses, comprising ECO 150, 152, and one additional ECO course (except ECO 220), ACC 201, 202, and MTH 131 or equivalent.

Students may opt to focus their studies in the areas of finance, human resource management, international business, or marketing by enrolling in related elective courses offered by the Department of Economics and Business. Students may consider these course suggestions:

- **Finance**: BA 300, 365, 380; ECO 340
- **Human Resources Management**: BA 360, 361, 362
- **International Business**: BA 365, 410, 602; ECO 310 or ECO 320
- **Marketing**: BA 230, 390, 410; PR 101, 202

The Major in Economics: Forty semester hours in economics, comprising ECO 150, 152, 220, 310, 320, four other ECO courses at the 200 level or higher (except Field Experience/Internship), and 601 (capstone); 12 hours of supporting courses, comprising MTH 131 or equivalent, ACC 201, and ACC 202 or BA 350.

- **International Business Major**: See p. 111.
- **Quantitative Economics Major**: See p. 147.

A student may complete two majors offered through the department if, in addition to the first major, he or she successfully completes all requirements for the second major including its capstone, with at least 28 semester hours of graded departmental course work in the second major that does not duplicate any in the first major. However, double majors in business and international business, economics and financial economics, and economics and quantitative economics are not permitted.

Students who use transfer or transient credit to satisfy course requirements in Westminster’s accounting, business administration, or economics majors must nevertheless complete (with C- or better) at least 20 semester hours of the department’s own courses at the 300 level or above in their major discipline, including the capstone. In the financial economics, international business, and quantitative economics majors, students must complete (with C- or better) at least 20 semester hours of the department’s own courses at the 300 level or above including the capstone. With departmental permission, international business majors may include courses at foreign universities in this total. Quantitative economics majors may include math courses at Westminster College at the 200 level or above in this total. (E.g., an accounting major must complete at least 20 semester hours of ACC courses numbered 300 or higher level at Westminster, including ACC 601.) Advanced topics courses of less than three semester hours, internships, and honors courses do not count toward this total.

MINOR PROGRAMS

The Minor in Accounting: Twenty-four semester hours in accounting, comprising
ACC 201, 202, 305, 306 and two other ACC courses (except Field Experience/Internship).

The Minor in Economics: Twenty-eight semester hours, comprising ECO150, 152, four other ECO courses at the 200 level or higher (except Field Experience/Internship), and one statistics course from the following list: BA/ECO 220, BIO 206, MTH 135, MTH 335, PSY 201, PS 301, SSC 251.

The Minor in Human Resources: Thirty-two semester hours, comprising BA 310, 360, 361, 362, ECO 150, ACC 201, 202, and one statistics course from the following list: BA/ECO 220, BIO 206, MTH 135, MTH 335, PSY 201, PS 301, SSC 251.

The Minor in Marketing: Twenty-eight (or 32) semester hours, comprising ECO 150, ACC 201, 202, BA 305, BA 390 or both PR 101 and 202, BA 410, and one statistics course from the following list: BA/ECO 220, BIO 206, MTH 135, MTH 335, PSY 201, PS 301, SSC 251.

Minors in human resources and marketing are not available to students majoring in business administration or international business (interdisciplinary). The minors in economics and accounting are not available to students majoring in financial economics (interdisciplinary).

Students pursuing a business or accounting major through the Lifelong Learning Program (LLP) should consult the Lifelong Learning Catalog and director for course information.

Education

Professors: Linda P. Domanski, Charlene Klassen Endrizzi, Darwin W. Huey
Associate Professors: Amy H. Camardese, M. Eileen Morelli
Assistant Professor: Alison DuBois, Sararose Lynch
Lecturer: Tina Keller, Diana Reed
Chair: Dr. Camardese

Degree Offered: Bachelor of Arts
Major Program: Early Childhood PreK-4 and Special Education PreK-8
Minor Program: Secondary Education

Department of Education Mission Statement

The mission of the Department of Education at Westminster College is to prepare PreK-4 early childhood/PreK-8 special education and secondary teachers who are distinguished by their subject matter knowledge, interpersonal capacities, pedagogical skills, and professional attitudes.

The Department of Education seeks to create a community of learners in which stimulating and challenging expectations are addressed in a positive, caring, and encouraging environment which is respectful of all individuals. The faculty seeks to model the personal attributes and pedagogical practices which distinguish the teaching profession at its best.
Through study in the Westminster Plan, the Intellectual Perspectives, general course work, and professional education, students are encouraged to build a professional knowledge base. Meaningful classroom experiences, multiple opportunities with children and youth, and partnerships with schools and agencies enable students to make connections between academic work and the field of basic education at all levels.

Competencies are sought in content knowledge, understanding the diversity of all learners, instructional strategies, management, communication, planning, assessment, professionalism, and collaboration.

The nobility and significance of the preparation of professional educators is acknowledged as the demands for service to an ever-changing, diverse, global, and technological world increase.

Upon program completion, candidates will have acquired the knowledge, demonstrated the skills, and assumed the attitudes necessary to begin a teaching career, and the credentials necessary for initial certification.

The departmental outcomes are consistent with the standards, guidelines, and outcomes of the College and the Pennsylvania Department of Education.

**Teacher Preparation**

Westminster is approved by the Department of Education of the Commonwealth of Pennsylvania for the preparation of early childhood/special education, and secondary school teachers. Secondary school teachers are prepared in the following fields: biology, chemistry, social studies, English, mathematics, and physics. All secondary certifications require Pre-service Academic Performance Assessment (PAPA) by Pearson and the Praxis Speciality Area test. French, Latin, music, and Spanish are K-12 certifications. Early childhood/special education, and K-12 certifications require the Pre-service Academic Performance Assessment (PAPA) by Pearson and appropriate Specialty Area tests. Graduates may be certified to teach in other states if they select their courses to meet the requirements for certification which apply in those states. Additional information may be obtained from the Department of Education, or from the Department of Music for the music certification program.

A sequence of learning opportunities and experiences are planned by the faculty to develop personal and professional growth and to meet the requirements for teacher certification. The faculty monitor each student’s progress toward the attainment of program guidelines through course work, personal advising, supervised activities, public school practica, field experiences, and a student teaching assignment.

Students majoring in education become candidates for the B.A. degree. Students minoring in secondary education become candidates for the degree appropriate to their discipline.

Students who successfully complete the teacher education program at Westminster and the Praxis Series/Pearson Examination requirements will be recommended for certification in Pennsylvania. Students who seek certification in other states can
modify their programs accordingly. Generally, the courses leading to Pennsylvania certification are similar to those required by other states.

Special Requirements and Procedures for Teacher Certification Candidates

The School Laws of the Commonwealth of Pennsylvania require that the individual who intends to teach be of good moral character, and possess the personal qualities, the professional knowledge, and the pedagogical skills which parents may expect to find in teachers to whom the education of children is entrusted. Students must be able to meet certification requirements as set forth in the School Laws of Pennsylvania and in the commonwealth-approved programs of teacher education offered by the College.

It is the student’s responsibility to complete and file the following documents and applications: 1) a declaration of major form for early childhood/special education or a declaration of minor form for secondary education to be completed during the sophomore year; (2) an advisement sheet to be completed in the Spring Semester of the sophomore year; (3) an application for student teaching to be completed by Nov. 30 of the junior year; (4) a review of the graduation audit in the Spring Semester of the junior year; (5) an application for state teaching certification during the final semester; 6) current PPD test prior to activities in the public schools; and 7) appropriate legal clearances prior to activities in the public schools. Students are advised to secure all clearances upon entrance to the program. Failure to do so may delay timely completion of courses in sequence.

NOTE: Changes in state requirements take precedence over information printed in this Undergraduate Catalog.

Certification Testing: The commonwealth requires a battery of examinations for teacher certification candidates. For early childhood/special education majors, the Pearson Pre-professional Skills Tests: reading, writing, mathematics, and the Pearson PreK-4 test, and the Special Education PreK-8 test. The PAPA must be passed prior to enrolling in the early childhood education block or the special education block. For secondary education minors, the Pre-professional Skills Tests: reading, writing, and mathematics of the Pearson Series Examination must be passed prior to enrolling in EDU 451 Teaching in the Secondary School. Early childhood/special education majors should complete the appropriate Pearson tests before student teaching. It is strongly suggested that secondary education minors complete the specialty area test before Fall Semester of the senior year. The qualifying scores are established by the Pennsylvania Department of Education. Westminster’s Department of Education provides assistance to prepare students for the Praxis Series Examinations.

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PRAXIS II PASS-RATE DATA
PROGRAM COMPLETERS—2006-2011

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<td>Summary</td>
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<td>Special Education</td>
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### Early Childhood/Special Education

**The Major in Early Childhood/Special Education.** Students who declare an intent to major in early childhood/special education are assigned an adviser in the department and provided opportunities to explore teaching. During the sophomore year, students must complete a declaration of major form.

Students seeking to change their major to early childhood/special education should not assume departmental approval is guaranteed. Admission into this major is based upon a careful review of the following by a departmental screening panel: 1) GPA; 2) personal qualifications; 3) experiences with children/adolescents; 4) PAPA Examination scores; and 5) performance in courses offered by the department; 6) performance in all academic work.

#### REQUIRED EARLY CHILDHOOD PreK-4 EDUCATION COURSES

(31 semester hours)

- ECE 201 Issues and Trends in Early Childhood Education
- ECE 203 Diversity within Family-School-Community Partnerships
- EDU 231 Educational Psychology
- EDU 311 Teaching Science in Schools*
- EDU 562 Early Childhood PreK-4 Education Field Experience II (2 SH)
- ELL 206 English Language Learners
- PED 301 Early Childhood Movement
- PED 302 Adapted Physical Education
- PSY 219 Early Childhood Development
- SED 201 Foundations of Special Education
- SED 572 Special Education PreK-8 Field Experience (2 SH)

*EDU 311 is taken in the junior year opposite either block, all of the other above listed courses are prerequisites to either block. PED 302 may be taken concurrently with either block. The second science course may be taken concurrently with EDU 311 with permission.

#### REQUIRED CERTIFICATION COURSES

(32 semester hours)

- Mathematics six semester hours of college-level math
Life Science one course, BIO 101 recommended
Physical Science one course, PHY 101 recommended
Geography (choice of one) GEO 101 or World History or SOC or PSY or PA History
American History one course
Visual/Performing Arts MUS 185 required
Composition/Literature six semester hours of college-level English composition and literature (Ch 354.23)

PREREQUISITES TO THE EDUCATION BLOCKS ...

FORMAL ADMISSION TO CANDIDACY

Either ECE or SED Block is taken in either the Fall Semester or Spring Semester of the junior year with the subsequent block taken the first semester the following year. Exceeding 64 semester hours and meeting the stated Early Childhood/Special Education Block prerequisites constitutes formal admission to candidacy.

Requirements for entering either block are: 1) a minimum all-college GPA of 3.000; 2) a minimum GPA of 3.000 in ECE 201, ECE 203, EDU 231, EDU 562, ELL 206, PSY 219, SED 201; 3) completion of the Writing, Oral Communications and Inquiry portions of the Liberal Arts Core; 4) completion of the mathematics requirement (six semester hours) with grades of “C” or better; 5) completion of either the life science or the physical science requirement with a “C” or better; 6) passing the Pearson Pre-professional Skills Tests: reading, writing, mathematics; 7) presentation and approval of a portfolio which addresses INTASC standards and includes experiences with children/adolescents; and 8) the recommendation of a departmental screening panel during March of the sophomore year.

Continuance in the program is dependent upon maintaining a cumulative GPA of 3.000 and a GPA of 3.000 in the major. In all cases, only Westminster College courses are factored into the GPA calculation.

Experience indicates that students who have difficulty in attaining the required 3.000 GPA by the end of the sophomore year are also likely to experience difficulty in passing the state certification examinations. Students who have not attained a 3.000 by the time of the sophomore portfolio review or who have not met the Praxis Series Examination requirements will be required to address the departmental screening panel.

EARLY CHILDHOOD PreK-4 BLOCK (18 semester hours)

ECE 321 Math for Preschool Years
ECE 322 Math for Primary Grades
ECE 331 Language Development PreK
ECE 332 Language Development K-4
ECE 341 Emergent Literacy
ECE 342 Literacy in the Primary Classroom
ECE 352 Teaching Social Studies PreK-8
ECE 362 Observation and Assessment PreK-4

The Early Childhood Block also includes a practicum experience course.

SPECIAL EDUCATION BLOCK

The Special Education Block is taken by early childhood PreK-4/special education PreK-8 majors who have an overall minimum GPA of 3.000 and a 3.000 in their major, and who have passed the Pearson PAPA Reading, Writing, Math.

SPECIAL EDUCATION PreK-8 BLOCK (18 semester hours)

SED 402 Behavior Management in Special Education
SED 404 Reading Strategies for Exceptional Children
SED 411 Legal Issues and Assessment in Special Education
SED 412 Assessment Methods in Special Education
SED 413 High Incidence Instructional Strategies in Special Education
SED 414 Low Incidence Instructional Strategies in Special Education
SED 462 Observation and Assessment PreK-8 Special Education

The Special Education Block also includes a practicum experience course. In addition to the Special Education Block, students must also take SED 572, the two semester hours Field Experience, preferably in the junior year of studies.

STUDENT TEACHING—EARLY CHILDHOOD PreK-4 AND SPECIAL EDUCATION PreK-8 (12 semester hours)

Student teaching is typically completed in the Spring semester of the senior year.

ECE 602 Student Teaching and Seminar—Early Childhood PreK-4 (6 semester hours)

SED 602 Student Teaching and Seminar—Special Education PreK-8 (6 semester hours)

OTHER INFORMATION FOR EARLY CHILDHOOD PreK-4 AND SPECIAL EDUCATION PreK-8

Recommended electives include another class in music, art, or theatre, SOC 101, 102, 209 and EDU 203, PSY 101 or 281.

It is also suggested that early childhood/special education majors may also complete a minor in one of the following disciplines:
Art  English  Psychology  
Biology  Foreign Languages  Theatre  
Broadcast Communications  General Science  
Chemistry  History  
Communication Studies  Mathematics  
Computer Science  Music  

The general science minor for early childhood PreK-4 and special education PreK-8 requires four hours each in biology, physics, and chemistry and an additional 12 hours in science.

SUCCESSFUL COMPLETION OF THE PROGRAM INCLUDES:

- Satisfactory completion of the prescribed course work
- Qualifying scores on the appropriate Pearson Series Examinations
- Graduation
- Recommendation for Pennsylvania certification

Secondary Education

The Minor in Secondary Education. Students beginning academic year 2012-2013 who plan to qualify for the secondary school teaching certificate declare a minor in secondary education during their freshman year or upon declaring a major. To this end they should consult with the Department of Education during their first year. For general academic purposes, students remain under the guidance of the department in which they are majoring.

REQUIREMENTS FOR SECONDARY EDUCATION (39 semester hours)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tr>
<td>College level mathematics</td>
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<tr>
<td>English Composition and Literature</td>
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<tr>
<td>SED 201 Foundations of Special Education</td>
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<td>ELL 206 English Language Learners</td>
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<td>EDU 231 Educational Psychology</td>
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<td>EDU 582 Field Experience—Secondary</td>
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<td>SED 572 Field Experience—Special Education</td>
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<td>EDU 351 Reading in the Content Area</td>
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<tr>
<td>EDU 451 Teaching in the Secondary School</td>
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<td>EDU 452 Student Teaching and Seminar—Secondary</td>
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<td>EDU 453 (For students completing two certification areas)</td>
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Recommended elective courses: PSY 101 and 221 or 281

Admission to EDU 451 which is offered in the Fall Semester of the senior year is dependent upon: 1) the recommendation of the student’s major department;
2) passing the Pre-professional Skills Tests: reading, writing, and mathematics of the Pearson Series Examination; 3) a careful review of the student’s personal qualifications; 4) a minimum cumulative GPA of 3.000; 5) minimum GPA of 3.000 in SED 201, EDU 351, 582, ELL 206, and EDU 231 (the secondary education minor); 6) a minimum GPA of 3.000 “in the major” (is determined by the respective academic disciplines) and; 7) the recommendation of a departmental screening panel during the Spring Semester of the junior year.

Continuance in the program is dependent upon maintaining the GPA requirements. Students should complete the specialty area test of the Praxis Series Examination prior to admission to EDU 451 Teaching in Secondary School. Students who have successfully completed EDU 451 and EDU 452 (student teaching) and the Praxis requirements, and have the recommendation of their major department and the Department of Education will be recommended for certification to teach in Pennsylvania upon graduation.

**Student Teaching**

All programs leading to certification culminate in student teaching. During this experience, students apply and expand upon the competencies developed through formal courses and experiences with children/adolescents. Both the teaching and non-teaching responsibilities of teachers are components of the experience. All student teaching experiences must be done under the supervision of Westminster College faculty. Student teaching assignments are made in schools with which the College has established cooperative working relationships. The assignments are made without special consideration to the place of permanent residence. Generally, students are not assigned to student teach in their home district. The department reserves exclusive rights in student teacher placement. Students are responsible for their own transportation to the student teaching site.

An application for student teaching is to be filed with the Department of Education by Nov. 30 of the junior year.

**English and Public Relations**
Professors: Deborah C. Mitchell, Richard L. Sprow, David G. Swerdlow
Associate Professors: Andrew W. Ade*, Bethany F. Hicok, Suzanne G. Prestien, Ross A. Wastvedt
Assistant Professors: Brittany A. Rowe-Cernevicius, Kristianne Kalata Vaccaro
Lecturers: Evann Galbreath Garrison, Delores A. Natale
Chair: Dr. Swerdlow

Degree Offered: Bachelor of Arts
Major Programs: English, Public Relations
Minor Programs: English, Film Studies, Public Relations, Writing
Teacher Certification: English

English

The English major at Westminster College promotes the development of rational and creative abilities through the study of literary texts within the liberal arts curriculum. Majors advance through a course sequence which emphasizes the seminar format and culminates in independent study. This sequence is complemented by the major’s participation over four years in colloquia, field experience, and portfolio building.

The English major sets the following goals for its students:

1. to develop increasing sophistication with writing, speaking, and problem-solving;
2. to develop theories of reading and writing;
3. to develop the ability to research thoroughly, carefully, and thoughtfully;
4. to demonstrate increasing independence in their thinking through their abilities to research, write, and speak;
5. to develop an increasing knowledge and understanding of historical, theoretical, and cultural contexts of literature, with a strong emphasis on the connections between their discipline and other liberal arts disciplines;
6. to promote global awareness and cultural diversity;
7. to demonstrate a growing confidence with contradictions, complexities, and ambiguities;
8. and to become knowledgeable about the concepts and contexts of their discipline.

The methods for reaching these goals include a series of individually designed courses which are carefully sequenced and which focus on the development of skills throughout the major’s college experience. Each year a detailed list of specific titles and topics is published by the department to aid its majors in schedule preparation. These lists are available on request at the English office in Thompson-Clark Hall. The descriptions which follow give the essential emphases of each series of courses, along with their prerequisites.

The English major is designed to allow sufficient choices of courses while guiding the student through a well-planned, developmental program. Each set of courses after the required introductory courses (ENG 240 and ENG 250) has prerequisites.

*On Sabbatical during Fall 2012
The Major in English: All English majors must complete 40 semester hours, as follows:

1 ENG 240 (Seminar: Introduction to Literary Studies and Critical Theory, Part I)
1 ENG 250 (Seminar: Introduction to Literary Studies and Critical Theory, Part II)
2 ENG 300s (Studies in Context)
2 ENG 400s (Seminars)
1 Additional ENG 300/400-level course
1 ENG 590 (Internship) 4 semester hours required (equivalent to 160 hours on the job)
*Secondary Education minors who complete student teaching may take either 4 semester hours of ENG 590 or an additional English 300/400.
1 ENG 601 (English capstone: Advanced Study I)
1 ENG 602 (English capstone: Advanced Study II)

All-College Honors: If successfully completed, the All-College Honors Research Project will replace the capstone requirement for students majoring in English. However, All-College Honors scholars must attend capstone courses.

English majors and minors must earn at least a C- in all courses required in any of the major/minor programs and must have a 2.000 average in all courses in a program.

Secondary Education Teacher Certification: To be eligible for certification in English, students must successfully complete all requirements for the English major as set out above; ENG/EDU 220 (Teaching of Literature and Grammar in Secondary Schools); participation on the staff of Holcad, Argo, or Scrawl; the requirements for graduation listed on p. 55 and the minor in secondary education. Requirements for the minor are listed under the Department of Education, p. 103.

NOTE: Student teaching does not fulfill the ENG 590 (internship) requirement.

The prerequisites for admission to the Senior Block are a cumulative GPA of 3.000 in all college course work and 3.000 in the major. “In the major” is defined as all courses required for the major, including those offered by other disciplines.

Students who are interested in secondary education should contact the chair of the Department of Education as soon as possible for complete information. If all requirements are to be completed in four years, careful planning in both the major field and in the minor is essential.

The Minor in English: A minor in English requires 24 semester hours, with the same set of prerequisites as the English major:

1 ENG 240 1 ENG elective (100, 300, 400)
1 ENG 250 1 ENG 400
2 ENG 300s

English majors and minors must earn at least a C- in all courses required in any of the major/minor programs and must have a 2.000 average in all courses in a program.

Complete information about the above-mentioned programs and courses may be
obtained from any member of the English department. A packet of materials about
the program is available on request at the English office in Thompson-Clark Hall.

**The Minor in Writing:** A minor in writing requires 24 semester hours.

Minors are required to have at least eight, but no more than 16 hours from the
following courses: WRI 251, 253, 254, 255, 256, 257, 258, 401 (2 SH), and 402
(2 SH).

Hours to complete the minor may be earned from taking BC 111, PR 401, WRI
201, WRI 202, and WRI 252. (NOTE: PR majors and minors may not count WRI
201 or WRI 202 toward the writing minor.)

**The Minor in Film Studies:** A minor in film studies requires 24 semester hours.

Students must complete FS 101, FS 102, one 300-level FS Selected Topics course,
the Film Studies Practicum, plus any two other film studies electives. Students
may opt to take a maximum of two Selected Topics courses, as long as they are
different in content.

**Public Relations**

The mission of the public relations program is to prepare future public relations
practitioners to identify problems, research possible solutions, prepare clear
responses, persuade management to implement effective plans, and devise suitable
evaluative tools through the study of public relations history, theory, and practice
and through practical classroom and field experiences. These skills should allow
the students to make the fullest use of their liberal arts education. Ancillary to
this mission is the development of personal skills including self-awareness, self-
confidence, group leadership, social responsibility, discipline, and tenacity.

In keeping with the movement toward student-centered, independent study
curricula, the program includes two two-semester-hour experiential studies courses
in the senior year. The goal is to give seniors hands-on experience by working
with on-campus groups, organizations, departments, and individuals as well as
off-campus businesses in the immediate community.

Field experience will be off campus, with a graded internship required after students
complete the junior sequence. Because of the importance of the internship in
the public relations field, students must have taken the following courses before
applying for the internship: PR 101, 202, 203, 401, 402 and WRI 201.

**The Major in Public Relations:** Public relations majors must complete 40 semester
hours, as follows: PR 101, 202, 203, 401, 402, 501, 590, 601, WRI 201 and one
elective (WRI 202 or a 300-level selected topics course).

In addition, majors are strongly encouraged to take courses outside the major
which support the Liberal Studies program. Lists of these courses will be supplied
to all majors.
The Minor in Public Relations: A minor in public relations requires 24 semester hours, as follows: PR 101, 202, 203, 401, 402; WRI 201.

Environmental Science

This program, sponsored by the departments of biology, chemistry, mathematics and computer science, and physics, is composed of designated and elective courses from those disciplines, and environmental science. The purpose of the program is to provide the broad background and understanding necessary for effective work on problems of the environment and for careers in environmental science. Program coordinator, Dr. Helen Boylan.

Requirements: The environmental science major requires 64 semester hours, which includes 20 hours labeled ES; 12 hours in biology; eight hours in chemistry; eight hours in physics; four hours of statistics (MTH or BIO); and 12 hours of electives.

BIO 201, 202, 203; CHE 117 and either CHE 180 or 261; MTH 135 or BIO 206; PHY 141 & 142, or PHY 151 & 152; ES 160, 230, 360, 601; and four semester hours in a course numbered 590, 620, or 660. In addition, 12 semester hours of electives are required. A grade of C- or better is required in all courses in the major.

Approved Electives: BIO 301, 361, 363, 461, 463, 464, 520/521; CHE 261 or 180, CHE 262, 340, 375, 380; PHY 221; ES 250, 465, 624, 664; GEL 121; MTH 150, 152.

Additional travel courses may also be approved for elective ES credit, but only one travel course may count toward the ES major.

Westminster participates in a cooperative program with Duquesne University where students may be eligible to enter the two-year Duquesne program leading to the master of science degree in environmental science and management after three years of undergraduate study at Westminster. Please contact Dr. Helen Boylan, chair, Environmental Science Committee, for details.

Environmental Studies
(minor program only)

The environmental studies minor focuses on the interface between humans and their environment. Environmental issues are typically complex and multi-faceted, requiring an understanding of the natural sciences, social sciences, arts, and humanities — thereby emphasizing a true liberal arts education. This minor offers students an approach to studying one of the most important issues of our time by emphasizing the inherently multidisciplinary nature of environmental issues. Program coordinator, Dr. Helen Boylan.
Requirements: Students must complete the two required core courses (ENV 101 and ENV 401) along with four electives. ENV 101 and at least one Group I elective must be successfully completed before enrolling in ENV 401. No grade lower than a C- may be used to satisfy the minor requirements. Students must finish 24 semester hours for successful completion of the minor.

**CORE COURSES**

- ENV 101  Environmental Literacy
- ENV 401  Environmental Studies Seminar

**ELECTIVES** (4, with at least 2 from Group I):

- **Group I**
  - ECO 270  Environmental & Nat. Res. Economics
  - ES 160  Concepts in Environmental Science
  - PS 242  Environmental Policy & Politics

- **Group II**
  - ART 105  Art and Nature
  - BIO 105  Pattern and Process in the Natural World
  - BIO 361  Biological Diversity
  - BIO 360 / ES 360  Ecology
  - CHE 375  Green Chemistry
  - ENG 131  Nature Writing
  - PHI 230  Environmental Ethics

**Financial Economics**

This program, sponsored by the Department of Economics and Business, includes courses from accounting, business, and economics. Financial economics provides an economic background for financial decision making, forecasting, and modeling. It prepares students for graduate work in business or economics, and for careers in the financial services industry. Program coordinator, Dr. Dan Fischmar.

**Requirements:** The major comprises 64 semester hours consisting of the following courses: ACC 201, 202, 305, 306; BA/Eco 220, BA350, BA380; ECO 150, 152, 310, 320, 340, 365, 385, 601; MTH 131 or equivalent. Students must earn a GPA of at least 2.000 in these courses with no grade lower than C-.

**Gender Studies**

(minor program only)

The gender studies minor is a multi-disciplinary academic program focusing
on gender. Approved courses from communications, English, history, modern languages, music, psychology, religion, science, and sociology are available at this time. Other disciplines may submit courses for approval in the future. In these courses, students might look at how women and men view some of the same things differently, how women are doing in the labor market, communication differences that exist between women and men, how women’s participation has changed in politics, why we still have so few women in office, or what a feminist interpretation of religion might be.

Gender studies courses fulfill personal and practical needs for both women and men interested in broadening their understanding of gender in society. Students who have specific career plans in medicine, social work, education, business, counseling, law or therapy should know that studies of similar programs have found that the increased understanding of gender enhances such professional activities. Other findings from the evaluation of such programs report that the confidence and insight that students acquire in these courses enriches their personal and business lives regardless of their particular career. Program coordinator, Dr. Ann Murphy Dammron.

Requirements: 24 semester hours including SOC 107 and five electives from courses designated as gender studies courses are also required. Seventeen courses are presently approved with more being added on a continuing basis. These courses are often cross-listed as GS courses, indicated as follows. Other courses may be taken for gender studies credit with the approval of the coordinator of the program.

CLC 101/GS 101 Numbers/Narratives
CLC 141/GS 141 Images of Women
COM 201/GS 201 Interpersonal Communication
ENG 123/GS 123 Gay Literature
ENG 307/GS 307 The Family
ENG 312/GS 312 Women Writers
ENG 405/GS 405 Feminism
HIS 129/GS 129 History of Women in Modern Europe
HIS 305/GS 307 Marriage, Family and Sexuality in History
IC 102/GS 102 Reading the World
IC 105/ GS 105 A Survey of Italian Film
MUS 143 Women in Music
PSY 331/GS 331 Psychology of Women
SCI 294 Women in Science
SOC 107/GS 107 Sociology of Gender
SOC 215/GS 215 Women in Cross-Cultural Perspective
SOC 241/GS 241 Sociology of Violence and Nonviolence
SOC 306/GS 306 Gender & Family
SOC 307/GS 310 Sociology of Sport

These courses share an emphasis on gender and an exploration of gender issues in that discipline. They are open to all students. Some of the courses may have prerequisites which are listed with their descriptions.

International Business

This program, sponsored by the Department of Economics and Business and the
Department of Modern Languages, is composed of designated courses from the following disciplines: business, modern languages, economics, mathematics, political science, and international cultures/religions. The purpose of the program is to provide students with a background in the international aspects of business and economics and the opportunity to develop a proficiency in a second language, with special emphasis on the idiom of management, marketing and finance.

Requirements: Forty-eight semester hours in accounting, business, and economics, comprising ACC 201 and 202, ECO 150, 152, and 365, BA 140, 220, 305, 310, 350, 410, 602 (or 601 with permission); 12 hours of supporting courses, comprising MTH 131 or equivalent, PS 104 or 431, one international cultures course (IC 101 or 102; REL 111, 116, 117, 118, 216, SOC 105); at least commercial level competency in a foreign language; and a one-semester international “Work/Study Abroad” experience arranged through Westminster College. To be eligible for off campus study, students must have an all-college GPA of at least 2.500. During the one-semester abroad experience, the courses taken or the work experience must focus on acquiring knowledge and skills in business or economics. Generally, the location of the experience should promote increased foreign language proficiency. Students must earn a grade of C- or better in all required courses and at least a 2.000 GPA.

International Studies

The Major in International Studies: This program consists of a designated core of courses taken by all majors and three concentrations of designated and elective courses. INST majors select one concentration in either International Politics, Global Development or Cultural Studies. The purpose of the program is to prepare students for careers and graduate study in an increasingly globally-integrated world. Students should consult with the faculty advisor, listed below, for the concentration and emphasis that they select. All students in the major participate in an approved study abroad or off-campus study program for at least 10 weeks. Program coordinator, Dr. Michael Aleprete.

Required core courses for all concentrations: The core consists of 24 semester hours of FR or SPA 202, 301 and 302; ECO 152, PS 104 and one of the following: GEO 101, HIS 102, REL 111 or SOC 105.

Students select one of the following concentrations:

International Politics Concentration: Sixty semester hours from six core courses and nine concentration courses. Faculty adviser, Dr. Michael Aleprete.

PS 101 Introduction to Political Science AND four of the following PS electives, with no more than one at the 100 level: PS 102, 103, 204 (taken four times for 4 SH), 222, 231, 232, 233, 235, 236, 254, 255, 331, 332, 342, 431

General concentration electives: Two courses from among the following courses: ECO 350, ECO 365; HIS 246, HIS 249, HIS 252, HIS 261, HIS 262, HIS 272, HIS 282, HIS 303, HIS 308, HIS 311; REL 116, REL 117, REL 118,
REL 211, REL 216; SOC 105, SOC 215, SOC 304

A semester of **study abroad** or an approved off-campus study program

EITHER “a” **OR** “b”:

a) SSC 251 or SSC 252 and FR/SPA 601

b) PS 301 and PS 601

**Global Development Concentration:** Sixty semester hours from six core courses plus nine concentration courses. The student chooses an emphasis in history or sociology within this concentration. History emphasis faculty adviser, Dr. Patricia Clark. Sociology emphasis faculty adviser, Dr. Kristin Park.

**Courses from “a” or “b” below (depending on chosen emphasis):**

a) Required courses for **sociology** emphasis: SSC 251 or 252; SOC 350, 601, 602

b) Required courses for **history** emphasis: HIS 410, 420, 594, 601

**Additional required courses for either emphasis:**

- ECO 350
- A total of three global development concentration electives to include:
  
  One of the following **sociology** courses not already completed as a core requirement: SOC 105, 215, 304, 594 (with international content)
  
  One of the following **history** courses: HIS 246, 249, 252, 261, 262, 272, 282, 303 308, 311
  
  One of the following **political science** courses: PS 232, 233, 235, 236, 254, 255, 331, 332, 342, 431
  
  One additional **international studies** elective numbered 200 or above

All students in the concentration must take a semester of **study abroad** or an approved off-campus study program.

**Cultural Studies Concentration:** Sixty semester hours from six core courses and nine concentration courses. The student chooses an emphasis in history or modern languages. History emphasis faculty adviser, Dr. Patricia Clark. Modern languages emphasis faculty adviser, Dr. Ann Murphy Dammron.

**Courses from “a” OR “b” below (depending on chosen emphasis):**

a) **History** emphasis: HIS 410, 420, 594 (with international focus), 601 AND two courses in HIS chosen from the following list, at least one at the 300 level: HIS 240 241, 242, 243, 245, 246, 249, 251, 252, 253, 261, 262, 271, 272, 281, 282, 305, 307, 308, 311, 312

b) **Modern languages** emphasis: IC 102, FR or SPA 594, FR or SPA 601 AND 3 courses in FR or SPA above the 302 level

**Additional required courses for either emphasis:**

- Eight semester hours from ONE of the following disciplines/options:
• Westminster College Undergraduate Catalog 2012-2013

   CLC 1XX Studies in World Literature and Culture
   MUS 101, 102
   REL 111, 116, 117, 118, 122

   Or substitute eight semester hours from one additional discipline in
   the humanities, with included courses approved by the International
   Studies Committee.

• One elective from additional courses approved by the International Studies
  Committee

• All students in the concentration must take a semester of study abroad
  or an approved off-campus program

The Minor in International Studies: The minor in international studies consists
of 24 semester hours. It is intended to serve students whose major coursework does
not allow room for a double major in international studies but whose interests,
and proposed careers or graduate study, include an international component. An
approved travel course is strongly recommended to fulfill minor requirements.

Required courses: FR or SPA 202, ECO 152, PS 104 AND one of the following
courses: GEO 101, HIS 102, REL 111 or SOC 105

   AND

   Two additional upper-level electives from the same discipline and from courses
   approved by the International Studies Committee

Mathematics and Computer Science
Degree Offered: Bachelor of Science

Major Programs: Mathematics, Computer Information Systems, Computer Science

Minor Programs: Mathematics, Information Systems, Computer Science

Teacher Certification: Mathematics

The objectives of the Department of Mathematics and Computer Science are to provide a program that enables the student to acquire the knowledge and skills in mathematics and/or computer science necessary for a chosen field, to develop an appreciation of the integration of each into our society, and to generate a mode of analytical thinking that can be extended to all areas of human thought and exploration.

The department also prepares students in the natural and social sciences to use the computing and mathematical tools appropriate to their fields. (For information on pre-professional programs, see p. 78.)

Westminster offers its students the opportunity to work with a wide range of computer hardware and software. The College also supports a campus-wide network that extends to all buildings and residence halls on campus, with full Internet access for all stations. In addition to the campus-wide computer labs, the Department of Mathematics and Computer Science has a lab with 21 workstations running Microsoft Windows and a student-managed UNIX lab with nine Linux systems plus several servers.

Internship/Field Experience: A student may wish to arrange an off-campus experience with a business, industry, service agency, high school, governmental office, or another appropriate organization. The course credit for an internship depends on the length and the actual learning situation. Students work with the academic adviser to determine the credit. Many of the supervising organizations pay a salary, although this is not necessary. We believe that this is a valuable learning experience for an individual during the junior or senior year.

Interdisciplinary Programs: The environmental science program is offered through the departments of mathematics and computer science, biology, chemistry, and physics (see p. 108). The quantitative economics program is offered through the departments of mathematics and computer science and economics and business (see p. 147).

Graduation Requirements: In addition to the graduation requirements found on p. 55, a major must attain a C- or higher in support courses. Also, all prerequisite

*On Sabbatical during Spring 2013
courses must be completed with a grade of C- or higher before subsequent courses can be taken. In addition to the above, the minor in secondary education must comply with the certification requirements listed below.

**Transient Credit Policy:** Students who use transient credit (that is, transfer credit from another college or university) to satisfy course requirements in Westminster’s mathematics major or mathematics minor may NOT get transient credit for more than four semester hours of mathematics courses that are 200 level or above with the exception of courses equivalent to Westminster’s MTH 250 (Calculus III), MTH 253 (Differential Equations) or MTH 241 (Discrete Mathematics).

Students who are computer science majors or minors or computer information systems majors or information systems minors may NOT get transient credit for more than four semester hours of computer science/computer information systems courses outside of Westminster College that are 200 level or above.

These restrictions hold for any external course whether it is a traditional classroom style or online.

**All-College Honors:** The All-College Honors Research Project will replace the capstone requirement for students majoring in mathematics, computer science or computer information systems, if successfully completed. Students do not need to register for both Honors Research and the capstone course in the department.

**Mathematics**

The mathematics program at Westminster offers the opportunity for students to acquire mathematical knowledge and develop thought processes that are fundamental to their liberal arts education. Students who complete the program successfully are prepared for a variety of careers in business, industry, and education as well as graduate work.

**The Major in Mathematics (44 semester hours):** MTH 152, 241, 250, 261, 361, 451, 601, plus EITHER 150 and at least 12 semester hours of mathematics courses numbered 300 or higher OR at least 16 semester hours of mathematics courses numbered 253 or higher. MTH 431 cannot be used for either the mathematics major or minor. Required supporting courses include CS 151 and one of the following: CS 152; OR ECO 385 and BA 330; OR PHY 151 and 152. **NOTE:** ECO 601 may be substituted for BA 330.

**Secondary Education Teacher Certification:** To be eligible for certification in mathematics, in addition to the courses listed above, students must successfully complete MTH 331 College Geometry AND MTH 302 Probability AND MTH 335 Statistics as eight credits of the 12 semester hours numbered 300 or higher, and MTH 431 (EDU 431) Teaching Mathematics in the Secondary School, the requirements for graduation listed on p. 55, and six semester hours of computer science, and the minor in secondary education. Requirements for the minor are listed under the Department of Education.

The prerequisites for admission to Senior Block are a cumulative GPA of 3.000 in all college course work and 3.000 in the major. “In the major” is defined as all
mathematics courses taken.

Students who are interested in secondary education should contact the chair of the Department of Education as soon as possible for complete information. If all the requirements are to be completed in four years, careful planning in both the major field and in the minor is essential.

The Minor in Mathematics: 24 semester hours in mathematics courses numbered 150 and above. The courses must include MTH 152, 241, 250, 253 OR 261, and at least four semester hours of mathematics courses numbered 300 or higher.

Computer Science

The Department of Mathematics and Computer Science offers programs which provide a broad background in computing knowledge and skills, as well as practical experience. Majors are offered in computer science and computer information systems and minors are offered in computer science and information systems. These programs prepare students for advanced study in graduate school and a variety of careers in computer science and data processing. Students are hired on a competitive basis to serve as lab assistants and lab coordinators.

The Major in Computer Science—Required Courses (64 semester hours): CS 151, 152, 251, 311, 321, 331, 411, 421, 601, 602; and three electives selected from 300 and 400-level CS courses and MTH 321; also required are MTH 150, 152, 241. Students must also take one of the following courses: PHY 151, PHY 152, BIO 201, BIO 202, BIO 203, CHE 117, CHE 180.

The Major in Computer Information Systems—Required Courses (60 semester hours): CS 151, 152, 221, 251, 310, 321, 351, 601, 602; and at least two electives selected from any 300 or 400-level CS course. One of these electives may be selected from the following: CS 252 or CS 271. Also required are MTH 150 or 131, MTH 241, ACC 201, ACC 202 or MTH 135, and ECO 150.

The Minor in Computer Science—Required Courses (28 semester hours): CS 151, 152, 251; plus three of any 300 or 400-level CS course including MTH 321; also required is MTH 241.

The Minor in Information Systems—Required Courses (24 semester hours): CS 102, 103, 104, 221, 310 and four semester hours of electives (CS 151, 152, 202, 251, 271, any 300 or 400-level CS course).

Modern Languages
Professor: Camila Bari de Lopez (Spanish), Jesse T. Mann (French)
Associate Professors: Jeffrey T. Bersett (Spanish), Ann L. Murphy (French, Spanish),
                   Joel T. Postema (Spanish)
Lecturer: Regine C. Ananou (Spanish), Brenda Swart (Spanish),
          Milagros Z. Swerdlow (Spanish)
Visiting Assistant Professor: Leslie A. Kealhofer (French)
Chair: Dr. Bersett

Degree Offered: Bachelor of Arts
Major Programs: French, Spanish
Interdisciplinary Major Programs: International Business, International Studies
Minor Programs: Cultural Studies, French, Spanish
Teacher Certification: French, Spanish

In all its courses the department aims to develop in students a greater intellectual flexibility through linguistic and cultural diversity. The courses taught in the various languages have these additional goals: to increase students’ ability to understand, speak, read, and write a foreign language; to help them better understand the structure of language; and to enable them to use a foreign language for professional and business needs, as well as for travel and personal satisfaction. The advanced courses in the various languages will examine literary works, explore film, synthesize historical knowledge, and acquaint students with the arts of the respective cultures. By the time they graduate, majors will have read novels, poems, plays, and essays in the original language and will be expected to write critically about these texts.

The department encourages its majors to begin their professional careers while still at Westminster by doing internships that can be arranged regionally, nationally, or abroad. Because the department recognizes that an international study experience is a desirable component of a student’s college career, it requires such an experience in all its major programs, and helps all its majors choose a specific international study program that meets their needs.

In keeping with the department’s belief that intensive study of a foreign language is the best means for exposing students to the culture of another people, most of the courses offered by the departmental faculty are taught in the original languages. However, because some aspects of a foreign culture can be studied and appreciated without a knowledge of the related language(s), the department offers some courses taught in English dealing with aspects of the cultures represented by the various languages. The courses described under the specific language headings (French and Spanish) are all taught in the original languages. Most of the courses taught in English carry the label “Comparative Literature and Culture” (CLC).

Students who continue a language they have studied in high school will normally enter a course numbered 101 if they have had one year or less of the language in high school, a course numbered 102 or 201 if they have had two years of the language in high school, a course numbered 201 if they have had three years of the language in high school, and a course numbered 202 or higher if they have
had four or more years of the language in high school. Students continuing in the program in any language are expected to take courses in an order of increasing difficulty. No credit will be granted for courses taken at a lower level once a student has passed onto a higher level.

**Requirements for the Majors and Minors:** The requirements for the major and minor programs in cultural studies, French, and Spanish are described below, under their respective headings.

**Interdisciplinary Major Programs:** The inherent interdisciplinary nature of language is expressed at Westminster via interdisciplinary major programs in intercultural studies – sociology and modern languages; international business; and international politics.

**Secondary Education Teacher Certification:** The specific requirements for secondary education teacher certification in French and Spanish are described below, under each disciplinary heading. Students who desire such certification in any language must also complete all the requirements for the minor in secondary education (see p. 103).

Students who are interested in secondary education should contact the chair of the Department of Education as soon as possible for complete information. If all requirements are to be completed in four years, careful planning both in the major field and in the secondary education minor is essential.

**Intellectual Perspectives:** Courses in French and Spanish that may be used to fulfill the one course requirement in this perspective are those numbered 201, 202, and 301 in French and Spanish, and 201 in German (see specific descriptions under each disciplinary heading below). Many (but not all) of the courses labeled Comparative Literature and Culture and Intercultural Communications may be used to fulfill the Intellectual Perspectives in Humanity and Culture or Social Thought and Tradition. Students should check carefully the specific course listings for each semester to determine which courses may be used to satisfy the requirement in these perspectives.

**Cultural Studies (minor only)**

This minor program enables students to study various topics in language and culture in a way that is different from any of the traditional language minors described below. More attention is given to cultural theory than in any of the traditional minors. Students may not minor in cultural studies while pursuing a major or minor in modern languages.

**Requirements for the Minor:** A minor in cultural studies requires a minimum of 24 semester hours, consisting of four courses in the same language (French or Spanish) chosen from those numbered 201, 202, 301, 302, 303, 351, or 352; plus two courses chosen from the following: IC 101, 102, or Language 601.

**French**
Requirements for the Major: A major in French requires a minimum of 36 semester hours and a maximum of 48 semester hours in French courses numbered 201 and higher, including 351, 601, and two advanced French courses, to be selected from those numbered 401-499. Courses numbered 590 may not be counted towards the minimum of 36 semester hours. Majors are required to participate for at least ten (10) weeks in an approved international study program in a French-speaking country. Of the two courses required in the 401-499 range, at least one must be taken after returning from the international study experience. A required supporting course is IC 102.

Requirements for the Minor: A minor in French requires a minimum of 24 semester hours in French courses numbered 201 and higher. Courses numbered 590 may not be counted towards the minimum of 24 semester hours.

Requirements for Secondary Education Teacher Certification: If secondary education teacher certification in French is desired, the major must include the following courses: FR 301, 302, 351, 561, and 601. A required supporting course is IC 101 or 102. Students must also complete all the requirements for a minor in secondary education (see p. 103).

Spanish

Requirements for the Major: A major in Spanish requires a minimum of 36 semester hours and a maximum of 48 semester hours in Spanish courses numbered 201 and higher, including 351 or 352, 601, and two advanced Spanish courses, to be selected from those numbered 401-499. Courses numbered 590 may not be counted towards the minimum of 36 semester hours. Majors are required to participate for at least ten (10) weeks in an approved international study program in a Spanish-speaking country. Of the two courses required in the 401-499 range, at least one must be taken after returning from the international study experience. A required supporting course is IC 102.

Requirements for the Minor: A minor in Spanish requires a minimum of 24 semester hours in Spanish courses numbered 201 and higher. Courses numbered 590 may not be counted towards the minimum of 24 semester hours.

Requirements for Secondary Education Teacher Certification. If secondary education teacher certification in Spanish is desired, the major must include the following courses: SPA 301, 302, 351 or 352, 561, and 601. A required supporting course is IC 101 or 102. Students must also complete all the requirements for a minor in secondary education (see p. 103).

Comparative Literature and Culture

The courses taught under this heading all deal with various aspects of representative world cultures. Although some focus on a specific culture, many are cross-cultural. All the readings and instruction are in English. Specific courses that will be offered in a given semester will be described in both print and electronic formats during the weeks preceding each registration period.
Language

Courses taught under this heading deal either in a broad way with the nature of language (including such topics as translation, artificial intelligence, sign language, syntax, semantics, etc.), or with a specific language not regularly taught in the curriculum.

Music

Professor: Grover A. Pitman
Associate Professors: Anne H. Bentz, Nancy J. DeSalvo, R. Tad Greig, Robin Anna-Karin Lind
Assistant Professors: Daniel E.H. Perttu, Melinda H.C. Perttu
Visiting Assistant Professor: Jason T. Howard
Chair: Dr. Greig

Degrees Offered: Bachelor of Music (B.M.); Bachelor of Arts (B.A.)
Major Programs: (B.M.) Music Education, Performance, Sacred Music
(B.A.) Music
(B.A. or B.S.) Music as a Second Major
Minor Programs: (B.A. or B.S.) Music
Teacher Certification: Music K-12
Normal Length of Time Required for a Degree: 4 years (8 semesters)

Departmental Mission. The Department of Music seeks to provide professional training to talented students who pursue careers as performers, teachers, church musicians, and scholars, and to offer experiences in music to all persons of the College and community, thereby enriching cultural backgrounds and developing musical skills.

Departmental Goals. The Department of Music thus realizes its mission in men and women who as music majors:

• Develop intellectual curiosity about, and the ability to evaluate, the meaning of music and its role in mankind’s search for aesthetic communication and human understanding;
• Strive to become sensitive, well-rounded musicians, through the development of technical proficiency and corresponding creative ability in their primary area(s) of musical performance;
• Develop basic and advanced musicianship skills, and acquire a broad knowledge of historical musical styles;
• Commit themselves to a lifetime of increasing musical awareness and appreciation in their own lives and in their respective communities.

Departmental Objectives. Students who major in music will demonstrate achievement in the field of music by:

• Demonstrating individual technical proficiency and musical sensitivity, as
well as group performance skills, through the performing of solo, small ensemble, and large ensemble music, in their primary areas of performance;

- Successfully completing courses in music theory which develop basic musicianship skills and which study the constructs and compositional techniques of music and its evolution through time;

- Successfully completing courses in music history and literature in which they acquire an in-depth understanding of music and its societal relationships from the earliest recorded time through the present;

- Successfully completing courses in music pedagogy (music education, techniques, methods) and demonstrating the skills obtained in these courses through conducting and performing in colloquium, lab, master classes, student teaching, and other teaching situations.

Westminster College is an accredited institutional member of the National Association of Schools of Music. Lessons, ensembles and courses are available to all students in the College. Music majors and minors are referred to *The Music Handbook*, online at www.westminster.edu/acad/musi, which lists specific additional rules and regulations of the department.

Prospective music majors must fulfill the general admission requirements of the College. They are also required to arrange an audition with the Department of Music to demonstrate proficiency in at least one area of performance. A tape recording is acceptable in lieu of an audition on campus.

**Degrees**

The **BACHELOR OF MUSIC** degree is offered with majors in (1) **Music Education**, (2) **Performance**, and (3) **Sacred Music**. The music education major fulfills certification requirements for those preparing to teach music in the public schools (K-12). The performance major is designed for students planning to continue specialized study in preparation for careers as professional performers. The sacred music major develops the interests of those who wish to be ministers of music or church musicians or directors. The student pursuing a major in music education, performance, or sacred music must complete 95 semester hours’ credit in music plus 36 semester hours’ credit outside of music, including the all-college requirements for graduation.

The **BACHELOR OF ARTS** degree with a single or first major in **Music** has been constructed primarily for students who have a strong interest in music and who likewise desire a broad liberal arts education. The student pursuing this major must complete 48 semester hours’ credit in music plus 80 semester hours’ credit outside of music, including the all-college requirements for graduation.

A student under the **BACHELOR OF ARTS** or the **BACHELOR OF SCIENCE** degree can pursue **Music** as a second major, or as a minor. Both are available to those students who have a strong interest in music but who choose another discipline as their primary major.

To receive a second major in music, the student must complete 36 semester hours’ credit in music. To receive a minor in music, the student must complete 24 semester
Programs for Majors

BACHELOR OF MUSIC—The Major in MUSIC EDUCATION

The curriculum prescribes the following courses (98 semester hours):

- **Theory (20 SH)**
  - MUS 121, 121L, 122, 122L, 123, 123L, 124, 124L, 126
- **History (8 SH)**
  - MUS 141, 142
- **Conducting (3 SH)**
  - MUS 271, 272, 273
- **Pedagogy (7 SH)**
  - MUS 200, 201, 202, 203, 204, 205, 206
- **Professional Education (35 SH)**
  - EDU 231, MUS 182, 183, 184, 195, 196
  - ELL 206, SED 201
- **Private Lessons (7 SH)**
  - 7 semesters’ private study in primary instrument or voice
- **Large Ensembles (7 SH)**
  - 7 separate semesters’ participation in a Large Ensemble
- **Secondary Ensemble**
  - 2 semester hours of an ensemble that is not listed as a Large Ensemble (ex. MUS 402-407, 411-417, 422, 442)
- **Music Electives (3 SH)**
  - 3 one-hour electives in music from group of MUS 207, 208, 209, 211, 212, 213, 367, 379
  - Voice concentration must take a minimum of two of the three: MUS 207, 208 or 209.
  - Instrumental concentration must take a minimum of two of the four: MUS 212, 213, 367 or 379.
- **Music Literature (4 SH)**
  - 1 four-hour elective in music from group of MUS 164, 167 or 168
- **Capstone Recital (4 SH)**
  - MUS 601: Capstone recital (or MUS 602 Capstone Lecture Recital) concurrent with seventh semester of private study of primary instrument or voice

*Students must take six semester hours of college math. Possible courses include: MTH 110 (Mathematical Perspectives) as the Quantitative Reasoning Intellectual Perspective course, and MTH 124 (Mathematical Perspectives II). All education students must take cluster including Foundations of Special Education and Education Psychology.

**There are no private music lesson fees for prescribed lessons. However, students will be assessed private music lesson fees for any additional private lessons.

Each student is required to pass a series of examinations on his/her primary hours’ credit in music.
instrument, as follows:

7 Juries
performance and portfolio review during first semester of sophomore year; review of graduation audit (3.00 GPA is required to student teach)

1 Sophomore Hearing
continuation in the program is dependent upon maintaining a cumulative GPA of 3.00. In all cases, only Westminster College courses are factored into the GPA calculation.

Experience indicates that students who have difficulty in attaining the required 3.00 GPA by the end of the sophomore year are also likely to experience difficulty in passing the state certification examinations. Students who have not attained a 3.00 by the time of the sophomore hearing/portfolio review or who have not passed the Praxis Series Examinations will be required to address the music faculty.

1 Recital Hearing
two weeks prior to the capstone recital or capstone lecture recital

Eligibility requirements for admission to student teaching are:

- Complete the required block of freshman, sophomore, and junior observations and field study in the public schools
  - First year observation: 6 observations in the music classroom, 4 observations in special education
  - Sophomore year: observations in elementary music attached to MUS 182 General Music Methods
  - Junior year field experience: comprehensive week of observation and teaching in the public schools with one cooperating teacher.
- Attain a cumulative GPA of 3.00 in all college courses
- Complete and attain a minimum grade of B- in all Primary Private Lessons (odd numbers), Large Ensembles, Capstone Recital (or Project), Conducting (MUS 271, 272, and 273), and Professional music courses (MUS 182, 183 and 184)
- File the Pennsylvania Child Abuse History Clearance, Pennsylvania Criminal History Background Check and FBI Fingerprint Clearance to be completed in the second semester of the first year and updated as necessary throughout the collegiate career
- Pass the proficiency examination in piano by the end of the junior year: Major scales, minor scales, Star-Spangled Banner (by memory), sight reading, open score, hymn, improvisation, accompanying, harmonization, and transposition
- Certification Testing: Pass the Praxis examinations as required by the
state of Pennsylvania

• Pre-professional Skills Tests: reading, writing, and mathematics (take by second semester of freshman year)

• Fundamentals of Education Test and Music Core (take by second semester of junior year)

• Make formal application to student teach by mid-term break of Spring Semester of junior year (form is available in music office)

• Receive a current negative Tine test in the semester immediately preceding student teaching

Eligibility requirements for recommendation for Pennsylvania state teacher certification in Music K-12:

• Pass the Pre-professional Skills Test (reading, writing, and mathematics), the Fundamentals of Education Test and the Music Core Battery of the Praxis Series Examination

• Attain a minimum grade equal to 3.000 in each of MUS 195 and 196 (student teaching)

NOTE: Changes in state requirements take precedence over information printed in this Undergraduate Catalog.

Each student is required to regularly attend MUS 600 (Music Colloquium) and MUS 600M (Master Class) each semester as a part of his/her private lessons, and MUS 600L (Instrumental Performance Lab) during those semesters he/she is taking instrumental pedagogy classes (MUS 200, 201, 202, 203, 204, and 205) or instrumental conducting class (MUS 273). Of the required pedagogies, students must take one string lab.

The Pennsylvania state requirement of teachers to take 6 hours of English composition and literature are fulfilled when the student passes INQ 111 and WRI 111.

A letter grade of at least C- must be attained in each of MUS 121, 122, 123, 124, 126, 141, and 142 in order to count for graduation. (Also see the college-wide minimum grade standard for courses taken in the major, under Academic Policies.)

NOTE: Although a C- is acceptable, students are strongly encouraged to maintain at least a B cumulative average in these courses in order to attain the 3.000 GPA necessary to student teach.

BACHELOR OF MUSIC—The Major in INSTRUMENTAL PERFORMANCE
The curriculum prescribes the following courses (96 semester hours):

**Theory (28 SH)**

MUS 121, 121L, 122, 122L, 123, 123L, 124, 124L, 125, 126 and 127 or 129.

**History (8 SH)**

MUS 141, 142

**Music Literature (12 SH)**

MUS 167, 168

Elect one course from MUS 160, 161, 162, 163, 164, or 165

**Conducting (2 SH)**

MUS 271, 273

Voice concentrations take 2 semester hours, specifically MUS 271 plus either MUS 272 or 273

**Private Lessons (15 SH)**

1 semester hour in first semester of first year, MUS __________, plus 2 semester hours in primary area each of the next 7 semesters MUS________ (**Number would be determined by instrument) (MUS 383)

**Repair (1 SH)**

MUS 212, 213 (strings, percussion TBA)

**Conducting (2 SH)**

MUS 271, 273

**Pedagogy (1 SH)**

MUS 200-205 (primary area only)

**Chamber Music (7)**

MUS 411-417, 442 (primary instrument)

**Large Ensembles (8 SH)**

8 semesters of large ensemble

**Secondary Ensemble**

2 semester hours of an ensemble that is not listed as a Large Ensemble (ex. MUS 402-407, 411-417, 422, 442)

**Elective Ensembles (4 SH)**

MUS (401, 402, 407 441) in addition to Large Ensemble

**Junior Recital (2 SH)**

MUS 397 Junior Recital

**Capstone Recital (4 SH)**

MUS 601 Capstone Recital

**Music Electives (2 SH)**

*(Successful completion of piano proficiency)*

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**BACHELOR OF MUSIC**—The Major in **PIANO PERFORMANCE**
The curriculum prescribes the following courses (95 semester hours):

**Theory (28 SH)**

- MUS 121, 121L, 122, 122L, 123, 123L, 124, 124L, 125, 126 and 127 or 129

**History (8 SH)**

- MUS 141, 142

**Music Literature (12 SH)**

- MUS 161
  - Elect two courses from MUS 162, 163, 164, or 165

**Conducting (3 SH)**

- MUS 271, 272, and 273
  - Voice concentrations take 2 semester hours, specifically MUS 271 plus either MUS 272 or 273

**Private Lessons (21 SH)***

- 1 semester hour in first semester of first year, MUS 383, plus 2 semester hours in each of the next 7 semesters—allowable in Piano (MUS 393)
  - Piano concentrations also take 2 semester hours (1 each for 2 semesters) in voice (MUS 381) and 4 semester hours (1 each for 4 semesters) in organ (MUS 387)

**Large Ensembles (8 SH)**

- 8 semesters of Large Ensemble

**Secondary Ensemble**

- 2 semester hours of an ensemble that is not listed as a Large Ensemble (ex. MUS 402-407, 411-417, 422, 442)

**Music Electives (4 SH)**

- One four-hour elective in music

**Junior Recital (2 SH)**

- MUS 397 Junior Recital

**Capstone Recital (4 SH)**

- MUS 601 Capstone Recital

**Techniques (5 SH)**

- MUS 210, 215, 243, 244

*(Successful completion of piano proficiency)*

**BACHELOR OF MUSIC—The Major in ORGAN PERFORMANCE**

The curriculum prescribes the following courses (95 semester hours):

**Theory (28 SH)**

- MUS 121, 121L, 122, 122L, 123, 123L, 124, 124L, 125, 126 and 127 or 129

**History (8 SH)**

- MUS 141, 142

**Music Literature (12 SH)**

- MUS 162
  - Elect two courses from MUS 161,
Conducting (3 SH)  MUS 271, 272, and 273
Private Lessons (21 SH)*  1 semester hour in first semester of first year, MUS 387, plus 2 semester hours in each of the next 7 semesters-allowable in Organ (MUS 395)

Organ concentrations also take 2 semester hours (1 each for 2 semesters) in voice (MUS 381) and 4 semester hours (1 each for 4 semesters) in piano (MUS 383)

Large Ensembles (8 SH)  8 semesters of Large Ensemble
Secondary Ensemble  2 semester hours of an ensemble that is not listed as a Large Ensemble (ex. MUS 402-407, 411-417, 422, 442)

Music Electives (4 SH)  One four-hour elective in music
Junior Recital (2 SH)  MUS 397 Junior Recital
Capstone Recital (4 SH)  MUS 601 Capstone Recital
Techniques (5 SH)  MUS 211, 215, 243, 244, 251

(Successful completion of piano proficiency)

BACHELOR OF MUSIC—The Major in VOCAL PERFORMANCE

The curriculum prescribes the following courses (96 semester hours):

Theory (28 SH)  MUS 121, 121L, 122, 122L, 123, 123L, 124, 124L, 125, 126 and 127
History (8 SH)  MUS 141, 142
Music Literature (12 SH)  MUS 163
Elect three courses from MUS 161, 162, 164, or 165

Conducting (2 SH)  MUS 271 plus either MUS 272 or 273
Private Lessons (21 SH)*  1 semester hour in first semester (MUS 381), plus 2 semester hours- in each of the next 7 semesters-(MUS 391)

Voice concentrations also take 6 semester hours (1 each for 6 semesters) in piano (MUS 383)

Large Ensembles (8 SH)  Voice concentrations take 7 semesters of Large Ensemble
Secondary Ensemble  2 semester hours of an ensemble that is not listed as a Large Ensemble (ex. MUS 402-407,
Music Electives (4 SH) One four-hour elective in music
Additional Ensembles (4 SH) Voice concentrations take 2 semester hours of musical or opera workshop
Junior Recital (2 SH) MUS 397 Junior Recital
Capstone Recital (4 SH) MUS 601 Capstone Recital
Techniques (5 SH) Voice concentrations take MUS 206, 207, 208, 209, 244

*There are no private music lesson fees for prescribed lessons. However, students will be assessed private music lesson fees for any additional private lessons.

Each student is required to regularly attend MUS 600 (Music Colloquium) and MUS 600M (Master Class) each semester as a part of his/her private lessons, and MUS 600L (Instrumental Performance Lab) during the semester he/she is taking instrumental conducting class (MUS 273).

**A student may be admitted into the performance major, on a provisional basis only, during the first semester of the first year, during which the student will be allowed to take private lessons at the frequency of one hour of instruction per week. The faculty jury at the end of the first semester of private study will assess whether or not the student qualifies to continue as a performance major. A student who is permitted to remain in the major will subsequently take private lessons at the frequency of two hours of instruction per week.

***MUS 602 Capstone Lecture Recital is not an option for the performance major.

Each student is required to pass a series of examinations on his/her primary instrument, as follows:

8 Juries one at the end of each semester’s primary private lessons
1 Sophomore Hearing performance and portfolio review during second semester of sophomore year
2 Recital Hearings two weeks prior to the Junior and the Capstone Recitals

Each student is required to pass the piano proficiency examination prior to graduation.

A letter grade of at least C- must be attained in each of MUS 121, 122, 123, 124, 125, 141, and 142, and a letter grade of at least B- must be attained in each of MUS 271, 272, and 273, and in all Primary Private Lessons (odd numbers) in order to count for graduation. (Also see the college-wide minimum grade standard for courses taken in the major, under Academic Policies.)

BACHELOR OF MUSIC—The Major in SACRED MUSIC
The curriculum prescribes the following courses (95 semester hours):

- **Theory (24 SH)**
  
  MUS 121, 121L, 122, 122L, 123, 123L, 124, 124L, 125, and 127 or 129

- **History (8 SH)**
  
  MUS 141, 142

- **Literature (8 SH)**
  
  MUS 162, 164

- **Conducting (3 SH)**
  
  MUS 271, 272, 273*

- **Elective in Religion (4 SH)**

- **Pedagogy (1 SH)**
  
  MUS 206

- **Electives (3 SH)**
  
  MUS 207, 208, 209, 367, 379

- **Sacred Music (14 SH)**
  
  MUS 170, 172, 283

- **Electives (4 SH)**
  
  1 four-hour elective in music

- **Techniques (2 SH)**
  
  MUS 243, 251

- **Private Lessons (12 SH)**
  
  8 semesters private study (total of eight semester hours of credit), 2 in organ (MUS 387), and 2 semesters private study in piano (MUS 383)

- **Large Ensembles (8 SH)**
  
  8 semesters’ participation in a Large Choral Ensemble

- **Secondary Ensemble**
  
  2 semester hours of an ensemble that is not listed as a Large Ensemble (ex. MUS 402-407, 411-417, 422, 442)

- **Capstone Recital (4 SH)**
  
  MUS 601 Capstone Recital in organ or MUS 602 Capstone Lecture Recital in organ

*Students are required to take MUS 600L (Instrumental Performance Lab) during the semester he/she is taking MUS 273 (Instrumental Conducting).

**There are no private music lesson fees for prescribed lessons. However, students will be assessed private music lesson fees for any additional private lessons.

Students must take REL 122/MUS 173 as the Intellectual Perspectives course in Visual and Performing Arts.

Each student is required to pass a series of examinations on his/her primary instrument, as follows:
9 to 11 Juries

1 Sophomore Hearing

1 Recital Hearing

Each student is required to pass the piano proficiency examination prior to graduation.

Each student is required to regularly attend MUS 600 (Music Colloquium) and MUS 600M (Master Class) each semester as a part of his/her private lessons.

A letter grade of at least C- must be attained in each of MUS 121, 122, 123, 124, 125, 141, 142, 170, 171, 172, and a letter grade of at least B- must be attained in each of MUS 271, 272, and 273, and in all Primary Private Lessons (odd numbers) in order to count for graduation. (Also see the college-wide minimum grade standard for courses taken in the major, under Academic Policies.)

BACHELOR OF ARTS—The primary or single major in MUSIC

The curriculum prescribes the following courses (48 semester hours):

Theory (20 SH) MUS 121, 121L, 122, 122L, 123, 123L, 124, 124L, 125

History (8 SH) MUS 141, 142

Private Lessons (8 SH)* 8 semester hours in primary instrument or voice (odd course numbers)

Large Ensemble (8 SH) 8 separate semesters’ participation in a Large Ensemble

Secondary Ensemble 2 semester hours of an ensemble that is not listed as a Large Ensemble (ex. MUS 402-407, 411-417, 422, 442)

Capstone Recital (4 SH) MUS 601 Capstone Recital, or MUS 602 Capstone Lecture Recital

*There are no private music lesson fees for prescribed lessons. However, students will be assessed private music lesson fees for any additional private lessons.

Each student is required to pass a series of examinations on his/her primary instrument, as follows:
8 Juries one at the end of each semester’s private lessons

1 Sophomore Hearing performance and portfolio review during second semester of sophomore year

1 Recital Hearing two weeks prior to the Capstone Recital or Lecture Recital

Each student is required to regularly attend MUS 600 (Music Colloquium) and MUS 600M (Master Class) each semester as a part of his/her private lessons.

A letter grade of at least C- must be attained in MUS 121, 122, 123, 124, 125, 141, and 142, and a letter grade of at least B- must be attained in all Primary Private Lessons (odd numbers) in order to count for graduation. (Also see the college-wide minimum grade standard for courses taken in the major, under Academic Policies.)

BACHELOR OF ARTS or BACHELOR OF SCIENCE—Music as a SECOND MAJOR

The curriculum prescribes the following courses (40 semester hours):

- **Theory (12 SH)**  MUS 121, 121L, 122, 122L, 123, 123L
- **History (8 SH)**  MUS 141, 142
- **Private Lessons (8 SH)** 8 semester hours in primary instrument or voice (odd course numbers)
- **Large Ensemble (8 SH)** 8 separate semesters’ participation in a Large Ensemble
- **Secondary Ensemble** 2 semester hours of an ensemble that is not listed as a Large Ensemble (ex. MUS 402-407, 411-417, 422, 442)
- **Capstone Recital (4 SH)** MUS 601 Capstone Recital, or MUS 602 Capstone Lecture Recital

A student choosing a second major in music while majoring in early childhood education must pass the piano proficiency exam.

*There are no private music lesson fees for prescribed lessons. However, students will be assessed private music lesson fees for any additional private lessons.

Each student is required to pass a series of examinations on his/her primary instrument, as follows:
8 Juries
one at the end of each semester’s primary private lessons

1 Sophomore Hearing
performance and portfolio review during second semester of sophomore year

1 Recital Hearing
two weeks prior to the Capstone Recital or Lecture Recital

Each student is required to regularly attend MUS 600 (Music Colloquium) and MUS 600M (Master Class) each semester as a part of his/her private lessons.

A letter grade of at least C- must be attained in MUS 121, 122, 123, 141, and 142 in order to count for graduation. (Also see the college-wide minimum grade standard for courses taken in the major, under Academic Policies.)

Program for Minors

BACHELOR OF ARTS or BACHELOR OF SCIENCE—Music as a MINOR

The curriculum prescribes the following courses (24 semester hours):

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
<th>Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Theory (8 SH)</td>
<td></td>
<td>MUS 121, 121L, 122, 122L</td>
</tr>
<tr>
<td>History (4 SH)</td>
<td></td>
<td>Elect either MUS 101, 141 or 142</td>
</tr>
<tr>
<td>Private Lessons (4 SH)</td>
<td></td>
<td>4 semesters’ private study in primary instrument or voice (odd numbered lessons)</td>
</tr>
<tr>
<td>Large Ensemble (4 SH)</td>
<td></td>
<td>4 separate semesters’ participation in a Large Ensemble</td>
</tr>
<tr>
<td>Secondary Ensemble</td>
<td></td>
<td>2 semester hours of an ensemble that is not listed as a Large Ensemble (ex. MUS 402-407, 411-417, 422, 442)</td>
</tr>
<tr>
<td>Music Electives (4 SH)*</td>
<td></td>
<td>4 semester hours of credit in music</td>
</tr>
</tbody>
</table>

*A student may choose to take additional semesters’ private study (lessons) by paying the private lesson fee.

Music minors are required to perform juries only in the semesters where they take the odd numbered section of the private lesson.

A letter grade of at least C- must be attained in MUS 101 (or 141 or 142) and 121 and 122 in order to count for graduation.

Music Private Lessons

Required private lessons. Students whose major or minor programs prescribe private lessons (excepting the music performance majors) will use the odd numbers
for those prescribed private lessons on their primary instrument or voice. They will receive one hour of instruction each week for one semester hour’s credit. Each music major is required to participate in the Music Colloquium, as a twice-weekly attendee and a once-each-semester performer, and the appropriate Master Class, as a regular attendee and participant. Students officially excused from Colloquium due to unavoidable scheduling conflicts must still perform once during the semester in Colloquium Performance Class recital. Students officially excused from Master Class due to unavoidable scheduling conflict must still perform twice during the semester in Master Class. A jury is to be performed at the end of each semester’s study. Music minors are exempt from attending Master Classes and Colloquium. The student will prepare the jury with the assistance of the private teacher, excepting the one new work which each student beyond the fourth semester of study is required to prepare for each jury without the assistance of the teacher. Prerequisites: student must be actively pursuing the chosen music major or minor. Additionally, the student must receive permission of the instructor. Credit: 1 semester hour; may be repeated for credit. NOTE: A letter grade of B- must be attained in primary private lessons (odd numbers) in order to count for graduation as a music major or minor. Elected private lessons. Students who choose to take private lessons beyond those prescribed for their major or minor programs will use the even numbers for all non-prescribed private lessons. These students will receive 1/2 hour of instruction each week for one semester hour’s credit. Participation in Master Class and an end-of-the-semester jury on these instruments or voice are not required; however, students may participate in both upon recommendation of their instructors. Prerequisite: permission of the instructor. Credit: 1 semester hour; may be repeated for credit. Extra fee: students registering for even numbered private lessons must pay the private lesson fee.

Performance majors. Commencing with their second semester, students who are majoring in performance, under the B.M. degree, will use the following numbers for private lessons on their primary instrument or voice. They will receive two hours of instruction each week for two semester hour’s credit. Each student is

<table>
<thead>
<tr>
<th>Instrument</th>
<th>301 Flute</th>
<th>303 Oboe</th>
<th>305 Clarinet</th>
<th>307 Bassoon</th>
<th>309 Saxophone</th>
<th>321 French Horn</th>
<th>323 Trumpet</th>
<th>325 Trombone</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>327 Euphonium</td>
<td>329 Tuba</td>
<td>341 Percussion</td>
<td>343 Violin</td>
<td>345 Viola</td>
<td>347 Violoncello</td>
<td>349 Double Bass</td>
<td>361 Guitar</td>
</tr>
<tr>
<td></td>
<td>367 Jazz Improvisation</td>
<td>369 Composition</td>
<td>381 Voice</td>
<td>383 Piano</td>
<td>384 Harp</td>
<td>387 Organ</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Instrument</th>
<th>300 Flute</th>
<th>302 Oboe</th>
<th>304 Clarinet</th>
<th>306 Bassoon</th>
<th>308 Saxophone</th>
<th>320 French Horn</th>
<th>322 Trumpet</th>
<th>324 Trombone</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>326 Euphonium</td>
<td>328 Tuba</td>
<td>340 Percussion</td>
<td>342 Violin</td>
<td>344 Viola</td>
<td>346 Violoncello</td>
<td>348 Double Bass</td>
<td>360 Guitar</td>
</tr>
<tr>
<td></td>
<td>362 Carillon</td>
<td>366 Jazz Improvisation</td>
<td>368 Composition</td>
<td>380 Voice</td>
<td>382 Piano</td>
<td>385 Harp</td>
<td>386 Organ</td>
<td></td>
</tr>
</tbody>
</table>
required to participate in the Music Colloquium, as a twice-weekly attendee and a once-each-semester performer, and the appropriate Master Class, as a regular attendee and participant. Students officially excused from Colloquium due to unavoidable scheduling conflicts must still perform once during the semester in Colloquium Performance Class recital. Students officially excused from Master Class due to unavoidable scheduling conflict must still perform twice during the semester in Master Class. A jury is to be performed at the end of each semester’s study. The student will prepare the jury with the assistance of the private teacher, excepting the one new work which each student beyond the fourth semester of study is required to prepare for each jury without the assistance of the teacher. Prerequisites: student must be actively pursuing the performance major, and must have completed required private lessons (odd numbers-1 credit). Additionally, the student must receive permission of the instructor. Credit: 2 semester hours; may be repeated for credit. NOTE: A letter grade of B- must be attained in primary private lessons (odd numbers) in order to count for graduation as a music major.

**Music Ensembles**

(Large Ensembles. For purposes of satisfying specific major and minor requirements, the following are categorized as Large Ensembles: MUS 401, 421, 423, 424, and 441. All ensembles may be repeated for credit.)

<table>
<thead>
<tr>
<th>311 Flute</th>
<th>335 Trombone</th>
<th>359 Double Bass</th>
</tr>
</thead>
<tbody>
<tr>
<td>313 Oboe</td>
<td>337 Euphonium</td>
<td>371 Guitar</td>
</tr>
<tr>
<td>315 Clarinet</td>
<td>339 Tuba</td>
<td>373 Carillon</td>
</tr>
<tr>
<td>317 Bassoon</td>
<td>351 Percussion</td>
<td>391 Voice</td>
</tr>
<tr>
<td>319 Saxophone</td>
<td>353 Violin</td>
<td>393 Piano</td>
</tr>
<tr>
<td>331 French Horn</td>
<td>355 Viola</td>
<td>399 Organ</td>
</tr>
<tr>
<td>333 Trumpet</td>
<td>357 Violincello</td>
<td></td>
</tr>
</tbody>
</table>

**Neuroscience**

*Coordinators: Robin W. McGovern (Psychology), Katherine L. Robertson (Biology)*
Degree Offered: Bachelor of Science
Major Program: Neuroscience

Neuroscience is a major program whose curriculum is composed of biology and psychology courses and additional courses in chemistry, physics, mathematics, philosophy and computer science depending upon a student’s particular interest. It is designed to provide the necessary scientific background for students interested in the biological basis of behavior and the relationship of neural and psychological processes. In addition to the core requirements, a flexible program of additional courses are planned during advisement centering around a student’s particular ambitions.

Requirements: A student must complete 64 semester hours of required and recommended courses. Required are BIO 201, 202, 302 or 303, 334 or 335/336 (335/336 will be accepted as fulfilling the requirement with adviser permission only), PSY 101, 201, 601, 602, MTH 131 or 150, and NS 341, 590, 631, 632, and BIO/NS 434. Additionally students must make selections from the following courses (or approved alternatives):

BIO 302, 303, 304, 363 or approved elective
CHE 117, 180, 261, 262, 380
CS 151, 152, 271
PHI 218
PHY 141, 142, 151, 152
PSY 261, 262, 281, 315, 351

NOTE: All students are required to present their theses during the Spring Semester of their senior year at a regional undergraduate research conference or appropriate professional conference.

Peace Studies
(minor program or concentration only)

The Peace Studies Program at Westminster College is an interdisciplinary, academic program designed to prepare students for the challenge of living in an increasingly diverse and global community. Faculty at Westminster College officially established a Peace Studies Program in the spring of 1995 to engage faculty and students in the enduring human question: What are the causes of conflict and the means for resolving and preventing conflict? Recent uncertainties about the nature of world security make the present an especially opportune time for peace studies.

Students in peace studies will explore difficult societal and ethical concerns from multiple perspectives. In addition to understanding conflict and its resolution, coursework emphasizes global awareness, multiculturalism, public policy, ethics and human rights. Students are encouraged to tailor course selection to meet post-graduation goals and to enhance their ability to secure jobs in an increasingly global economy and multicultural society. Through service learning at the local, national or international level, students will translate their competencies into action.

STUDENTS IN THE PEACE STUDIES PROGRAM:

Students may complete a minor in peace studies to enhance their major. Students
must complete 24 credit hours of required and recommended courses to receive a
minor in peace studies. Required courses are PAX 101: Introduction to Peace Studies
and PAX 301: Advanced Peace Studies Seminar. In addition, students wishing to
earn a minor must take four electives from courses approved by the Peace Studies
Steering Committee. A list of approved courses is given below. At least eight
semester hours must be outside of the student’s major. Students who do not have
time to complete a peace studies minor may choose to complete a concentration
in peace studies by selecting four or more peace studies electives.

Courses from which peace studies electives may be chosen:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ES 160</td>
<td>Concepts of Environmental Science</td>
</tr>
<tr>
<td>HIS 223</td>
<td>African-American History</td>
</tr>
<tr>
<td>HIS 246</td>
<td>20th Century Europe</td>
</tr>
<tr>
<td>HIS 252</td>
<td>Modern Russia</td>
</tr>
<tr>
<td>HIS 272</td>
<td>Latin America from 1825</td>
</tr>
<tr>
<td>HIS 282</td>
<td>Africa Since 1800</td>
</tr>
<tr>
<td>HIS 301</td>
<td>America in the Sixties</td>
</tr>
<tr>
<td>HIS 308</td>
<td>Cold War</td>
</tr>
<tr>
<td>HIS 311</td>
<td>South Africa</td>
</tr>
<tr>
<td>PS 204</td>
<td>Model United Nations*</td>
</tr>
<tr>
<td>PS 235</td>
<td>Politics and Society in Africa</td>
</tr>
<tr>
<td>PS 241</td>
<td>Public Policy</td>
</tr>
<tr>
<td>PS 331</td>
<td>Geopolitics</td>
</tr>
<tr>
<td>PS 332</td>
<td>United States Foreign Policy</td>
</tr>
<tr>
<td>PS 431</td>
<td>International Organizations</td>
</tr>
<tr>
<td>PSY 213</td>
<td>Psychology of Prejudice</td>
</tr>
<tr>
<td>PSY 321</td>
<td>Social Psychology</td>
</tr>
<tr>
<td>PSY 331/GS 331</td>
<td>Psychology of Women</td>
</tr>
<tr>
<td>REL 102</td>
<td>Understanding the Christian Faith</td>
</tr>
<tr>
<td>REL 111</td>
<td>Understanding Religious Experience and Expression</td>
</tr>
<tr>
<td>REL 119</td>
<td>Religion in America</td>
</tr>
<tr>
<td>SOC 105</td>
<td>Cultural Anthropology</td>
</tr>
<tr>
<td>SOC 107/GS 107</td>
<td>Sociology of Gender</td>
</tr>
<tr>
<td>SOC 209</td>
<td>Majority-Minority Relations</td>
</tr>
<tr>
<td>SOC 214</td>
<td>Social Class in America</td>
</tr>
<tr>
<td>SOC 215/GS 215</td>
<td>Women in Cross-Cultural Perspective</td>
</tr>
<tr>
<td>SOC 241/GS 241</td>
<td>Sociology of Violence and Nonviolence</td>
</tr>
<tr>
<td>SOC 303/REL 221</td>
<td>Religion and Society</td>
</tr>
<tr>
<td>THE 225</td>
<td>Theatre and Social Engagement</td>
</tr>
</tbody>
</table>

* PS 204 is a one-credit course. Students will need to complete a minimum of four semesters of PS 204 to count as one peace studies elective.

Other courses may be taken for peace studies credit with the approval of the
steering committee.

Physical Education
(No major programs)

Professors: Robert G. Klamut Jr., D. Scott Renninger
Associate Professor: Tammy L. Swearingen
Chair: Mr. Renninger

The primary goal of the Department of Physical Education is to be a driving force in the pursuit of fitness and the knowledge of its importance. The role of physical education during the past several decades has become increasingly important as social awareness of physical appearance, physiological fitness, and mental well-being have come to the forefront. The life expectancy of people has increased significantly and great emphasis is being placed on fitness and vitality as the body and the mind work together.

Therefore, the most important function of physical education is to promote and encourage active participation in a variety of physical activities. These activities will not only afford immediate educational opportunities but encourage students to improve individual skills and competencies that will carry far beyond the present.

The courses offered by the department are designed to broaden the fitness, knowledge, and skills level of students in conjunction with their individual needs and interests. Special emphasis is being placed on fitness and wellness to assist students in generating a more vibrant and energetic lifestyle.

Liberal Studies Requirements: There is a four-course requirement for all students. These courses will meet twice weekly for 45 minutes for seven weeks each (unless noted in the schedule). Wellness is required for all students. This is a classroom course to increase students’ knowledge in the many aspects of keeping “well.” Additionally, an aquatic course is required (or the passing of a swimming proficiency test offered to all incoming students only EARLY in the fall semester). Swim classes are available in Level I (beginning or unable to swim) and Level II. Other opportunities available are in water aerobics, aquatic games, and certification courses in lifeguarding and scuba.

The remaining two courses may be selected from a wide range of offerings including physical fitness, weight training, badminton, tennis, bowling, horseback riding, racquetball, golf, aerobics, karate, pickle ball, dance (jazz, advanced jazz, tap, ballet, and folk), and ice skating, or participation for two semesters in an approved intercollegiate sport. CPR certification is also offered.

Exceptions to the PE requirement based on medical excuses must be approved by the College physicians.

Intercollegiate and Intramural Programs: Westminster sponsors intercollegiate teams in baseball, basketball, cross country, football, golf, soccer, softball, swimming, tennis, track and field, and volleyball. The College is a member of the National Collegiate Athletic Association (NCAA) Division III, the Eastern College Athletic Conference (ECAC), and the Presidents’ Athletic Conference (PAC). First-year students are eligible to participate.

An intramural program, under the supervision of the department, is offered with
competition in badminton, basketball, coed volleyball, soccer, softball, table tennis, touch football, volleyball, and walleyball. Participation in the intramural program is voluntary and does not offer credit.

**Recreational Program:** A monthly schedule informs students about the availability of the College facilities for leisure time activities. This includes the gymnasiums (main and intramural), natatorium, and two racquetball courts. Canoes are available for use on Brittain Lake at scheduled times during the year.

**Physics**

*Associate Professor: Craig L. Caylor*
*Assistant Professors: Douglas N. Armstead, Thomas E. Oberst*
*Visiting Assistant Professor: André M. Wehner*
*Chair: Dr. Caylor*

**Degree Offered:** Bachelor of Science  
**Major Program:** Physics  
**Interdisciplinary Program:** Environmental Science  
**Minor Program:** Physics  
**Teacher Certification:** Physics

The aim of the Department of Physics is to help students develop an understanding of the fundamental laws and behavior of the physical universe and to appreciate the techniques used by scientists in acquiring such an understanding. Majors in physics have the opportunity to study the most important areas of classical and modern physics. Majors in other sciences are given background in physics to support their own work, while students not majoring in science are aided in understanding the basic concepts of physical science.

The department recognizes that there are many possible career objectives for a physics major. A physics major can prepare a student for careers such as secondary school teaching, industrial research, general engineering, or many other jobs that require technical problem-solving skills. With the physics major and additional graduate study, students can prepare for careers in basic research, teaching at the college or university level, medical physics, specialized engineering fields, and combination fields such as biophysics. Students interested in pursuing an engineering program of study have the option of majoring in physics with a concentration in 3-2 engineering. This program option is described in pre-professional programs, p. 81.

Laboratory work is important in the understanding and discovery of physics and is an essential part of the major program. This laboratory program, which is supported by a number of modern lab resources, follows an integrated plan designed to give the student more feeling for the concepts discussed in the classroom and to provide training in experimental method and technique. Astronomy teaching is supported with a planetarium and observatory.

**The Major in Physics:** The requirements for a major in physics are met by taking
64 semester hours:

- 44 semester hours of physics courses from among: PHY 151, 152, 311, 313, 321, 322, 331, 332, 351, 352, 401, 402 OR 404, 601, 602; and
- At least five courses (20 semester hours) from among
  1) MTH 150, 152, 250, 253, 261, 321;
  2) CHE 117, 180, 230;
  3) CS 151, 152;
  4) BIO 201, 202.

At least three of the courses selected must be mathematics courses.

A student who has a concentration in 3-2 engineering will not be required to take PHY 401, 402, 404, 601, 602, but must satisfy the remaining requirements of the physics major, a total of 52 semester hours. Additionally, students in this concentration must complete a B.S. in engineering at an approved school to fulfill the requirements for a major in physics at Westminster.

Physics majors participating in the All-College Honors Program are still required to complete the capstone courses PHY 601 and PHY 602.

**The Minor in Physics:** All physics minors must complete 24 semester hours. A minor in physics consists of PHY 141 OR PHY 151, PHY 142 OR PHY 152, and 16 additional semester hours of physics coursework at the 200 level or higher.

**Interdisciplinary Programs:** The environmental science program is offered through the departments of physics, biology, chemistry, and mathematics and computer science (see p. 107).

**Secondary Education Teacher Certification:** To be eligible for certification in physics students must successfully complete all requirements for the major, the requirements for graduation listed on p. 55, and successfully complete the minor in secondary education. Requirements for the minor are listed in the Department of Education, p. 103.

The prerequisites for admission to the Senior Block are a cumulative GPA of 3.000 in all college work and 3.000 in the major. “In the major” is defined as all physics courses taken.

Students who are interested in secondary education should contact the chair of the Department of Education as soon as possible for complete information. If all requirements are to be completed in four years, careful planning in both the major field and in the minor is essential.

**Political Science**
Degree Offered: Bachelor of Arts
Major Programs: Political Science
Interdisciplinary Program: International Studies
Minor Program: Political Science
Teacher Certification: Social Studies

Political Science

The program in political science is designed to provide the student with a knowledge of political theory, of the American political system, of the political systems of other areas of the world, and of international politics and institutions.

The political science program prepares students for careers in government service, teaching, law, and related professional and graduate study. It also offers electives in support of major programs in other disciplines.

Students planning subsequent enrollment in law school are advised to consult the pre-law adviser. Special programs in international relations and foreign areas can be arranged for students planning careers in the Foreign Service of the United States, in international organizations, or in education.

Westminster students may enroll in the Washington Semester program of governmental study in Washington, D.C., at American University, or in other approved off-campus programs.

Westminster students may make use of internships in law offices or government agencies.

The Major in Political Science: All political science majors must complete 44 semester hours in the major as follows:

- PS 101, 102, 103, 104, 301, 601
- One course in American Politics (PS 211, 212, 213, 214, 215, 251, 252, 302, 303, 311, 411)
- One course in Political Theory or Public Policy (PS 221, 222, 241, 242, 251, 253, 321, 322, 323, 324)
- One course in International Politics or Comparative Politics (PS 204, 232, 233, 235, 236, 254, 255, 331, 332, 431)
- At least three political science electives

In addition, all political science majors must take SSC 252.

NOTE: All political science majors will take PS 301 in the Spring Semester of the junior year, and PS 601 in the Fall Semester of the senior year. The two courses are linked and together make up a unified capstone experience. Political science majors who enroll in the Honors program are required to complete the political
science capstone program – PS 301, PS 601, and SSC 252 – as well.

**Interdisciplinary Programs:** Requirements for international studies are found on p. 111.

**The Minor in Political Science:** All political science minors must complete 24 semester hours in the minor as follows:

- Three of the following: PS 101, 102, 103, 104
- Three political science electives
- Internship/Field Experience may count toward the minor

No grades below C- may be counted toward any requirement for the major or minor. Only one internship/field experience may be counted toward the minimum 48 semester hours in the major.

**Political Science Majors planning to attend law school:** The following is a list of recommended courses. These are not required courses, but all do help the student develop some of the skills abilities, and knowledge helpful for success in law school:

- BA 230: Business Law
- PS 214: The Courts
- PS 321: American Constitutional Law - Government Powers
- PS 322: American Constitutional Law - Civil Rights and Liberties
- PS 431: International Law and Organization
- ECO 150: Economic Reasoning
- PHI 102: Practical Logic
- PHI 230-259: Practical Ethics
- CJS 202 (formerly SOC 202): Criminology
- CJS 302 (formerly SOC 302): Sociology of Law and Legal Systems

Students interested in attending law school may wish to consider the 3-3 cooperative program with Duquesne University Law School. More information is listed in the pre-professional programs section, p. 79.

**Secondary Education Teacher Certification:** To be eligible for certification in social studies with a major in political science, students must successfully complete a major in political science and a minor in secondary education.

Students who are interested in secondary education should contact the coordinator of secondary education in the Department of Education, as soon as possible for complete information on the requirements for certification.

**Psychology**
The psychology major is designed to enhance a broad array of fundamental abilities — written and spoken verbal mastery; quantitative facility (especially statistical); and creative problem solving (stressing the scientific method and information technology tools). The major is composed of required and elective content area courses (both laboratory and applied work, an internship and a senior thesis). The senior thesis is accomplished as part of a full-year program of independent and guided research.

Psychology majors find employment in a variety of areas including: mental health, business and industry, educational counseling, research, sales, social work, government and medical services. Because there are so many possible avenues of future employment for psychology majors, students are encouraged to select their courses, internship sites, and senior thesis topics to be most relevant to a particular career track. These “advising” tracks include developmental psychology, business and organizational psychology, clinical/counseling psychology, occupational therapy, and research/general psychology.

The Major in Psychology: A major in psychology consists of a minimum of 44 semester hours in psychology (not including support courses). The requirements are listed below.

Psychology Courses (includes supporting courses):

- Introductory Psychology (PSY 101),
- Statistical Methods and Analysis (PSY 201);
- A minimum of one course from the following:
  - Principles of Learning (PSY 281), or
  - Cognition (PSY 351);
- A minimum of one course from the following:
  - Psychological Assessment (PSY 301), OR
  - Social Psychology (PSY 321)
- Four to five elective psychology courses
- Internship (PSY 590)
- Senior Research composed of:
  - Psychology Capstone: Senior Studies I & II (PSY 601, 602; 2 semester
hours each), and
Advanced Research I & II (PSY 631-640; 2 semester hours each),
OR
Honors Research (PSY 670-690; minimum of 8 semester hours)
OR
Research Scholars (PSY 650; minimum of 12 semester hours)

**Required Support Courses:**
MTH 131 or approved alternative; and two of the following courses: BIO 201, BIO 202, PHY 141, PHY 142, PHY 151, PHY 152, CHE 117, CHE 180, PSY 341.

**NOTE:** All majors complete the continuous two-semester Senior Studies as the capstone. Students complete a thesis in psychology which is normally an empirical research study in an area of psychology of particular interest to the student. Students register for both Senior Studies and Advanced Research with their particular thesis adviser. Students begin work on their theses during the Spring Semester of their junior year and complete the thesis in the Fall Semester of their senior year. Psychology majors who are in the all-college honors program must have at least a 3.500 average in three or more psychology courses and complete a departmental application to be approved for Honors Research. There are also opportunities for a more extensive capstone project through our Research Scholars Program. All students are required to present their theses during the Spring Semester of their senior year at a regional undergraduate research conference or appropriate professional conference.

**Advising Tracks:**

The tracks listed below are an advising tool to help students plan courses to meet their career aspirations. These tracks are intended to help students choose a) among required major courses (e.g., either PSY 301 or PSY 321 is required); b) psychology electives most consistent with their goals; and c) other useful courses outside the psychology department. Courses required for all psychology majors are: PSY 101, 201, 601, 602.

*Developmental Psychology Track:*
Recommended Major Requirement Options: PSY 281, 301 or 321, 633 *and* 634.
Recommended Psychology Electives: PSY 221, 291, 431.
Other Recommended Courses: EDU 201, EDU 231, CJS 201 (formerly SOC 201).

*Clinical/Counseling Psychology Track:*
Recommended Major Requirement Options: PSY 281, 301, 637 *and* 638.
Recommended Psychology Electives: PSY 275, 401, 421. Students interested in working with children should also take PSY 221, 431; Students interested in working primarily with adults should also take PSY 291, 212 or 321.
Other Recommended Courses: CJS 102 (formerly SOC 102), EDU 231, CJS 201 (formerly SOC 201), PSY/NS 341.

*Social/Organizational Psychology Track:*
Recommended Major Requirement Options: PSY 321, 351, 635 *and* 636.
Recommended Psychology Electives: PSY 212, 213, 241 and 301.
Other Recommended Courses: ACC 201, BA 140, SOC 305.

**Research/General Psychology Track:**
Recommended Major Requirement Options: PSY 281 or 351, 321, 635 and 636 or 639 and 640.
Recommended Psychology Electives: PSY 341, 315.

An understanding of computer-human interactions and advanced technologies may be essential for students entering the work force or graduate/professional programs. Therefore, we recommend that students choose at least one class from the following computer science courses: CS 102, 103, 104, 204, 221 OR 310.

**The Psychology–Pre-Occupational Therapy Program:** Students in this program complete a major in psychology (a minimum of 44 hours, not including support courses) and a concentration in pre-occupational therapy (28 semester hours). Upon completion of major requirements, students are eligible for admission, upon acceptance, to the Master of Occupational Therapy program at Duquesne University. Students must maintain a GPA of 3.0 to matriculate to the Duquesne program, and a C or better in all courses. In this program students begin residence at Duquesne University in the spring of their senior year and must complete a semester of study there so that their hours equal 128 at graduation.

**Psychology Courses:**

- Introduction to General Psychology (PSY 101),
- Statistical Methods and Analysis (PSY 201)
- Childhood and Adolescence (PSY 221)
- Adulthood and Aging (PSY 291)
- A minimum of one course from the following:
  - Developmental Psychopathology (PSY 431)
  - Organizational Psychology (PSY 241)
  - Abnormal Psychology (PSY 401)
- A minimum of one course from the following:
  - Principles of Learning and Memory (PSY 281)
  - Cognition (PSY 351)
- Psychological Assessment (PSY 301)
- Behavioral Neuroscience (PSY/NS 341)
- Four hours of internship experiences with Duquesne consultancy (PSY 590)
- Senior Research with Duquesne consultancy
- Psychology Capstone: Senior Studies I & II (PSY 601, 602 – 2 semester hours each) and
- Research I & II (PSY 631-640; 2 semester hours each)
- OR
- Honors Research (PSY 670-690; minimum of 8 semester hours)

Pre-Occupational Therapy Concentration (required Westminster support courses):
BIO 201, 202, 335 and 336; MTH 131 or approved alternative; PHI 240 (or equivalent); PHY 141 (all science coursework must be taken at an approved four-year college)

Required Non-Westminster Courses (These are proficiency courses offered and must be completed prior to completion of the B.A. degree. They do not earn Westminster credit.):

- Foundations/Fundamentals of Occupational Therapy (offered through Duquesne)
- Medical Terminology

**The Minor in Psychology:** The minor consists of 24 hours in psychology and consists of Introduction to Psychology (PSY 101); Statistical Methods and Analysis (PSY 201); and four electives, one of which must be numbered 300 or above.

**Interdisciplinary Major Programs:** The Department of Psychology participates with other departments in two established interdisciplinary majors. Psychology–Human Resources is offered in conjunction with economics and business (see following listing). Neuroscience is offered in conjunction primarily with biology (see p. 135).

**Interdisciplinary Minor:** Childhood development is offered in conjunction with the education department. Coordinators are Mandy B. Medvin (psychology) and Amy Camardese (education).

This minor serves to strengthen the developmental background of those students interested in working with children. This course of study will advantage students interested in the areas of elementary education, guidance counseling, special education, and social work. Psychology majors may not take the minor, but are encouraged to take other courses as indicated under the developmental track in psychology.

**Requirements:** A student must complete the following prescribed curriculum (24 semester hours). The prescribed set of courses are: PSY 101, 219 or 221, 431, 281, 231; SED 201; ELL 206; EDU 572; (students must have a 2.500 minimum grade point average and a minimum of 10 semester hours in psychology or education prior to doing the Field Experience).

**Psychology—Human Resources**
Degree Offered: Bachelor of Science  
Major Program: Psychology—Human Resources

The Psychology-Human Resources major enables students to apply psychological concepts, theories, and methods to organizational processes, with an emphasis on human resources functions. With a solid course background in psychology, business, and related disciplines, students in this major will be prepared to assess and explain organizational phenomena from multiple disciplinary lenses; to understand the importance of various technologies for and their effects on human resources functions, to develop an awareness of multicultural and global issues that relate to organizational behavior; to enter a graduate program in human resource management, organizational psychology, or the workforce. This major will prepare students for graduate work in human resource management or organizational psychology programs, and is equally appropriate for graduates seeking direct employment in human resources functions such as: worker selection, worker evaluation and career development, benefits administration, human relations, training, employment law, and program and institutional evaluation. Business and psychology elements have been chosen to start the undergraduate in a very strong quantitative and research approach to human resources essential in applied organizational problem solving.

*Requirements:* A student must complete the following prescribed curriculum (64 semester hours). The prescribed set of courses is:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACC 201</td>
<td>Principles of Accounting</td>
</tr>
<tr>
<td>BA 140</td>
<td>American Workplace</td>
</tr>
<tr>
<td>BA 360</td>
<td>Human Resources</td>
</tr>
<tr>
<td>BA 361</td>
<td>Compensation/Benefit</td>
</tr>
<tr>
<td>ECO 150</td>
<td>Economic Reasoning or ECO 152 The Macroeconomy</td>
</tr>
<tr>
<td>PSY 101</td>
<td>Introduction</td>
</tr>
<tr>
<td>PSY 201</td>
<td>Statistical Methods and Analysis</td>
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<tr>
<td>PSY 241</td>
<td>Organizational</td>
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<tr>
<td>PSY 301</td>
<td>Assessment</td>
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<tr>
<td>PSY 321</td>
<td>Social</td>
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<tr>
<td>PSY 351</td>
<td>Cognition</td>
</tr>
<tr>
<td>PSY 590 or</td>
<td>Internship in Human Resources</td>
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<tr>
<td>BA 590</td>
<td></td>
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<tr>
<td>PSY 601</td>
<td>Psychology Capstone: Senior Studies I (2 semester hours)</td>
</tr>
<tr>
<td>PSY 602</td>
<td>Psychology Capstone: Senior Studies II (2 semester hours)</td>
</tr>
<tr>
<td>PSY 635-640</td>
<td>Research Seminars (2-semester-hour courses taken simultaneously with 601 and 602)</td>
</tr>
</tbody>
</table>

All qualified students are encouraged to complete the senior studies requirement at the Honors level or to consider the Research Scholars Program.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>MTH 131</td>
<td>Applied Calculus or approved alternative</td>
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</tbody>
</table>

One additional course from the following:

Recommended:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>BA 362</td>
<td>Employment and Labor Law</td>
</tr>
</tbody>
</table>
OR one of the following:

- BA 220 Statistics
- BA 230 Business Law
- BA 305 Marketing

**NOTE:** All students are required to present their theses during the Spring Semester of their senior year at a regional undergraduate research conference or appropriate professional conference.

For more information, contact Dr. McMinn (psychology), Dr. Cushman (business and economics).

### Quantitative Economics

This program, sponsored by the Department of Economics and Business, integrates courses from economics and mathematics. It addresses the increasingly quantitative nature of economics and should be of particular interest to economics students interested in pursuing graduate work and to mathematics students interested in the applied areas of their discipline. Program coordinator, Dr. Dan Fischmar.

*Requirements:* The major comprises 64 semester hours consisting of the following courses: ACC 201 and 202; CS 151; BA/ECO 220 or MTH 335; MTH 150, 152, 250, 261, 321, 341; ECO 150, 152, 310, 320, 601, and one other 300-level economics course. Students must earn a GPA of at least 2.000 in these courses with no grade lower than C-.

### Religion, History, Philosophy, and Classics

**Professors:** A. Dwight Castro (Classics), Russell E. Martin (History), Bryan S. Rennie (Religion), David C. Twining (History)

**Associate Professors:** Patricia G. Clark (History), Timothy Cuff (History), Beverly W. Cushman (Christian Education, Religion)*, David W. Goldberg (Philosophy), Kang-Yup Na (Religion)

**Visiting Assistant Professor:** Michael Bowen (History)

**Chair:** Dr. Rennie

**Degree Offered:** Bachelor of Arts

**Major Programs:** Christian Education, History, Latin, Philosophy, Religion

**Minor Programs:** Christian Education, Greek, History, Latin, Philosophy, Religion

**Teacher Certification:** Latin, Social Studies

The Department of Religion, History, Philosophy, and Classics brings together four of the central disciplines of the Humanities, each of which provides important insights into the nature of human experience. Although separate major programs are maintained in each of the component disciplines, the combination into a single department affords greater opportunities to explore the connections between the individual disciplines and to create exciting and relevant interdisciplinary courses.

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*On Sabbatical during Fall 2012*
as well as to develop new interdisciplinary concentrations that draw on the varied expertise of the departmental faculty, many of whom have the academic training, background, and experience to teach courses in more than one of the component disciplines.

The special emphases of the department’s component disciplines and the requirements for the various majors and minors are described below, in the order in which the disciplines appear in the departmental name.

**Religion and Christian Education**

The purpose of Westminster College, a church-related institution, is the offering of a faith-informed liberal arts education. Given this heritage, the goals of the courses in Christian education and religion are to enable students

- to understand and appreciate faith traditions in all their variety
- to participate in the dialogue between and among people of various faiths
- to understand the relationships between the religious and other dimensions of human existence
- to deepen their own faith commitments, whatever they may be
- to act in informed and compassionate ways that sustain and enrich global community.

An understanding of religion in its various forms has value for the study of the other liberal arts areas.

Students anticipating graduate study in a seminary or university will find a sound foundation in courses in Christian education, religion, and philosophy (as well as in the other component disciplines of the department). See below for more information.

**REQUIREMENTS FOR THE MAJOR IN CHRISTIAN EDUCATION**

**Requirements for Certification by the Association of Presbyterian Church Educators, PC(USA):** A major in Christian education for certification by the PC(USA) requires 24 semester hours of courses designated Christian education (CHED) and 36 semester hours of courses designated religion (REL) for a total of 60 semester hours distributed as follows:

- All of the following: CHED 101, 201, 202, 203, 301, and REL 601*
  - REL 102, 106, 107, 111, 212, 213, 301
- Two of the following: REL 201, 202, 207, 209

Students are placed in a local ministry setting where they receive hands-on experience and personal mentoring.

**Requirements for the non-certification Christian Education major:** A non-certification Christian education major requires 24 semester hours of courses designated Christian education (CHED) and 28 semester hours of courses designated
religion (REL) for a total of 52 semester hours distributed as follows:

- All of the following: CHED 101, 201, 202, 203, 301, and REL 601*
  REL 102, 106, 107, 111, 301
- Two of the following: REL 201, 202, 207, 209

Students are placed in a local ministry setting where they receive hands-on experience and personal mentoring.

**Requirements for the Minor in Christian Education:** A minor in Christian education requires 12 semester hours of courses designated Christian education (CHED) and 12 semester hours of courses designated religion (REL) for a total of 24 semester hours.

- All of the following: CHED 101; REL 101
- Two of the following: CHED 201, 202, 203
- Two of the following: REL 102, 111, 201, 202, 207, 209

**REQUIREMENTS FOR THE MAJOR IN RELIGION**

Within the religion major there are two programs: the Christian traditions concentration and the world religion concentration. A major in religion requires the number of semester hours specified below for each of these programs.

**The Christian Traditions concentration:** 48 semester hours in religion courses, distributed as follows:

- All of the following: 102, 106, 107, 111, 301, and 601*
  * Majors enrolled in the All-College Honors Program will substitute courses numbered 660 and higher (totaling at least 4 semester hours) for 601.
- Two of the following: 201, 202, 205
- Two of the following: 206, 207, 208, 209
- One of the following: 211, 212, 221, 222
- One religion elective (totaling 4 semester hours)

**The World Religion concentration:** A minimum of 44 semester hours in religion courses, distributed as follows:

- All of the following: 111, 116, 117, 118, 311, and 601*
  * Majors enrolled in the All-College Honors Program will substitute courses numbered 660 and higher (totaling at least 4 semester hours) for 601.
- One of the following: 101, 106, 107
- One of the following: 119, 121, 122
- One of the following: 221, 222, 312
- Two religion electives (totaling 8 semester hours)

**Requirements for the Minor in Religion:** A minor in religion requires 24 semester hours of religion courses, including 111 and five additional religion courses, distributed as follows:
• One of the following: 101, 106, 107, 201, 207, 208, 209
• One of the following: 102, 211, 212
• One of the following: 116, 117, 118, 119
• Two religion electives (totaling 8 semester hours), at least one of which must be numbered 201 or higher.

Seminary Preparation: Students who plan to attend a seminary should take courses that are broad in scope and provide an appropriate foundation for seminary studies. Therefore, in addition to courses in Christian education and religion, students should consider taking GR 101, 102, 201 and 251 (see Classics on p. 153), as well as courses in one or more of the following disciplines: the world religions concentration, philosophy, history, literature, psychology, speech, sociology.

History

The program in history is designed to assist all students to develop an understanding of the varied eras of humankind’s social and cultural heritage. As a major, history prepares students to teach social studies, to attend graduate school, to pursue advanced degrees in history or related fields, or to pursue careers in numerous other fields where the skills of an historian are useful. The history major is also frequently used as a preparation for professional training in law, library science, or the ordained ministry.

Requirements for the Major in History: A major in history requires 48 semester hours in history courses, distributed as follows:

• All of the following (core courses): 101, 102, 410, 420, and 601*
  * Majors enrolled in the All-College Honors Program will substitute a course numbered 660 or higher (totaling at least 4 semester hours) for 601.
• Two of the following (U.S. history): 105, 106, 210, 221, 223, 229*
  * History majors seeking secondary education teacher certification must include 210 as one of the two courses in this distribution.
• One of the following (non-western history): 251, 252, 253, 261, 262, 271, 272, 281, 282
• One of the following (special topics seminar): Any course numbered 301-320
• One of the following (internship): 594 (4 semester hours)*; or two semesters of 592 (2 semester hours each)*
  * For history majors seeking secondary education teacher certification, student teaching (EDU 452) will substitute for HIS 594 in this distribution.
• Two history electives (totaling 8 semester hours)

In fulfilling the above distributions, history majors must select courses that concurrently fulfill a chronological distribution consisting of one course (four semester hours) whose content is primarily focused on each of the following periods:
For majors who are not seeking secondary education certification, there are no additional supporting courses required from other disciplines. For majors who are seeking secondary education certification, the required supporting courses from other disciplines are listed below (see Requirements for Secondary Education Teacher Certification).

Requirements for the Minor in History: A minor in history requires 24 semester hours in history courses, distributed as follows:

- One of the following (western European history): 232, 233, 235, 240, 241, 242, 243, 245, 246
- One of the following (U.S. history): 105, 106, 210, 221, 223, 229
- One of the following (non-western history): 251, 252, 253, 261, 262, 271, 272, 281, 282
- One of the following (special topics seminar): Any course numbered 301-320
- Two history electives (totaling 8 semester hours)

Requirements for Secondary Education Teacher Certification: Students who desire secondary education teacher certification in social studies with a major in history must successfully complete all requirements for the major as described above, plus the following supporting courses: ECO 150, GEO 101, PS 102, PS 104, and either SOC 101 or SOC 105. They must also complete all the requirements for a minor in secondary education (see p. 103).

Students who are interested in secondary education should contact the chair of the Department of Education as soon as possible for complete information. If all requirements are to be completed in four years, careful planning in both the major field and in the minor is essential.

All-College Honors: The department encourages eligible history majors to pursue entrance into the All-College Honors Program (see p. 61).

Philosophy

Philosophy, a critical and reflective discipline, fosters transferable skills applicable to most careers, fields of study, and personal endeavors. Philosophy may be teamed with virtually any other major in order to add depth and breadth to another discipline. Historically the most fundamental of the liberal arts, philosophy develops perspective, critical and creative thinking, rational standards of discourse, and sensitivity to value issues. Philosophy develops the individual’s sense of meaning and encourages the building of a coherent personal world-view.

Requirements for the Major in Philosophy: A major in philosophy requires a minimum of 40 semester hours in philosophy courses, distributed as follows:
• All of the following: 101, 102, 401, and 601*
  * Majors enrolled in the All-College Honors Program will substitute a course numbered 660 or higher (totaling at least 4 semester hours) for 601.
• Two History of Philosophy courses (200-209)
• Two Topics in Philosophy courses (210-229)
• One Ethics course (230-259)
• One or more philosophy electives (totaling at least 4 semester hours)

Philosophy majors must take at least four other philosophy courses before taking 401, and normally take 401 before taking either 601 or courses numbered 660 or higher.

Courses from other disciplines that are recommended to students taking the major in philosophy are PS 221 or 323 and one course each in psychology, sociology, and history. Philosophy majors will also find it helpful to acquire a working knowledge of any of the following languages: Latin, Ancient Greek, French or German.

Students majoring in philosophy may choose to double major in almost any discipline from the humanities, natural sciences, or social sciences and to enter the All-College Honors Program. Pre-law, pre-medical, and pre-seminary students may find the philosophy major or minor especially useful. The critical thinking skills in which philosophers excel are receiving increasing recognition among today’s employers as a valuable asset in the ever more complex business and professional worlds.

**Requirements for the Minor in Philosophy:** A minor in philosophy requires 24 semester hours in philosophy courses, distributed as follows:

• Both of the following: 101 and 102
• One History of Philosophy course (200-209)
• One Topics in Philosophy courses (210-229)
• One Ethics course (230-259)
• One or more philosophy electives (totaling at least 4 semester hours)

Students minoring in philosophy must take at least four other philosophy courses before taking 401.

A minor in philosophy enhances almost any major by adding depth and breadth to a degree only somewhat less than that of the major. A member of the philosophy faculty will help students select courses best suited to each person’s needs.

**Scheduling of Major or Minor:** Philosophy majors and minors should plan their schedules carefully, since some courses are offered only in alternate years. Ideally, students anticipating a major in philosophy should complete 101, 102, and one history or one topics course by the close of their sophomore year. A long-range course schedule should be discussed with the adviser as early as possible during the first year. A double major including philosophy, or a philosophy minor combined with another major, can usually be arranged, providing that careful planning occurs early in the student’s career.

**Classics (Ancient Greek and Latin)**
The program in classics is designed to teach the Ancient Greek and Latin languages and to help students appreciate the continuing influence that both these languages and the cultures they represent have on the modern world. The primary emphasis in the Greek courses is on the Koine dialect (the form in which the New Testament and much of early Christian literature was written); however, provision can be made for those students who desire to study the Attic dialect (the form in which most “Classical” Greek literature was written). The primary emphasis in the Latin courses is on the “Classical” form of that language (i.e., the form used for most of the extant Roman literature); however, provision can be made for students who desire to study Medieval (or “Ecclesiastical”) Latin (i.e., the form used for most sacred music texts).

As with the courses offered by the Department of Modern Languages, most classics courses are taught in the original languages, but a few are offered in English translation. The courses described under the specific language headings (Greek, Latin) are taught in the original languages. Of the courses taught in English, those dealing mainly with Greek and Roman history are listed under the “History” heading; those dealing mainly with Greek and Roman literature and with Greco-Roman culture in a broader sense carry the label “Comparative Literature and Culture.”

**Greek**

**Requirements for the Minor:** A minor in Greek requires a minimum of 24 semester hours in Greek courses. Greek courses at any level may count towards the minor. A major in Greek is not offered.

**Latin**

**Requirements for the Major:** A major in Latin requires a minimum of 36 semester hours in Latin courses, distributed as follows:

- All of the following: 301, 351, and 601*
  
  *Majors who are enrolled in the All-College Honors Program will substitute courses numbered 660 and higher (totaling at least four semester hours) for 601.
- Six or more Latin electives (totaling at least 24 semester hours)

A required supporting course is HIS 122. Latin majors are also strongly encouraged to take HIS 121.

**Requirements for the Minor:** A minor in Latin requires a minimum of 24 semester hours in Latin courses. Latin courses at any level may count towards the minor.

**Requirements for Secondary Education Teacher Certification.** If secondary teaching certification in Latin is desired, the major must include the following Latin courses: 301, 351, 594 (or two semesters of 592, for two semester hours each), and 601. A required supporting course is HIS 122. Students must also complete all requirements for a minor in secondary education (see p. 103).
All-College Honors: The department encourages eligible Latin majors to pursue entrance into the All-College Honors Program (see p. 61).

Sociology and Criminal Justice Studies

Professors: Kristin Park
Associate Professor: Gary D. Lilly
Assistant Professor: Kristenne M. Robison, Rena C. Zito
Chair: Dr. Park

Degree Offered: Bachelor of Arts
Major Programs: Sociology, Criminal Justice Studies
Interdisciplinary Programs: International Studies, Sociology and Modern Languages
Sociology Concentrations: Social Policy
Minor Programs: Sociology, Criminal Justice Studies

Sociology

Sociology is the scientific study of human behavior as interpreted and experienced in groups. These groups range from face-to-face interactions to institutions like the family and religious communities to societies experiencing widespread social change. Sociology’s emphasis on interaction and meaning makes us more aware of the motives behind our actions, as well as of their consequences. The department emphasizes multicultural perspectives and material to broaden the outlook of its majors.

The broadly based curriculum in the major allows the student to follow particular interests in depth, as well as to gain an overview of the discipline. The aim of the major is a general introduction to the dominant sociological theories, substantive areas, and methods of inquiry, with students acquiring competency in important analytical and technical skills.

The Major in Sociology: A major in sociology helps to prepare students for both further study and immediate employment. Work or study might be in sociology, law, social work, counseling, or other related areas.

Major: All Sociology majors must complete 44 semester hours as follows:

- SOC 101, 350, 601, 602 (or Honors equivalent)
- Five sociology or criminal justice studies electives, with at least two courses designated 200 level or above and one course designated 300 level or above. SOC 591-594 or CJS 591-594 may count as no higher than a 200 level elective.
- SSC 251, 252

Criminal Justice Studies
This major is for students interested in law, juvenile and adult corrections, law enforcement, correctional counseling and related areas. The major provides a sociology foundation with electives and an internship in various areas of criminology and criminal justice. Students learn about theories of the causes of crime and about the workings of the criminal justice system. They examine empirical data and study and evaluate policies. Our goal is for students to think sociologically and critically about public opinion, law and social institutions.

**All Criminal Justice Studies majors must complete 48 semester hours as follows:**

- SOC 101, 350, 601, 602 (or Honors equivalent)
- CJS 102, 201, 202 and 302 (preferably in this sequence)
- One sociology elective
- Internship in the area of criminal justice
- SSC 251, 252

**The Major in Sociology with a Social Policy concentration:** The social policy concentration helps to prepare students for careers in helping professions and public service. The course work encourages students to consider the “why?” and “how?” of social programs in the U.S. and other countries and promotes their critical evaluation.

**All Sociology majors with a Social Policy concentration must complete 56 semester hours as follows:**

- SOC 101, 350, 601, 602 (or Honors equivalent)
- SOC 108, 204, 305, and two of the following: SOC 210, 214, 327 or CJS 201
- SSC 251 and 252
- PS 241
- ACC 201
- Internship in the area of social policy

**The Minor in Sociology:** All sociology minors must complete 28 semester hours as follows:

- SOC 101 and 350
- Four electives in SOC or CJS, of which two must be at the 200 level or above
- SSC 251
- SOC 591–594 or CJS 591-594 may not be included in the minor

**The Minor in Criminal Justice Studies:** A minor in criminal justice studies shall consist of 28 semester hours in sociology and criminal justice studies as follows:

- SOC 101 and 350
- CJS 102, 201, 202 and 302
- SSC 251

Students may not major in sociology and minor in criminal justice studies or major in criminal justice studies and minor in sociology.
**The Minor in Gender Studies:** SOC 107 (cross-listed as GS 107) is required, plus five electives from courses approved as gender studies courses (see p. 110). Students with a sociology major or minor and a gender studies minor may have two cross listed (gender studies and sociology) courses count for requirements in both programs. Courses beyond the two will only count for one of the requirements.

Depending on their particular interests, we **recommend** the following courses to students majoring or minoring in sociology, criminal justice studies or sociology-social policy:

**Communication Studies:**
- COM 201 Interpersonal Communication
- COM 202 Small Group Communication
- COM 225 Communication Ethics

**History:**
- Survey courses in American or regional history or social history

**Political Science:**
- PS 101 Introduction to Political Science
- PS 214 The Courts
- PS 241 Public Policy

**Psychology:**
- PSY 101 Introduction to General Psychology
- PSY 213 Psychology of Prejudice
- PSY 221 Childhood and Adolescence
- PSY 291 Adulthood and Aging
- PSY 275 Forensic Psychology
- PSY 331 Psychology of Women

**Science:**
- SCI 150 Introduction to Forensic Science

**Interdisciplinary Program:** The department participates with the Department of Modern Languages in offering the international studies interdisciplinary major (see p. 111).

No grades below C- may be counted toward any requirement for the major or minor. Only one internship/field experience may be counted toward the minimum 44 semester hours in the major.

*See the most recent course listings on the Political Science and Sociology home page. Enrollment in 300-level courses requires a lower-level SOC or CJS course as prerequisite.*

Students must earn at least a C- in SOC 350 Social Theory and SSC 251 Research Methods for Social Science before they can enroll in the SOC 601 Sociology Capstone
I course. In addition, students must earn at least a C- in SSC 252 Data Analysis for Social Science before they can enroll in SOC 602 Sociology Capstone II.

Students in the Honors program take SOC or CJS 660-690 instead of SOC 601 and 602 Sociology Capstone I and II.
Courses of Instruction

Course Levels

In general, courses with the lowest numbers (100–199) are introductory in nature, and thus open to students who are not majors, while courses with the highest numbers (500 and up) are reserved for individualized study, and thus are normally open only to majors and minors. For courses with numbers 200–499 departmental patterns vary; consequently, students should check carefully the descriptions of individual courses to see what prerequisites and other restrictions (if any) apply.

Fall and Spring Semester Course Offerings

The specific courses (including times, locations, and instructors) which are offered each semester are listed in special schedules issued by the registrar. Although these are accurate at the time of publication, the College reserves the right to make subsequent changes as the need may arise.

Daily Class Schedule

During the Fall and Spring semesters, classes which carry four semester hours of credit normally meet either three days a week on a Monday–Wednesday–Friday sequence, or two days a week on a Tuesday–Thursday sequence. During the Summer Session, day courses which carry four semester hours of credit normally meet daily Monday through Friday. Summer Session evening courses which carry four semester hours of credit normally meet two evenings a week.

Summer Course Offerings

Summer Session at Westminster College is designed to offer a sampling of courses from the Westminster Plan. Courses are taught by Westminster faculty and closely parallel the content and structure of those taught during the traditional academic year. Students may take a maximum of two courses during summer session. All Summer Session students have the option of taking day or evening courses with no difference in tuition. During Summer Session students will not be able to “audit” any courses.

All courses are four semester hours (SH) unless noted.
ACCOUNTING

ACC 201, 202 Principles of Accounting I and II (4 SH). A two-semester study of the basic principles and concepts underlying the measurement of financial activity, and the preparation and use of financial statements. Among the topics will be basic accounting theory, transaction analyses, income determination, asset and liability valuation. The second semester will be a continuation of the basic accounting concepts, plus issues that relate to the financial management of a company, cost behavior, cost control, capital budgeting and profit planning. Prerequisite: ACC 201 for ACC 202.

ACC 300 Cost Accounting (4 SH). Development and use of financial information for management purposes. Coverage includes cost determination, analysis and control, budgeting, decision making, and performance evaluation. Prerequisites: ACC 201, ACC 202 and MTH 131. (Also listed as BA 300.)

ACC 305, 306 Intermediate Accounting I and II (4 SH). A two-semester advanced study of accounting principles as they relate to the preparation, form, content and decision usefulness of financial statements. Selected topics include the conceptual framework of accounting, current professional pronouncements, revenue recognition, income determination and presentation, asset valuation and measurement, liability and equity reporting and financial statement analysis. Prerequisites: ACC 201 and ACC 202 for ACC 305, and ACC 305 for ACC 306.

ACC 310 Federal Income Taxation (4 SH). A study of the current federal income tax law as it pertains to individual taxpayers, including their interaction with sole proprietorships. The concept of taxable income is developed. Tax planning and tax determination within the provisions of the law are covered. Prerequisites: ACC 201 and ACC 202.

ACC 320 Corporation and Partnership Taxation (4 SH). A study of the principles of taxation pertaining to corporations, partnerships, and related entities. Emphasis is placed on the impact of taxation on business transactions and its role in planning and decision making. Prerequisite: ACC 301.

ACC 350 Advanced Accounting (4 SH). A course presenting accounting principles and problems as they relate to partnerships, home office and branch accounting, business mergers, consolidations, governmental, and not-for-profit organizations. Prerequisite: ACC 306.

ACC 410 Auditing (4 SH). A study of auditing objectives, standards, and procedures employed in the examination of business enterprises and verification of their financial statements. This course includes an evaluation of internal control, preparation of work papers, report writing, professional ethics, and current auditing trends. Prerequisite: ACC 306.

ACC 590-594 Field Experience/Internship (1–4 SH). Not counted in the minimum number of courses needed in the major. All grading S/U. Prerequisites: six courses in accounting, economics and/or business, junior or senior standing, consent of department, and a GPA of at least 2.0.

ACC 601 Auditing II – Emerging Issues in Financial Reporting & Auditing (4 SH). A study of regulatory concepts, statements, and opinions regarding the measurement and presentation of financial information. Issues related to the practice of professional accounting will be explored through research and presentations. Serves as the capstone for the accounting major. Prerequisite: ACC 410.

ACC 610, 611 Seminar/Advanced Topics (1–4 SH). A study of relevant topics and techniques pertaining to the current business and economics environment. Solution processes and problem defining are stressed.

ACC 620-624 Independent Study (1–4 SH). Prerequisites: six courses in economics and/or business with at least a 3.250, junior or senior standing, and consent of department.

ACC 660, 670, 680, 690 Honors Project (1–4 SH). (See p. 61.)
ART

ART 101 Basic Studio Art 2D (4 SH). An introductory course to examine the principles of two-dimensional design. Project assignments explore the elements of art: line, shape, value, texture, and color. The student will focus on the interaction of these elements to yield coherent organizational principles, spatial illusion, and integrated compositional units.

ART 102 Foundation Drawing (4 SH). A basic course for all students that covers the fundamentals of composition, exploring a variety of media. Students will be taught a “visual grammar”—how to translate what they see through the language of drawing. A wide range of techniques are introduced.

ART 104 Beginning Oil Painting (4 SH). This is a fundamental course in the production of oil paintings; technical and creative skills are given equal emphasis. Color theory, composition and self-expression are areas covered. Related areas in art history and aesthetics are introduced.

ART 105 Art and Nature (4 SH). This course takes an in-depth look at the natural world through art. Students explore a variety of subjects from butterflies to birds; seedpods to sea shells; the microscopic to the expanse of landscapes. Content and themes ranging from more scientific to the artistic. Primary techniques are basic drawing and painting using simple and portable materials. The course revolves around the creation of a field journal/sketchbook. More involved projects spin off assignments from the sketchbook. Students can expect to work on location/campus and at the biology department’s Field Station and Nature Trail. Our studio is the great outdoors.

ART 106 Handbuilding Ceramics (4 SH). An introductory course concentrating on handbuilding techniques: coil, slab, press mold, and drape mold. Problem-solving assignments range from functional pottery to abstract sculptural pieces. Masterworks are studied for a greater appreciation and understanding of ceramic history.

ART 107 Worlds of Art: Ideas and Images (4 SH). An introductory course in art production, ideas and issues. This course will provide a cross-cultural approach to the study of how and why humanity creates through visual forms. Students will explore current issues such as censorship in art to issues of art production. Studies in the basic language of art production and criticism will establish a framework for explorations in art and religion, camera arts, art and technology, art production and more. Guest speakers and visiting artists will also provide valuable input and expand the exposure to the Worlds of Art.

ART 108 Landscape Painting (4 SH). This is a course dedicated to landscape painting. Themes include those of the 20th century and the evolution of nature in art from realism to symbolism. Students will work from a variety of source imagery and explore selected styles.

ART 110 Development of World Art, Part 1: Prehistoric—Middle Ages (4 SH). This course will cover periods of art history beginning with prehistoric, including major developments in painting, sculpture, and architecture. It will conclude with the Middle Ages. Students will be introduced to a wide variety of artists, art forms and sociological influences of each period.

ART 200 Basic Studio Art 3D (4 SH). An introductory class for students to explore the physical and visual properties of three-dimensional form. The studio experience emphasizes formal analysis and three-dimensional design processes, using diverse materials, to study concepts of structure, organization, and aesthetics.

ART 201 Waterbased Painting (4 SH). A studio course in either acrylic or watercolors as designated by the instructor. Elements of design, techniques and related historical and aesthetic issues will be covered. Students will develop critical and problem-solving skills through a visual language. This course can encompass all levels of skills.
ART 202 Wheel-throwing Ceramics (4 SH). An introductory course emphasizing throwing skills on the potter’s wheel. Assignments include mugs, casseroles, lidded jars, bowls, and teapots. Three-dimensional design problems are stressed, and glazing and kiln firing procedures and techniques are taught.

ART 204 Drawing—Media and Expression (4 SH). A course that will explore the expressive potential of drawing. Contemporary drawing involves a wide range of mixed media that include collage, frottage, paint, traditional drawing methods, color, and some three-dimensional components. Students will be asked to explore a wide range of topics that include dreams, social, cultural, political, and environmental themes. This course is open to all skill levels.

ART 208 Intro to Sculpture (4 SH). This course is an introduction to utilizing sculpture as a three-dimensional vehicle for creative expression. The physical, spatial, and thematic properties of sculptural media are addressed through course projects. A range of materials and processes will be utilized in the course and may include wood, plaster, wax, metal, fabric, found materials, casting, site-specific, and installation. The course is designed for all skill levels.

ART 210 Development of World Art Part II: Renaissance to Early Modern (4 SH). This course will cover periods in art history beginning with early Renaissance, including major developments in painting, sculpture, architecture and it will conclude at mid-20th century. Students will be introduced to a wide range of art forms and explore the relationship of art relative to society and culture. Arts of the Far East and the Americas will be included within the context of how they were affected by and how they affected western art production.

ART 211 Who Am I: Search for Identity in Visual Arts (4 SH). This course will focus upon studio art to explore a variety of themes related to discovering “the self.” A variety of mixed media and techniques will be used to create art forms that reflect the student’s ideas about assigned topics related to self-awareness within various contexts. Occasionally offered as a cluster course with ENG 105. Check current course listings for CL designation prior to enrollment.

ART 218 Contemporary Crafts (4 SH). This course explores the rich history of craft mediums and processes within a contemporary context. Thematic projects will address the social, cultural, and historical significance of craft. A variety of craft media will be utilized and may include paper, wood, fiber, jewelry, bookmaking, and mixed media. The course is designed for all skill levels.

ART 250 Digital Art Studio (4 SH). This course is a hybrid of traditional art methods and computer manipulated images. Students will create paintings, drawings, and collages that are enhanced with digital editing software. Reversing the process...students begin with a computer generated image/photo and continue to work on it with collage and traditional materials. Students will learn basics of studio art, Photoshop and Elements software, scanning and digital printing to create most unusual and exciting art.

ART 300 Wild Color: Fiber Arts and Natural Dyes (4 SH). A course about eco-color and fiber arts. Students will research, harvest, and create botanical dyes from regional plants. The first half of the semester will be about making dyes, dyeing different fibers, and experimenting with safe mordants. There will be a segment on surface design using your dyes. The second half of the semester will be focused upon creating artwork from the dyed fibers/materials. Methods include, but are not limited to, basic felting, simple frame weaving, and fabric constructions. Topics to be introduced throughout the semester include: basic design and color theory, the history of textiles and dyes, and related environmental issues.

ART 303 Advanced Studies I (4 SH). Courses of study that are taken concurrently with regular studio courses, but structured for advanced levels. Students may select media for further study, but must first exhaust all related course offerings in that media that are taught at Westminster College.
Course work will be structured by the supervising instructor and emphasis will be upon conceptual and technical development within the given medium. Permission of instructor is required prior to registration for the course. Course work is to be organized by the instructor and executed during regularly scheduled courses in the same area. 3.000 GPA in major. Art majors only.

**ART 304 Advanced Studies II (4 SH).** Courses of study that are taken concurrently with regular studio courses, but structured for advanced levels. Students may select media for further study, but must first exhaust all related course offerings in that media that are taught at Westminster College. Course work will be structured by the supervising instructor and emphasis will be upon conceptual and technical development within the given medium. Prerequisites: ART 303 and permission of instructor prior to registration.

**ART 590-594 Internships (2-4 SH).** Students must have completed their spring sophomore semester and have a 3.0 average in the major as well as college GPA. All internships must be approved by the faculty PRIOR to enrolling in the course. No internships will be approved for the fall term of senior year. The course will be graded S/U and carry a minimum of 80 hours of work.

**ART 601 Capstone: Studio Project (2 SH).** Art majors must propose a studio project to the art faculty. The proposal will be written description and sample of the studio project. This will be completed by April of the junior year, approved by all art faculty before fall term of the senior year. Projects may be revised with faculty approval. In some cases, faculty may assign topics and media. Fall term will consist of studio production. Students will be assigned a faculty mentor specific to their selected media. Faculty and student will be on a weekly basis for critiques. Group critiques with all majors and faculty will take place at least twice in the semester. A minimum grade of C must be earned before continuing to Art 602. There are no incompletes for Art 601 or 602. Prerequisite: Completion of two courses in a similar or related media offered at Westminster College. GPA of 2.5 in the major to enroll in Art 601. Offered Fall Semester.

**ART 602 Capstone: Exhibit and Portfolio (2 SH).** Students will prepare and present their work in an exhibit organized by the gallery director who will provide exhibition criteria. Portfolio development will be a component of this course. Prerequisite: Art 601. Offered Spring Semester.

**ART 620 Independent Studies (1-4 SH).** Student must be an art major or minor and carry a 3.0 GPA in the major. After exhausting options in a given media and in Advanced Studies I & II, students may continue a focused study through independent work approved and supervised by an art faculty member prior to enrollment in the course. Art faculty will determine grading criteria and develop a syllabus with the student.

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**BUSINESS ADMINISTRATION**

**BA 140 The American Workplace (4 SH).** An introduction to the nature of work and organizations. The course will explore the functions of managers in work environments, and the issues that shape contemporary management such as global competition and information technology. This course cannot be taken for credit if you have received credit for BA 310 (or are currently enrolled). This course is not open to junior or seniors except by permission.

**BA 160 Personal Financial Decisions (4 SH).** An introductory course on the basics of financial decision making and personal finance. Topics will include basic accounting concepts, investment alternatives, budgeting, and the nature of risk and insurance. This course does not carry credit for any major in the Department of Economics and Business. Sophomore standing is recommended.

**BA 220 Statistics (4 SH).** An introductory course in the analysis and interpretation of quantitative data. Attention is given to the binomial distribution, the normal distribution, sampling, introductory probability theory, and hypothesis testing. Real world applications are used with computer software
for statistical analysis. Not available to students with credit in BIO 206, MTH 335, PSY 201, PS 301, SSC 251, or SSC 252. Prerequisite: MTH 130 or 131 (or concurrent enrollment in MTH 131). (Also listed as ECO 220.)

**BA 221 Business Research Methods (4 SH).** A course in the commonly used statistical methods. Broad coverage is given to research design and hypothesis testing. Included are chi-square test of independence, analysis of variance, multiple regression and correlation analysis, and non-parametric statistics. Applications are used with computer software for statistical analysis. Prerequisites: BA/ECO 220 (or equivalent) and MTH 131.

**BA 230 Business Law (4 SH).** A study of law as it pertains to business. Legal principles pertaining to a variety of topics, including the Uniform Commercial Code, will be presented and applied to business entities. Text and case study will emphasize legal reasoning processes.

**BA 231 Law and Public Communication (4 SH).** An introduction to the legal issues surrounding public communication and business promotion. This course explores the legal and philosophical foundations of freedom of speech and the legal implications of recent changes in media systems and services related to the communications and business professions.

**BA 240 New Business Venture Creation and Management (4 SH).** This course addresses theory and practice fundamental to launching a new business venture. Students will be introduced to the nature of entrepreneurship, opportunity analysis, entry strategy, and financing and marketing problems related to business start-ups in the formative years. Each student will prepare and defend a comprehensive business plan commonly used in attracting investor interest and financing. Prerequisites: BA 140 and ECO 150.

**BA 300 Cost Accounting (4 SH).** Development and use of financial information for management purposes. Coverage includes cost determination, analysis and control, budgeting, decision making, and performance evaluation. Prerequisites: ACC 201, ACC 202 and MTH 131. (Also listed as ACC 300.)

**BA 305 Marketing (4 SH).** A study of the process by which products or services are brought to targeted consumers. The discussion includes consumer behavior, formation of a marketing plan and strategy, and marketing ethics. The approach is from the position of a business; however, consumer issues and concerns will also be discussed. Prerequisites: BA 140 or PR 101 or ECO 150.

**BA 310 Organizations and Management (4 SH).** A course that studies the behavior of people in a work organization. Topics include motivation, leadership, group processes, job and organizational design, communications, effectiveness and ethics in the workplace. Prerequisites: ECO 150 and junior standing.

**BA 325 Management Information Systems (4 SH).** The course provides a basic understanding of how organizations develop, use, manage, and secure their information systems. The course examines the impact of information systems at the strategic and operational levels of an organization. Key system applications, such as electronic commerce and enterprise information systems, are examined as well as the technological infrastructure that supports them. Prerequisites: ACC 201, ACC 202, BA/ECO 220 (or equivalent), and MTH 131.

**BA 326 E-Commerce (4 SH).** The course examines fundamental areas of e-commerce: the economic and strategic implications of the Internet; the uses of Internet technology to manage and redesign a business’s value chain; financing and valuing e-commerce organizations; the economic, regulatory and technical environment of e-commerce; risk management issues associated with e-commerce. A number of case studies will be employed to illustrate the principles discussed. Prerequisites: BA 140 and ECO 150.
BA 330 Econometrics (4 SH). Introduction to econometric modeling; estimation and testing economic relationships, forecasting; detailed analysis of classical linear regression models; discussion of serial correlation, collinearity, specification errors, and dummy variables. Popular computer software packages are used in real world applications. Prerequisites: ECO 150, two other ECO courses (except ECO 220), MTH 131, and BA/ECO 220 (or equivalent). (Also listed as ECO 601.)

BA 350 Finance (4 SH). A study of the financial principles involved in operating a business enterprise. Topics include asset management, creditor relationships, owners’ equities, budgeting for future capital needs and cash requirements, and the management of income and expenses. Prerequisites: ECO 150, ACC 201, ACC 202, BA/ECO 220 (or equivalent), and MTH 131. (Also listed as ECO 601.)

BA 360 Human Resources Management (4 SH). A study of activities necessary for the recruitment, retention, development, and motivation of an organization’s human resources. The course covers typical personnel functions as well as theory on human behavior in organizational settings. Prerequisite: BA 140 or consent of instructor.

BA 361 Compensation and Benefits (4 SH). An examination of financial reward systems in organizations and the study of relevant theoretical and legal perspectives. Topics will include job evaluation, wage surveys, equity, individual and group motivational programs, benefits, and compensation strategies. Prerequisites: ECO 150, ACC 201, and BA 360.

BA 362 Employment and Labor Law (4 SH). Examines the development and current operations of labor unions, the process and outcomes of collective bargaining and the impact on society and businesses, and law regarding workplace rights. Practical insights from National Labor Relations Board rulings and grievance cases will be addressed. Prerequisites: ECO 150, BA 360.

BA 365 International Trade and Finance (4 SH). An introduction to theories and policies concerning international trade, open economy macroeconomics, and international finance. Topics include traditional and modern theories of international trade, trade policies in advanced and developing countries, the balance of payments, fixed and flexible exchange rates, arbitrage and hedging, monetary and fiscal policies, currency areas, international debt, and the global capital market. Prerequisite: ECO 150. (Also listed as ECO 365.)

BA 371 Management of Healthcare Organizations (4 SH). A review of changing influences on the variety of sectors in American healthcare provision, organization, and financing. Issues concerning public and private insurance are included. Prerequisite: junior standing.

BA 380 Investments (4 SH). A course which presents a realistic picture of investment problems and the means for their successful solution. Description of the basic investment instruments is provided. Prerequisites: ACC 201 and ACC 202. BA 350 is strongly recommended.

BA 385 Financial Economics (4 SH). The course presents the Black-Scholes theory of options, futures markets, the time value of money, the rate of return on investment, cash flow sequence, utility functions, expected utility maximization, mean-variance analysis, value at risk, optimal portfolios, and the capital asset pricing model. Prerequisites: ECO 150 and BA/ECO 220 (or equivalent). (Also listed as ECO 385.)

BA 390 Buyer Behavior (4 SH). Study of major theories of consumer and industrial buying behavior, consumerism, and the ethics of marketing. Prerequisites: BA 220 and 305.

BA 410 Global Marketing Management (4 SH). An introduction to the complexities of marketing goods and services to international consumers. The environment of international marketing will be addressed from conceptual and applied perspectives. Topics include the various economic, social, political and legal dimensions confronted in international marketing. Prerequisites: junior standing and BA 305.
BA 590-594 Field Experience/Internship (1–4 SH). Will not be counted in the minimum number of courses needed in the major. All grading S/U. Prerequisites: six courses in economics and/or business, junior or senior standing, consent of department, and a GPA of at least 2.0.

BA 601 Strategic Management (4 SH). A capstone course that focuses on general management skills involved in choosing an organizational strategy, committing critical resources to implementation, and appropriately reevaluating that strategy as internal and external organizational environments change. The course integrates the major business functions using top management’s generalist view. The primary method of instruction is case analysis. Prerequisites: BA 305, 310 and 350.

BA 602 Managing Across Borders and Cultures (4 SH). An examination of business activities between the United States and its principal and developing trade partners throughout the world. The impact of culture on business activities between countries will be examined. Topics to be covered, but not restricted to: the impact of NAFTA and other trading blocks on U.S. business, implementation of import/export agreements, future of trade in evolving economies. This is the capstone course for the international business major. Prerequisites: BA 305, 310, and 350.

BA 610, 611 Seminar/Advanced Topics (1–4 SH). A study of relevant topics and techniques pertaining to the current business and economics environment. Solution processes and problem defining are stressed.

BA 620-624 Independent Study (1–4 SH). Prerequisites: six courses in economics and/or business, with at least a 3.250, junior or senior standing, and consent of department.

BA 660, 670, 680, 690 Honors Project (1-4 SH). (See p. 61.)

BROADCAST COMMUNICATION

BC 102 Audio Production (4 SH). Provides the student with the theoretical background and practical experience in the preparation of audio materials for radio, television, web, and social media using both analog and digital audio equipment. A lab and involvement at Titan Radio Digital 88.9 FM is required. Some weekend work is required.

BC 111 Writing for Electronic Media (4 SH). This class introduces students to the fundamental techniques of broadcast news writing along with writing for online platforms. Students gain skills and experiences in interviewing, writing, editing news on the air and online in short and long formats. Prerequisite: BC 102 or consent of instructor.

BC 112 Digital Moviemaking (4 SH). This beginning level course will introduce students to the art of digital moviemaking using consumer digital cameras. The class will shoot, edit, act in and produce projects to be shared online.

BC 120 Broadcast Practicum (1 SH). Students engage in experiential learning and professional development in multi-media content and programming with the campus radio and cable television stations and WCN 24/7. Hands-on experience may include radio on-air or news anchor shifts, television news anchoring or reporting, serving on television and remote crews, news writing, videography or similar approved activities. On-air radio and television positions require an audition. Practicum requires each student to demonstrate best practices, competency and advancement of audio, video and writing skills. Students cannot receive practicum credit for work done for other BC classes, labs or assignments, or count work study hours as part of the practicum. Students must be involved at the stations a minimum of seven hours per week. Early morning, evening and weekend work with our stations, remote truck and online media is required. Prerequisites: Students must satisfactorily complete a one semester basics of broadcasting workshop conducted by the department before they can enroll in practicum.
BC 201 Broadcasting Workshop (1 SH). A one-semester-hour workshop conducted by a broadcasting professional. A variety of topics will be presented over a four-year period. The student will be required to attend two six-hour Saturday sessions or four three-hour evening sessions and produce an assigned project for critique between sessions. Will be graded on a S/U basis. Students are limited to four semester hours of workshop experiences.

BC 251 Video Production (4 SH). Provides an introduction to the fundamentals of television production. Students obtain experiences in camera operation, audio, lighting, and editing procedures in correlated laboratory sessions. Participation in cable television productions is required. Lab required. Prerequisites: BC 102 and BC 111, or consent of instructor.

BC 253 Mass Communications (4 SH). An introductory analysis of problems, criticisms and structure and history of mass media in the United States. Emphasis will be placed on the nature, impact, consequences and roles of print media, broadcasting, motion pictures, advertising, and auxiliary media. (Also listed as COM 205.)

BC 301 Broadcast Sales and Advertising (4 SH). Explores the broadcast product as an advertising medium and compares broadcast commercials to other advertising methods. Students are taught techniques to sell broadcast advertising and are required to make actual sales calls and presentations. Prerequisites: BC 102 and BC 111 or consent of instructor. This course is also beneficial to business administration and public relations majors. Also taught as COM 303 Sales Communication. May not get credit for both BC 301 and COM 303.

BC 302 Radio/Television Announcing and Performance (4 SH). Theory and practice of effective communication skills as they apply to the electronic media. Students will participate in various radio and television performance activities. Prerequisites: BC 102 and SPE/THE 151 or consent of instructor. On-air shifts at the campus radio and announcing duties at Westminster Cable Network are required.

BC 303 Remote and Field Production (4 SH). Studies the techniques required for producing live or recorded programs outside of the radio or TV studio setting. Planning, set-up, use of portable equipment and a remote truck, and teamwork are emphasized. Extensive lab work outside of class is required.

BC 304 Programming and Promotion (4 SH). Provides an analysis of fundamental programming and promotion strategies at radio, cable and TV stations. Includes the designing of television and radio program formats and designing promotional materials. Prerequisite: BC 111 or consent of instructor.

BC 305 Media Management (4 SH). The techniques and strategies required to manage broadcasting and cable operations. A good portion of the course deals with basic management principles such as planning, organizing, problem solving, training, and human relations as they relate to broadcast management. Prerequisite: one year of experience at the campus or professional broadcast station or consent of instructor.

BC 308 Television News Producing (4 SH). Advanced study of the skills needed to be a producer of in-studio television productions. Students will produce news and public affair programs. Extensive work is required at Westminster Cable Network facilities. Prerequisites: BC 102, 111, and 251.

BC 309 Sports Broadcasting (4 SH). Instruction and experience producing and delivering broadcast sports reports for radio and television newcasts and the Web. Emphasis is on sports writing, sports photography and videography, and sports reporting for broadcast and the Web. Prerequisites: BC 102 and 251 or consent of instructor.

BC 311 Broadcast and Digital Journalism I (4 SH). This class builds on the fundamentals of broadcast and electronic news writing from previous courses including practical, ethical and legal considerations. Students learn and advance their skills in news gathering, interviewing, writing,
producing, reporting and presenting content on Titan Radio, WCN and wcn247.com. The course engages study and exploration by students in all aspects of the newsroom operations including the convergence of the broadcast side of the newsroom to the online product. **Prerequisites:** BC 102, BC 111.

**BC 312 Broadcast Journalism II (4 SH).** Students engage in the study and practice of broadcast and online journalism as it relates to television news, including practical, ethical and legal considerations involved in news gathering, writing, shooting, editing and reporting. Students generate story ideas, make contacts with sources, conduct interviews, shoot, write and edit local news stories for target audiences via the Westminster Cable Network, Titan Radio and www.wcn247.com. Students polish and advance their writing, production and storytelling skills adhering to established, professional standards. Students who wish to specialize in sports broadcasting may cover sports stories and events for class assignments. **Prerequisites:** BC 102, BC 111 and BC 251.

**BC 410, 411, 412 Broadcast Advanced Topics (4 SH).**

**BC 590, 561, 562 Broadcast and Digital Communication Internships (1–4 SH).** Only four credits may be used to meet the minimum requirements in the major or minor. Internships must be off campus at a radio, TV, cable, online, publication, or production facility. **Prerequisites:** completion of two one-hour credits of BC 102/Practicum, extensive prior experience at campus broadcast facilities, and approval of the department. S/U grading.

**BC 601, 602 Broadcast and Digital Communications Capstone (2 SH).** This course (two hours per semester) requires the student to research and produce a documentary linked to service learning goals established by the College. BC 601 focuses on the research and production of the projects. BC 602 engages students in the production, post-production and presentation and assessment of the documentaries. Each student must participate in a documentary showcase and apply best practices when it comes to writing, interviewing and audio and production techniques. These documentaries become the newest element to the student’s e-portfolio capping off their journey in the Broadcast and Digital Communications curriculum. **Prerequisites:** completion of the departmental comprehensive exam, BC 102, BC 111, and BC 251 and at least two credit hours of BC 120/Practicum.

**BC 620-624 Independent Study (1–4 SH).**

**BIOLOGY**

**BIO 101 Concepts of Biology (4 SH).** A general survey course designed for education majors and students making a transition to the biology, molecular biology, or environmental science curriculum. (Students from other non-science majors seeking to fulfill their Scientific Discovery IP should consider other 100-level courses.) Students explore ways of observing and thinking about fundamental biological processes common to many living organisms. The goal of this class is to help students become better citizens and teachers of science by increasing their ability to make informed decisions regarding current and future scientific discoveries. Emphasis is placed upon identifying and studying topics of a biological nature that are relevant to modern society. A laboratory is included, during which time students will apply the scientific method and develop critical thinking and inductive reasoning skills. Biology faculty.

**BIO 102 Understanding Evolution (4 SH).** A course for the non-science major. Biological evolution is examined from a historical perspective, from inception to our current understanding of this unifying theory of biology. Natural selection and the modern genetic theory of evolution as continuing processes are emphasized, as are the ways that evolution as a theory is testable by the scientific method. A laboratory is included. If this course is offered as a cluster, students must also register for ENG 106. J. Robertson.
BIO 103 Biology of Aging (4 SH). The study of aging as a normal biological process characterized by progressive changes in form and function at all levels of organization—molecules, cells, tissues, organs, and the whole organism. Current models to explain the phenomenon of aging are examined. Larger issues including the moral and ethical implications of increased longevity are considered. A laboratory is included. If this course is offered as a cluster, students must also register for SOC 301. Not open to biology or molecular biology majors. P. McCarthy.

BIO 105 Pattern and Process in the Natural World (4 SH). This is a cluster course for the non-science major. Students will learn how scientific discoveries are made and they will use the scientific method to investigate biological systems. Ecological concepts will be used to illustrate biological patterns at the individual, population, and community level and to explain the importance of change in the natural world. A laboratory which emphasizes field work is included. A. Throckmorton.

BIO 106 Human Biology: Health, Homeostasis and the Environment (4 SH). An introductory course for non-science major designed to introduce the student to the workings of the human body. Emphasis will be placed on an understanding of how an homeostatic balance must be maintained for proper functioning of our various organ systems. A laboratory is included. This course is intended for non-science majors and is not open to biology, molecular biology, neuroscience, or environmental science majors. M. Furimsky.

BIO 108 Human Genome Project (4 SH). An introductory course for non-science majors. The primary objectives of this course are to provide college students with a fundamental understanding of scientific technologies and concepts underlying the Human Genome Project and genetic research, and to make students aware of the ethical, social, and legal implications of this monumental achievement. Students will also develop an appreciation for the types of questions that science can and cannot answer using the scientific approach. During laboratory sessions, students will study the inheritance patterns of humans and other organisms, extract DNA from their own cells, analyze their DNA using a variety of genetic techniques and participate in a mock trial. If this course is offered as a cluster, students must also register for ENG 137. J. Corrette-Bennett.

BIO 112 Pharmacology and Drug Discovery (4 SH). An introductory course for non-science majors that aims to give students a background in what drugs are, how drugs affect the body, and how a drug is discovered and approved for public use. This course will cover basic concepts in human physiology, the cellular and molecular level aspects of drug function, and ethical considerations surrounding drug testing and drug use to treat childhood dysfunctions. The laboratory section of this course will include hands-on demonstrations of the scientific method, detailed case studies, and exercises that promote scientific literacy and critical evaluation of marketing claims. If this course is taught as a cluster, students must also register for EDU 201, where different disabilities are discussed on a weekly basis that correspond with drugs and treatments discussed in BIO 112.

BIO 113 Global and American Epidemics. An introductory course for non-science majors which explores the causes, pathology, epidemiology and treatment of infectious diseases, through examples of epidemics that have occurred throughout history in the United States and that are occurring currently around the globe. We will also take a look at emerging diseases such as hemorrhagic fevers and multi-drug resistant infections. BIO 113 is a service-learning course. Students will be expected to participate in an ongoing, service learning project which includes the development of educational materials to enhance the education of school children in Africa. A laboratory component is included and BIO 113 fulfills the SD IP requirement for graduation. K. Robertson.

BIO 151 Biology of Sex (4 SH). A course for non-science majors, examining biological aspects of human sexuality. Content covered will include male and female reproductive anatomy and physiology, the biology of sexual responses, sexual dysfunctions, genetic basis of sex, sexual development, pregnancy and birth control, sexually transmitted diseases, and biological perspectives on gender identity. While the course focuses on a biological understanding of sex, information and perspectives from other disciplines will be liberally incorporated. Laboratories will both reinforce specific course content as well as provide opportunity for students to apply scientific methodology
and hypothesis testing. Course subjects and materials are frank, explicit and graphic; suggested for students with serious interest and mature sensibilities. If this course is offered as a cluster, students must also register for ENG 106. J. Robertson.

BIO 201 Cell Biology and Genetics (4 SH). This course serves as an introduction for students who have chosen biology or molecular biology as a major or minor. A combination of lectures, laboratory exercises, and assignments will introduce students to ways of observing and thinking about fundamental concepts and processes in the following areas of biology—biochemistry, cell structure and function, metabolism, genetics, and biotechnology. Various resources will be utilized to reinforce biological concepts, learn new laboratory skills, and improve critical thinking skills. Offered Fall Semester. Biology faculty.

BIO 202 Evolution, Form and Function (4 SH). BIO 202 is the second in a series of three foundational courses in biology, designed to serve as an introduction for students who are taking a biology or molecular biology major or minor. Using explorative lectures coupled with investigative laboratories, BIO 202 will focus on evolution, the structure and physiology of plants and animals, and animal development. Concepts and practices of experimental design, data analysis, and interpretation of results will be reinforced and extended through integrated laboratory activities. Prerequisite: completion of BIO 201. Offered Spring Semester. Biology faculty.

BIO 203 Biodiversity and Ecology (4 SH). This course is the last in a series of three foundational courses in biology, and serves as an introduction for students who have chosen biology as a major or minor. A combination of lectures, laboratory exercises, and assignments will introduce you to the diversity of organisms and their ecological interactions. Various resources will be utilized to reinforce biological concepts, enhance the learning experience and use of practical skills, and to improve critical thinking skills (textbooks, scientific journals, laboratory experiments, writing assignments, etc.). Prerequisite: completion of BIO 202. Offered Fall Semester. Biology faculty.

BIO 206 Biostatistics and Experimental Design (4 SH). An introductory course in experimental design and data analysis designed to encourage an understanding and appreciation of the role of experimentation, hypothesis testing, and data analysis in biology. The course will emphasize principles of experimental design, methods of data collection, exploratory data analysis, and the use of graphical and statistical tools commonly used by biologists to analyze data. Prerequisite: C- or better in BIO 201. Biology faculty.

BIO 301 Microbiology (4 SH). A study of the diversity in viruses, bacteria, fungi, and algae with an emphasis on the role of evolution in generating the diversity found in microorganisms. Consideration will be given to various energy metabolisms, genetic strategies, molecular systematics, and microbial adaptations that allow such diversity. Also considered will be the importance of microorganisms in medical, industrial, and environmental settings. A laboratory is included. Prerequisite: C- or better in BIO 201. Offered Spring Semester. J. Balczon.

BIO 302 Cell and Molecular Biology (4 SH). A study of molecular structure and function in eukaryotic cells. Topics include organic molecules that contribute to cells the function of cells, membrane transport and signal transduction, gene expression, intracellular transport, structure and motility, energy conversions, tissue composition and cell division. Laboratory exercises will reinforce many of concepts covered in lecture. Required for the molecular biology major. Prerequisite: C- or better in BIO 201. Offered Fall Semester. K. Resendes.

BIO 303 Molecular Genetics and Heredity (4 SH). This course serves as a broad introduction to the structure and function of nucleic acids, processes that regulate expression of genetic information, and processes that direct inheritance of genetic information. Prokaryotic and eukaryotic organism will serve as model systems for studying topics such as nucleic acid structure, function, replication, damage, repair, and control of gene expression. Additional topics include, but are not limited to, Mendelian genetics, epigenetics, population genetics, and the genetics of cancer. Weekly laboratory exercises are an essential component of this class and will be used to explore various molecular
and biochemical techniques for isolating, replicating and analyzing nucleic acid sequence as well as studying modes of inheritance. Required for the molecular biology major. **Prerequisite:** C- or better in BIO 201. Offered every other Fall Semester. J. Corrette-Bennett.

**BIO 304 Developmental Biology (4 SH).** A study of the mechanisms of organism development from fertilization to birth. Both molecular and classical morphologic aspects of development are covered, with emphasis on the vertebrates. A laboratory is included. **Prerequisite:** C- or better in BIO 202. K. Robertson.

**BIO 334 Physiology (4 SH).** An introduction to the physiology of cells and animals. Major emphasis is placed on the functional interrelationships that exist within cells and organisms. A laboratory is included. **Prerequisite:** C- or better in BIO 202. Offered Fall Semester. M. Furimsky.

**BIO 335 Anatomy and Physiology I (4 SH).** First of a two-course sequence studying the anatomical and physiological principles of the human body, including a survey of the major organ systems of the human body and their relationship to health and disease. Emphasis is placed on cells, tissues, and the musculo-skeletal, nervous, and endocrine systems. A laboratory is included. **Prerequisite:** C- or better in BIO 202. Offered Fall Semester, alternate years. J. Robertson.

**BIO 336 Anatomy and Physiology II (4 SH).** Second of the two-course sequence studying the anatomical and physiological principles of the human body. Emphasis is placed on the cardiovascular, respiratory, digestive, urinary, immune, and reproductive systems. A laboratory is included. **Prerequisite:** C- or better in BIO 335. Offered Spring Semester, alternate years. J. Robertson.

**BIO 337 Comparative Vertebrate Anatomy (4 SH).** A study of the phylogenetic history of the vertebrates through gross anatomy. Emphasis is placed on adaptive radiation of structures which are homologous through the classes of the vertebrate subphylum. The laboratory includes dissection of representative vertebrates. **Prerequisite:** C- or better in BIO 202. Offered Spring Semester, alternate years. J. Robertson.

**BIO 338 Evolution (4 SH).** A study of the population as the unit of evolution. Considered are the origins of life, gene pools and genetic equilibrium, adjustments and adaptations to the environment including natural selection, fluctuations in numbers, genetic drift, polymorphism, isolation, and the origin of races and species. A laboratory is included with some field work. **Prerequisite:** C- or better in BIO 202. Offered alternate years. J. Robertson.

**BIO 360 Ecology (4 SH).** A study of the structure of ecological populations, communities, and ecosystems, and the processes that affect them. Topics include population growth, regulation and dynamics, population interactions, food webs, species diversity, succession, biogeography, and energy flow and nutrient cycling. Laboratories stress experimental design and data analysis. **Prerequisite:** C- or better in BIO 203. J. Balczon. (*Also listed as ES 360.*)

**BIO 361 Biological Diversity (4 SH).** An in-depth, cross-sectional study of the diversity of eukaryotic organisms. Pertinent to this course is the evolutionary process which is centered on adaptation, diversity, natural selection and speciation. Topics include paleontology, life histories, survival strategies in feeding and reproduction, biogeography and patterns of extinction. The social, ethical and political consequences of human activities will also be addressed. This course assumes reasonable knowledge of all major taxa and schemes of taxonomy. The laboratory component will consist primarily of field work. **Prerequisite:** C- or better in BIO 203. Offered Fall Semester.

**BIO 363 Animal Behavior (4 SH).** An introduction to the fascinating fields of animal behavior. This course focuses on the relationships between animals and their environments through adaptation, communication and social organization. It also explores other exciting issues such as, what animal behavior can teach us about ourselves, how economic game theory has been used to explain evolution of behavior, and how our understanding of animal behavior is changing the way we treat them. The lab component consists mainly of field work and bench work in the form of animal observations and a possible field trip to a wild animal facility. **Prerequisites:** C- or better in BIO 202 or PSY 201; willingness to spend significant amounts of time watching animals. K. Robertson. (*Also listed as PSY 315.*)
BIO 401 Recombinant DNA and Biotechnology (4 SH). This course examines traditional and more recent advances in nucleic acid analysis and manipulation. Topics include genome analysis, subcloning, sequencing, gene expression, microarrays, RNAi, bioinformatics, vaccine development, pharmacogenomics, and gene therapy. Information literacy assignments reinforce topics covered in lecture and lab. Weekly laboratory exercises are an essential component of this class and will be used to reinforce and explore many of the concepts covered in lecture. Prerequisite: C- or better in BIO 302 or 303. Offered Spring Semester. J. Corrette-Bennett.

BIO 402 Biology of Global Infectious Diseases (4 SH). This course investigates the causes, pathology, prevention and treatment of important infectious diseases that occur around the globe. The course is in a lecture/discussion format with focus on case studies and readings from primary literature, and includes hands-on laboratory investigations of living microorganisms. BIO 402 is a service-learning course. Students will be expected to participate in an ongoing, service learning project which includes the development of a lab manual and a set of experiential learning exercises to aid in the health education of school students at home and overseas. Prerequisite: C- or better in BIO 201 and BIO 203. K. Robertson.

BIO 403 Biology of Cancer. This course provides students with a general introduction to the nature of cancer, a conceptual understanding of the molecular events underlying the development of human cancers, and an historical perspective on its underlying causes, including the role of tumor viruses, cellular oncogenes and tumor suppressors. The larger implications of these causes will be addressed by studying the mechanisms of tumorigenesis, metastasis, and angiogenesis. In addition, students will investigate the development and clinical use of therapies based on major discoveries in cancer research. This is a textbook-based course, but will involve substantial use of the related primary literature and will include a laboratory component exploring a range of techniques used in the study of cancer biology. Prerequisite: C- or better in BIO302. Offered Spring Semester. K. Resendes.

BIO 433 Behavioral Neuroscience (4 SH). Analysis of how nervous systems activity underlies sensory, perceptual and higher cognitive activities including motivation, memory, language, thought and mental illness. A laboratory is included. Prerequisite: PSY 101 or BIO 201. Psychology faculty. (Also listed as NS 341 and PSY 341.)

BIO 434 Neurobiology (4 SH). This course is an exploration of advanced topics in the field of neurobiology, with the focus being the nervous system as the central control and integrating system in animals. It reviews fundamental neuroanatomy and neurophysiology, as well as more specific topics such as sensory systems, neuroendocrinology and nervous system development and disease. Recent advances published in the field of neurobiology will also be discussed. The lab component will be complementary to material covered during lectures. Prerequisite: C- or better in BIO 334 or BIO 335. Offered Spring Semester in alternate years. M. Furimsky. (Also listed as NS 434.)

BIO 461 Field Biology (4 SH). This course examines the local flora and fauna and is based upon field observation, natural history, and identification of local plants and animals. The lab component will involve extensive field work, including techniques for monitoring and assessment, and will be a major focus of this course. Prerequisite: C- or better in BIO 338, 360, or 361. Biology faculty.

BIO 463 Marine Biology (4 SH). A detailed study of marine organisms and their interactions with physical, chemical, and biological factors in their environment. Adaptations of the most important groups of marine organisms will be examined from evolutionary, ecological, and physiological points of view. Major marine ecosystems will be described. In addition, the course will examine how marine organisms and ecosystems are affected by human activities and how those activities affect the future of ocean resources on Earth. Prerequisite: C- or better in BIO 338, 360, or 361. Offered Spring Semester, alternate years. A. Throckmorton.

BIO 464 Freshwater Biology (4 SH). A study of inland water systems, including lakes, rivers, estuaries, and wetlands. The biological, physical, and chemical features of these systems are
described, and the interaction between aquatic and terrestrial ecosystems is discussed. A laboratory emphasizing field work is included. **Prerequisite:** C- or better in BIO 338, 360, or 361. A. Throckmorton.

**BIO 465 Introduction to GIS (4 SH).** This course is an introduction to the theory and use of Geographic Information Systems, including the fundamental concepts of GIS, capabilities of GIS, and applications for dealing with spatial data. Key issues for discussion will include data input, data models, database design and database queries, sources of information for spatial databases, spatial analysis, computational algorithms, and information presentation. Other issues such as the nature of geographic phenomena to be represented in a GIS, comparisons of different GIS representational schemes, and appropriate use of geographic information will also be covered. These topics will be discussed within an environmental context using ArcView, a PC-based GIS software package. A. Throckmorton. *(Also listed as **ES 465.**)*

**BIO 520, 521 Biology Travel Course (4 SH).** A combination of on-campus study, with off-campus study in a natural setting to gain firsthand knowledge of biological concepts and principles that are particularly well illustrated in the region being studied. Experiential, problem-based learning is emphasized. The specific region, topics, and focus are likely to change with each offering. Biology faculty.

**BIO 590-594 Field Experience/Internship (1-4 SH).** An experience planned cooperatively with a research center, laboratory, clinic, government agency, or similar institution. The course does not replace any of the three biology elective courses for a biology major. **Prerequisite:** department approval after submission of an internship application.

**BIO 601 Biology Capstone (2 SH).** The first semester of a two-course sequence emphasizing biological discovery and the synthesis of knowledge and skills from previous courses in the major. Focus of the capstone is on application of the scientific method through the design, execution, analysis, and presentation of an experimental study. In the spring of their junior year, students produce a formal proposal for research to be completed in the second half of the capstone, BIO 602. Required of all biology and molecular biology majors. **Prerequisites:** Junior standing and successful completion of BIO 201, 202, 203, and 206. Offered Spring Semester. Biology faculty.

**BIO 602 Biology Capstone (2 SH).** The second semester of the capstone experience. Students in the class perform individual studies that were proposed in the prior semester, analyze their data, and present the results of their research in an appropriate forum. Required of all biology and molecular biology majors. **Prerequisite:** C- or better in BIO 601. Offered Fall Semester. Biology faculty.

**BIO 620-624 Independent Study (1-4 SH).** **Prerequisite:** department approval after submission of a proposal.

**BIO 660, 670, 680, 690 Honors Research (2-4 SH).** **Prerequisites:** Successful completion of BIO 201, 202, 203, and 206 and a minimum GPA of 3.500 (total GPA, and GPA of courses in the major) are required to be considered for Honors Research. Honors Scholars are expected to attend and participate in BIO 601 while they write their Honors proposal. Honors status will be assessed and reviewed at various points during the Honors research project by an Honors Committee and select members of the biology department.

**CHEMISTRY**

**CHE 101 Our Chemical World (4 SH).** An investigation of a number of areas of everyday life and some chemical factors that have significant effects on our lives. Chemistry interacts with other scientific, social, political and economic factors. Examples include our use of energy, pharmaceutical
drugs, water, use of non-renewable resources, and waste disposal. The laboratory emphasizes investigation of systems, collection of data and observations, and devising logical explanations. (This course cannot be used as part of a chemistry major or minor. PreK-4 early childhood education/ preK-8 special education majors may use this course to meet the physical science requirement.)

CHE 111 Foundations of Chemistry (4 SH). A study of the properties and the particulate nature of matter, the language of chemistry, the periodic table, atomic and molecular structure, and the energy changes that accompany chemical reactions. The laboratory program will involve investigation of chemical systems, analysis and interpretation of both qualitative and quantitative data, as well as communication of the results. CHE 111 is for students who have not had a previous course in chemistry or whose performance on a placement test has demonstrated the need for additional preparation in chemistry prior to taking CHE 117. (This course cannot be used as part of a chemistry major or minor.) Offered Fall Semester.

CHE 117 Principles of Chemistry (4 SH). A course emphasizing stoichiometry, chemical equilibria, acids and bases, chemical kinetics, thermodynamics, electrochemistry, nuclear phenomena, and interactions of science and society. In the laboratory program students will investigate chemical systems, analyze observations and data, devise explanations, and communicate results. Prerequisites: High school chemistry and an acceptable score on a placement test or completion of CHE 111 or ES 160 with a grade of C- or better. Offered Fall and Spring semesters.

CHE 180 Inorganic Chemistry (4 SH). A study of the energetics of the bonding and reactions of inorganic compounds. Emphasis is given to the periodicity of the chemical and physical properties of the elements. Major themes of the course include effective nuclear charge, lattice energy, charge density, acid/base theories, and the descriptive chemistry of all of the elements. The laboratory includes the investigation of the energetics of reactions, the synthesis and analysis of coordination compounds, qualitative chemistry, and the communication of results. Prerequisite: CHE 117 with a grade of C- or better. Offered Fall and Spring semesters. L. Miller. P. Smith.

CHE 230 Chemical Analysis (4 SH). A study of the theoretical foundation and skills necessary for the solution of problems encountered in the area of quantitative chemical analysis, including classical and modern methods. Emphasis is given to the evaluation and presentation of data, sampling, equilibrium dynamics of analytically important reactions, experimental design, volumetric techniques, absorption and emission spectroscopy, electrochemical methods, and analytical separations. Examples and laboratory exercises will include environmental air, soil and water systems. Prerequisites: CHE 117, and MTH 135, MTH 150 or BIO 206 (may be co-requisite) with grades of C- or better. Offered Fall and Spring semesters. H. Boylan. (Also listed as ES 230.)

CHE 261 Organic Chemistry I (4 SH). An overview of organic chemistry. Organic molecules are compared by their functional group, focusing on nomenclature, physical properties, and the major chemical reactions used in synthesis and identification. Emphasis is also given to the areas of acidity, basicity, stereochemistry, aromaticity, and spectroscopy. Laboratory activities involve techniques for determination of physical and chemical properties, and methods of purification. Prerequisite: CHE 117 with a grade of C- or better. Offered Fall and Spring semesters.

CHE 262 Organic Chemistry II (4 SH). A study of organic reactivity. This course details organic molecules by reactivity and emphasizes the differences between organic reactions. Specifically, organic reactions will be surveyed by type of reaction keying on the movement of electrons, molecular orbitals, and energetics. Spectroscopy is employed to monitor structural changes. Laboratory activities also probe the reactivity of molecules and explore the relationship between structure and reactivity. Prerequisite: CHE 261 with a grade of C- or better. Offered Spring Semester.

CHE 330 Elements of Physical Chemistry (4 SH). A study of the macroscopic and microscopic behavior of matter. Topics include the applying the laws of thermodynamics, the models of quantum
mechanics, and the behavior of time-dependent processes. **Prerequisite:** CHE 117, MTH 150 and PHY 142 or PHY 152. Offered Fall Semester. M. Kellner, L. Miller.

**CHE 332 Physical Chemistry in Depth (4 SH).** An in-depth study of the macroscopic and microscopic behavior of matter. This course further develops the theoretical foundations and calculus-based derivations used in the study of thermodynamics, quantum mechanics, and chemical kinetics, topics that were introduced in CHE 330, Elements of Physical Chemistry. **Prerequisite:** CHE 330, MTH 152. Offered Fall Semester. M. Kellner, L. Miller.

**CHE 335 Physical Chemistry Laboratory (2 SH).** The emphasis of this course is the demonstration of the fundamental principles of chemical thermodynamics, chemical kinetics, and quantum and statistical mechanics. Methods that will be used during this laboratory course include: calorimetry, electrochemistry, varieties of spectroscopy (UV-Vis, IR, and NMR), and computational chemistry/molecular modeling. **Prerequisite:** CHE 230 and CHE 330. Offered Spring Semester. L. Miller, P. Smith.

**CHE 340 Instrumental Analysis (4 SH).** A study of modern instrumentation used in the investigation of chemical systems. The theory, design, and application of spectroscopic, electrochemical, and surface analysis techniques are discussed. Basic electronics and the relationship between signal and noise are also discussed. **Prerequisites:** CHE 230 and PHY 142 or 152. Offered Fall Semester, alternate years. H. Boylan.

**CHE 351, 352 Advanced Laboratory (2 SH each).** A project-oriented, two-semester laboratory program that integrates methods and techniques normally taught as the laboratory experiences of various upper-level courses. Included are various forms of spectroscopy and chromatography, advanced synthetic techniques, and other methods. This course includes participation in the weekly seminar. **Prerequisites:** CHE 180, CHE 230 and CHE 261. Offered Fall and Spring semesters, respectively.

**CHE 375 Green Chemistry (4 SH).** A study of the principles, concepts, and applications of green chemistry. Particular attention will be given to industrial processes, catalysis, waste management, and renewable resources. Discussions will focus on the current literature on green chemistry. While the course does not include a laboratory, students will participate in a project that applies the principles of green chemistry to a laboratory experiment used in the chemistry curriculum. This project will serve as the culminating experience for the course. **Prerequisites:** CHE 230 and CHE 261. S. Kennedy, P. Smith.

**CHE 380 Principles of Biochemistry (4 SH).** A chemical study of proteins, carbohydrates, lipids and nucleic acids in a biological context. Emphasis is placed on the structure to function of these biological molecules and their context within organisms. Energy transductions and concepts of metabolism are also introduced. **Prerequisite:** CHE 261. Offered Fall and Spring semesters. S. Kennedy, L. Miller, T. Sherwood.

**CHE 382 Metabolic Biochemistry (4 SH).** A course examining the metabolism of carbohydrates, lipids, proteins, and nucleic acids, and the flow of biological information in organisms in detail. Specific metabolic pathways and genetic informational flow in plants and animals will be addressed. **Prerequisite:** CHE 380. Offered Spring Semester, alternate years. Offered Spring Semester, alternate years. S. Kennedy, L. Miller, T. Sherwood.

**CHE 385 Biochemistry Laboratory (2 SH).** A chemical investigation of proteins, carbohydrates, lipids and nucleic acids in the laboratory. Emphasis is placed on purification and characterization of biological molecules utilizing contemporary instrumentation and techniques. **Prerequisite or co-requisite:** CHE 380. Offered Spring Semester. S. Kennedy, L. Miller, T. Sherwood.

**CHE 391 Advanced Inorganic Chemistry (4 SH).** A study of symmetry and group theory with applications to molecular orbital theory, the analysis of electronic and vibrational spectra, and reaction
mechanisms. Organometallic chemistry, catalysis, and bioinorganic chemistry are also discussed. The course also includes a laboratory project on the synthesis of coordination and/or organometallic complexes. **Prerequisites:** CHE 180, CHE 330. Offered Spring Semester, alternate years. P. Smith.

**CHE 590-594 Field Experience/Internship (1-4 SH).** **Prerequisites:** CHE 117 and departmental approval.

**CHE 600 Senior Project (2 SH).** An independent senior project that integrates previously learned techniques in the investigation of a chemical problem. After conducting the project and completing data collection, the term ends with the preparation of the senior thesis. **Prerequisite:** CHE 352.

**CHE 601, 602 Chemistry Capstone (2 SH each).** Weekly discussions of the discoveries, activities, and lives of professional chemists, examining cutting-edge developments in chemistry, the interaction of chemistry and society, and our ethical and moral responsibilities as members of the chemical profession. This experience also includes field trips, summary papers, and participation in weekly departmental seminars. **Prerequisite:** senior standing. Offered Fall and Spring semesters, respectively.

**CHE 610, 611 Advanced Topics (4 SH).** Subject may be advanced biochemistry, coordination chemistry, electrochemistry, environmental chemistry, green chemistry, heterocyclic molecules, macromolecules, nuclear and radiochemistry, polymers, or solid state chemistry. **Prerequisites:** major standing and permission of professor.

**CHE 620-624 Independent Study (1-4 SH).** **Prerequisites:** CHE 117 and departmental approval.

**CHE 660, 670, 680, 690 All-College Honors Program (1-4 SH).** (See p. 61.) **Prerequisites:** honors status and departmental approval.

**CHRISTIAN EDUCATION**

**CHED 101 Faith and Theology: Foundations in Christian Education (4 SH).** This course serves as the introduction to the basic issues of Christian education, including spiritual, psychological, and physical development, as well as historical and contemporary theologies and theories of Christian education.

**CHED 201 Christian Ministry with Children (4 SH).** This course is an introduction to the process of educating children in the Christian faith. We will be addressing specific issues of children’s spiritual development and incorporation into the life of the congregation. Students will be working in internship positions in which they can develop the teaching skills appropriate to their particular internship setting. **Prerequisite:** REL 126.

**CHED 202 Christian Ministry with Youth (4 SH).** This course will address the particular challenges of youth ministry in the context of congregations and parachurch ministries. Topics include the analysis of the worldview and culture of youth as it relates to the gospel message, and current research on teen-age spirituality. Students will be working in internship positions in which they can develop the leadership skills appropriate to their particular internship setting. **Prerequisite:** REL 126.

**CHED 203 Christian Ministry with Adults (4 SH).** This course will address the spiritual development that occurs as adults mature and age. We will be addressing such life issues as marriage, parenting, vocation, and grief. We will be looking at various definitions of Christian maturity and its manifestation and relevance to the Christian community. Students will be working in internship positions in which they can develop leadership skills appropriate to their particular internship setting. **Prerequisite:** REL 126.
CHED 301  Christian Education Administration (4 SH). Students will analyze a variety of organizational and administrative principles related to programming for Christian ministry. Topics include leadership training, small group development, curriculum development and evaluation, teacher training and development of congregational resources. Students will be working in internship positions in which they can develop leadership skills appropriate to their particular internship setting. Prerequisite: REL 126.

CRIMINAL JUSTICE STUDIES

CJS 102 Deviance (4 SH). An exploration of norm-breaking behavior and its consequences. Traditional and contemporary theories of deviance will be examined, as will particular areas of deviant behavior. The change in definitions of what is regarded as deviant will be dealt with at length. K. Robison, R. Zito.

CJS 201 Juvenile Delinquency and Justice (4 SH). An exploration of juvenile misconduct and its legal consequences. Theories explaining juvenile delinquency from a variety of perspectives will be examined. The emergence and present state of the juvenile justice system will be covered as well. Offered Spring Semester. K. Robison.

CJS 202 Criminology (4 SH). This course covers the workings of the criminal justice system. Students will explore how we define and respond to crime, how the institutions of the criminal justice system (police forces, criminal courts and prisons) have developed and functioned, and the reasons criminal justice policies are adopted and the effects those policies have. Offered Fall Semester. K. Robison, S. Smithey.

CJS 302 The Sociology of Law and Legal Systems (formerly listed as SOC 203) (4 SH). This course takes a broad perspective on such questions as the origins of law and the development of systems of dispute settlement. Special emphasis is placed on the relationship between law and social change, and law and social control in the areas of criminal and civil law. Prerequisite: SOC 101 or CJS 102. Offered Spring Semester. G. Lilly, K. Robison.

CJS 590-594 Field Experience/Internship (1-4 SH).
CJS 620-624 Independent Study (1-4 SH).
CJS 660, 670, 680, 690 All-College Honors Program (1-4 SH).

COMPARATIVE LITERATURE AND CULTURE

CLC 101-119 Studies in World Literature and Culture (4 SH). The study of a variety of works and genres from both Western and non-Western cultures.

CLC 120-129 Studies in French and Francophone Literature and Culture (4 SH). The study of French and Francophone texts exemplifying various themes, topics, and/or periods, viewed in the context of the culture that produced them.

CLC 140-159 Studies in Hispanic Literature and Culture (4 SH). The study of Spanish and Hispanic American texts exemplifying various themes, topics, and/or periods, viewed in the context of the culture that produced them.

CLC 160-169 Studies in Classical Literature and Culture (4 SH). The study of Classical Greek and/or Roman texts exemplifying certain themes, topics, and/or periods, viewed in the context of the culture that produced them.
COMMUNICATION

COM 151 Voice and Diction (4 SH). Theory and practice in the basic techniques of developing a clear and expressive speaking voice. Breath control, proper phonation, full resonance and projection, and articulation will be covered as well as exercises for improving use of pitch, timbre, and vocal quality. (Also listed as THE 151.)

COM 201 Interpersonal Communication (4 SH). Designed to examine communication between two people. This class provides opportunities to understand the dynamics of human communication, to assess your own weaknesses and strengths as a communicator, and to learn to make good communication choices as you encounter challenging real-life situations.

COM 202 Small Group Communication (4 SH). This course examines effective small group communication. Topics include member characteristics, roles, norms, cohesiveness, leadership, problem solving, conflict resolution, and decision making. The course requires students to complete group projects and exercises and present them in a variety of possible forms, including panel discussions, forums, and symposia.

COM 203 Professional Presentations (4 SH). This course offers students the opportunity to develop presentations in their field (business, public relations, education, etc.).

COM 205 Mass Communications (4 SH). An introductory analysis of problems, criticisms, and structure of mass media in the United States. Emphasis will be placed on the nature, impact, consequences, and roles of print media, broadcasting, motion pictures, advertising, and auxiliary media. (Also listed as BC 253.)

COM 207 Business and Professional Communication (4 SH). An analysis of communication in organizations, this course material focuses on interviewing skills, office communication media and choice-making, and sensitivity to evolving standards of “appropriate” behavior in the workplace. A variety of communication contexts are examined, including: interviews; written, electronic, and oral correspondence; and meetings, lunches, and parties. Intercultural theories and practice will receive special attention, and be explored in depth.

COM 225 Communication Ethics (4 SH). This course is designed to introduce the interrelationship of communication and free speech. The course will provide the opportunities to understand ethical communication in various contexts, assess weaknesses and strengths as an ethical communicator, and apply theories of communication ethics to the major course of study.

COM 230 Social Media and Web Planning (4 SH). The design and implementation of a Web site is primarily a communication activity. An individual or organization has a message to send to an intended audience. The course will focus on the Web site pre-design activities of audience definition, objective setting, determining information architecture, feature definition, storyboard design, plus usability and interface testing procedures.

COM 251 Oral Interpretation (4 SH). A study of the methods of creating for a listening audience an interpretation of the printed page. Attention is focused upon literary form, imagery, inflection, word stress, and other factors which influence listener response and understanding, and also which aid in the effective expression of one’s own ideas. (Also listed as THE 251.)

COM 301 Applied Social Media (4 SH). This course allows the student the ability to examine how organizations can effectively use social media to communicate with various constituencies. Not only will there be opportunity to learn about social media theory but the application of this theory will be an integral part of the course experience.

COM 303 Sales Communication (4 SH). This course adapts sales and persuasion theories through practical sales exercises. Students make actual sales calls as part of class. Sales theories are then
adaptable to other persuasive opportunities such as selling your ideas to others in a business setting or selling yourself in a job interview. Also taught as BC 301 Broadcast Sales and Advertising. May not get credit for both BC 301 and COM 303.

COM 320 Sports, Media and Culture (4 SH). This course explores the complex and often overlooked dynamic of sport communication in today's society and what we can learn about our cultural norms and values through sport. Since most of our exposure to sports is mediated through media (watching events on television, listening to sports talk radio, reading sports magazine, or surfing sports news websites), there will be special attention to how the media contributes to the ongoing discourse in this area. Drawing on theories of media and rhetorical criticism, this course will examine media's role in telling the story of sports, and how telling that story shapes and reinforces cultural values.

COM 405 Political Communication (4 SH). This course will introduce students to advanced rhetorical theory, explore historical uses of political communication, and examine how political communication has evolved under the influence of new media.

COM 410 Advanced Topics (4 SH). The Advanced Topics course provides in-depth study of communication regarding a particular issue. Specialized topics include such areas as health-care communication, communication in teaching, free speech and censorship, communication and personality, environmental communication, semantics, family communication, and intercultural communication.

COM 590-594 Field Experiences/Internship (1-4 SH).

COM 601 Capstone (4 SH). The capstone course requires students to develop a project that explores a topic in communication studies. Students present their work to the campus community.

COM 620-624 Independent Study (1-4 SH).

COM 660, 670, 680, 690 Honors Research (1-4 SH).

**COMPUTER SCIENCE**

CS 102 Introductory Programming (4 SH). Study of an introductory programming language. Development of complete software systems will be stressed. Debugging, editing, and string processing will also be included. Not available to students who have credit for CS 151.

CS 103 Information Technology (4 SH). An introduction to computer tools and techniques for the organization, processing, and presentation and communication of information. Topics may include spreadsheets, design of World Wide Web pages, Web 2.0 tools and other software. Some attention will be given to foundational concepts, elementary programming and the use of a computer operating system, to provide a basis for understanding the tools and techniques covered in the course. This course is directed to the career goals of non-majors. Not available to students who have credit for CS 151.

CS 104 Applied Database (4 SH). Topics in this second course in the IS concentration include database systems and applications using ACCESS. Database concepts will be discussed to provide a solid undergirding for study of the tools and activities in the course. A term project will complete the course. Not available to students who have credit for CS 321.

CS 151 Principles of Computer Science I (4 SH). A broad introduction to the discipline of computer science, with attention given to many components of the field. Topics include an examination of subfields of computer science, computer representation of data, an introduction to hardware structure, and fundamentals of programming languages. Special emphasis is given to techniques for problem
solving and algorithm development, designing and implementing computer programs, and software
analysis and verification methods. Prerequisite: prior programming experience recommended.

CS 152 Principles of Computer Science II (4 SH). A continuation of the study of the discipline of
computer science. This course includes an introduction to data structures, simulation, and scientific
uses of computing. Programming for searching and sorting data is covered, as well as an introduction
to recursion. Prerequisite: CS 151.

CS 201 Web Design (2 SH). This two-credit course provides the student with an understanding of
the concepts and technologies used on the Internet to support Web pages and electronic commerce.
Some of the topics covered in this course include the concepts of the Internet and WWW, the various
protocols used - http, ftp, telnet - browsers and tools, and searching for information on the WWW.
The course considers Web site design, development and management, as well as HTML document
design and construction. HTML topics will include basic syntax or tags used to create HTML
documents. Some specific items will be the syntax for tables and forms, image maps, frames, and
cascading style sheets. Other topics will include the design and creation of images (including design
theory and color theory, as well as cultural influences), and ethical and legal issues will be explored.

CS 202 Integrating Technology into the Classroom (2 SH). This course expands upon a student’s
existing knowledge of computer technology (e.g., word processing, spreadsheets, multimedia
presentations, using the Internet). It will examine technology as a medium for helping educators
communicate with their students. Using technology for the sake of technology will fail - it must be
integrated into the classroom based on both learning theory and teaching practice. The course will
help students assess various types of technology and software to evaluate their match for specific
teaching and learning needs. Examples of technologies that may be investigated include: using
spreadsheets for recording and analyzing data, remediation software, HyperStudio, and using the
Internet to find appropriate people, resources, and curriculum.

CS 221 Systems Analysis (4 SH). An introduction to methods and techniques of Systems Analysis
and Design. A structured formal approach to the task of identifying business-oriented problems and
developing computerized systems is presented. Applications of structured methodologies will result
in a student developed project. This course is typically a service-learning course.

CS 251 Data Structures (4 SH). A course on the use, implementation and analysis of data structures
and algorithms. Data structures to be studied include balanced search trees, hash tables, priority
queues and disjoint sets. Advanced sorting algorithms and recursive techniques are also studies,
along with mathematical techniques for algorithm analysis. Students will also be introduced to a

CS 252 The Internet (4 SH). This course focuses on the technology and software of the Internet.
Since these rapidly change, the specific topics covered will vary each time the course is taught,
but will include fundamental Internet technology components, applications of these technologies,
and use of some of the latest Web tools. This is a cluster course, therefore students must also
register for The Internet: Psychology (PSY 251).

CS 271 Neural Networks: The Computing Perspective (4 SH). A study of the structure,
construction and capabilities of computational devices including neural networks, and their practical
application to solving real-world problems. This is a cluster course, therefore students must also
register for Neural Networks: The Biopsychological Perspective (PSY 261).

CS 310 Human-Computer Interaction (4 SH). This course stresses the importance of good
interfaces and the relationship of user design to human-computer interaction. Other topics include:
human information processing models and their role; interface quality and methods of evaluation;
inter design examples; dimensions of interface variability; dialogue tools and techniques; user-
centered design and task analysis; prototyping and the iterative design cycle; user interface
implementation; prototyping tools and environments; basic computer graphics and sound. **Prerequisite:** CS 151 or CS 102.

**CS 311 Computer Architecture (4 SH).** A study of the organization of computer systems at the hardware level, along with advanced concepts and techniques for programming in assembly language. **Co-requisite:** CS 251.

**CS 321 Database Theory and Design (4 SH).** The design and implementation of systems for managing large integrated collections of data. Database system architecture; the relational and object-oriented models; security and integrity; and commercial database systems are studied. Included also is computer laboratory experience with one specific database system. **Co-requisite:** CS 251.

**CS 331 Advanced Data Structures and Algorithms (4 SH).** This course continues the study of data structures and algorithms begun in CS 251. Major topics for this course are dynamic programming techniques and graph algorithms. Other topics will include string matching, geometric algorithms and number theoretic algorithms. **Prerequisite:** CS 251.

**CS 341 Artificial Intelligence (4 SH).** The fundamentals of artificial intelligence (AI), including problem solving techniques, search, heuristic methods, knowledge representation, planning and machine learning. **Prerequisite:** CS 251.

**CS 351 Software Engineering (4 SH).** Methodology for development and implementation of complete software systems. The course integrates concepts and methods from earlier courses and emphasizes program maintenance, file processing, debugging, and documentation. Software engineering concepts are discussed and a system project is completed. **Prerequisite:** CS 152 or permission of instructor.

**CS 411 Language Design and Implementation (4 SH).** An introduction to the principles underlying the design of programming languages and their compilers. Included are models from automata and formal language theory as they apply to the definition and processing of programming languages. **Co-requisite:** CS 251.

**CS 421 Operating Systems (4 SH).** The design, implementation and use of operating systems components is studied. Topics covered include: memory management, process management, device and file management, network protocols and interfaces, and basic systems administration. An emphasis is placed on systems programming including: standard low-level APIs, multi-threaded/concurrent programming, shared memory and other interprocess communication related topics, low-level device interfaces, and an introduction to network programming. **Prerequisite:** CS 311.

**CS 431 Data Communications/Networks (4 SH).** This course combines two important topics which aid in the link between human and machine. Techniques for transmitting data between machines will be emphasized, including local area networks, modem and satellite telecommunications and terminal interfacing. Independent student projects will be used to illustrate topics covered. **Prerequisite:** CS 152 or permission of instructor.

**CS 441 Computer Graphics (4 SH).** A study of the basic concepts related to computer graphics and how images are produced and displayed by the computer. The course covers both theory and applications. Existing software is utilized to provide a background for more in-depth study of underlying principles. Theoretical concepts are reinforced through development of graphics software. Students need a solid foundation in mathematics, structured programming, and data structures. **Prerequisite:** CS 251.

**CS 590-594 Field Experience/Internship (1-4 SH).** **Prerequisites:** 24 semester hours in computer science, including CS 151, 152, 251, junior or senior standing and prior approval of department.
CS 601 Computer Science Capstone I (2 SH). In the first half of the semester, students perform a literature review phase towards creating a research thesis. They will select a thesis adviser from the Computer Science faculty who will provide guidance in selecting an area for exploration and locating review materials. After approval of the research thesis, students use the remaining time in the semester to work on their project, meeting weekly with other students in the course to discuss their progress. **Prerequisites:** CS 151, 152, 251, plus four additional CS courses that count for the major.

CS 602 Computer Science Capstone II (2 SH). Students continue their research related work towards producing a research thesis. This will culminate in the writing of a thesis which and an oral presentation either on or off campus. **Prerequisite:** CS 601.

CS 61(x) Advanced Topics (1, 2 or 4 SH). This special topics course focuses on relevant topics and techniques pertaining to current computer science or computer information systems. The course(s) will explore cutting-edge issues, technology and methods. A description of the topic will be distributed prior to registration. **Prerequisites:** CS 251 and major standing or consent of the instructor.

CS 620-624 Independent Study (1-4 SH).

CS 660, 670, 680, 690 Honors Project (1-4 SH). (See p. 61.)

**EARLY CHILDHOOD EDUCATION**

ECE 201 Issues and Trends in Early Childhood Education (4 SH). This course will focus on the current trends and practices of early childhood education programs which serve children from birth to age nine. Professional development, history and theories, programming, development and learning, and the special needs of young children will be addressed as they relate to early childhood education. D. Roud.

ECE 203 Diversity within Family-School-Community Partnerships (3 SH). The focus of this course is on understanding how families and communities are significant contexts for children’s development and school success. Based upon these insights, students will collaboratively explore ways to build bridges of understanding between diverse schools, families, and communities. Student engagement with diverse families at a Family Reading Night as well as in field experiences will allow the student to critically reflect on a family’s funds of knowledge in light of different cultural ways of knowing. The students will use these discoveries to develop culturally responsive explorations for their future classrooms. C. Klassen Endrizzi, D. Reed.

ECE 321 Math for Preschool Years (2 SH). This course is an introduction to the content and methods of teaching mathematics in the PreK years which meets the PA Early Childhood Education standards. Instructional strategies are based on a constructivist approach emphasizing problem solving, estimation and making sense of mathematics. The role of technology in instruction, modern trends in mathematics education, research, and application of skills are included. The use of age-appropriate manipulative materials in a laboratory situation and group problem solving are developed as classroom models of instruction. Practicum experience required. J. Hoellein.

ECE 322 Math for Primary Grades (2 SH). This course is an introduction to the content and methods of teaching mathematics in the primary grades which meets the PA Academic and National Council of Teachers of Mathematics standards. Instructional strategies are based on a constructivist approach emphasizing problem solving, estimation and making sense of mathematics. The role of technology in instruction, modern trends in mathematics education, research, and application of skills are included. The use of age-appropriate manipulative materials in a laboratory situation and group problem solving are developed as classroom models of instruction. Practicum experience required. J. Hoellein.
ECE 331 Language Development Pre-K (2 SH). This course is designed to examine the developmental sequence of language acquisition and knowledge of phonics from PreK-4. It will also examine the language arts receptive and productive categories of oral, written, and visual language as part of a classroom curriculum. E. Morelli.

ECE 332 Language Development K-4 (2 SH). This course is designed to examine the developmental sequence of language acquisition and knowledge of phonics from grades K-4. It will also examine the language arts receptive and productive categories of oral, written, and visual language as part of a classroom curriculum. E. Morelli.

ECE 341 Emergent Literacy (2 SH). An introductory study of various theories of emergent literacy and literacy development. Students examine how children’s literacy roots evolve from their home and community lives. The role of comprehension and phonics instruction within guided and shared reading experiences is studied. Emphasis is placed upon building family-school partnerships. Practicum experience required. C. Klassen Endrizzi, E. Morelli.

ECE 342 Literacy in the Primary Classroom (2 SH). An introductory study of various literacy theories. Emphasis is placed on exploring how literacy curriculum, instruction, and assessment inform each other. Systematic evaluation tools for proficient and struggling readers are explored. Practicum experience required. C. Klassen Endrizzi, E. Morelli.

ECE 352 Teaching Social Studies PreK-8 (4 SH). Social Studies PreK-8 is a required course with the goal of equipping prospective PreK-4 Early Childhood and PreK-8 Special Education teachers with tools for teaching social studies to children. This course requires that the student works to develop initial ideas of social studies teaching which include methods of content selection, methods of teaching, and be able to explain the critical role of social studies education in the school curriculum. A. Camardese.

ECE 362 Observation and Assessment PreK-4 (2 SH). This course is designed to provide pre-service teacher candidates with hands-on experiences in observing and assessing children. In PreK-4 settings, students will teach lessons, administer assessment instruments, use curriculum based measurement, and evaluate and interpret the results for instructional purposes.

ECE 602/SED 602 Early Childhood PreK-4 and Special Education PreK-8 Capstone (6 SH). Student teaching (12 SH) is a supervised dual student teaching experience open to Early Childhood PreK-4 and Special Education PreK-8 majors who have completed the pattern of required courses. Students are required to participate in related seminars.

ECONOMICS

ECO 150 Principles of Microeconomics (4 SH). Fundamental economic concepts and theories of supply and demand, resource allocation, taxation, international trade, externalities, public goods, market models, and labor markets. An emphasis on applications in both public policy and individual decision making will be recurrent throughout the course.

ECO 152 Principles of Macroeconomics (4 SH). The course concerns the aggregate economic variables of gross domestic product, the consumer price index, employment, consumption, saving, investment, imports, exports, exchange rates, taxes, government spending and debt, money, and interest rates, and how they fluctuate and are related to each other. The effects of individual behavior and government policy on these variables receive attention.

ECO 220 Statistics (4 SH). An introductory course in the analysis and interpretation of quantitative data. Attention is given to the binomial distribution, the normal distribution, sampling, introductory
probability theory, and hypothesis testing. Real world applications are used with computer software for statistical analysis. Not available to students with credit in BIO 206, MTH 335, PSY 201, PS 301, SSC 251, or SSC 252. Prerequisite: MTH 130 or 131 (or concurrent enrollment in MTH 131). (Also listed as BA 220.)

ECO 270 Environmental and Natural Resource Economics (4 SH). A study of how the economic system depends on the environment and how the environment is influenced by the economic system. Topics include: economic analysis of common resources; economic analysis of depletable and renewable natural resources; the population problem; economics of pollution; the economic valuation of environmental goods; and ecological economics.

ECO 310 Intermediate Microeconomic Theory (4 SH). An intensive theoretical examination of specific economic units and of the determination of product and factor prices under various market structures. The course also includes applications of the theory to contemporary economic problems. Prerequisites: ECO 150 and MTH 131 (or equivalent).

ECO 320 Intermediate Macroeconomic Theory (4 SH). An in-depth study of the methods and concepts of national income analysis with particular reference to the role of fiscal and monetary policy in maintaining full employment without inflation. The course also includes discussions of the measurement of economic activity. Prerequisites: ECO 150 and MTH 131 (or equivalent).

ECO 335 The Economics of Sports (4 SH). The course uses the tools of microeconomics and statistics to examine the business and social consequences of sports. Issues such as competitive balance in sports leagues, the role of media, and public subsidies to professional teams are analyzed. Prerequisites: ECO 150 and BA/ECO 220 (or equivalent).

ECO 340 Money and Banking (4 SH). A study of the role of money in an economic system, the operation and evolution of central banking systems, and the functioning of financial institutions. Among the topics presented are the nature and function of money and credit, classes and functions of commercial banks and their operations, the structure and operation of the Federal Reserve System, theories of the value of money, credit control, and monetary policy. Prerequisite: ECO 150.

ECO 350 Economic Development and Growth (4 SH). A theoretical and empirical analysis of the causes of lack of development in the Third World. The course focuses on the major problems currently confronting developing countries, including agricultural development and food production, population growth, income distribution, employment, education, and international economic relationships. The causes of the problems and alternative policy solutions for them are analyzed. Prerequisite: ECO 150.

ECO 365 International Trade and Finance (4 SH). An introduction to theories and policies concerning international trade, open economy macroeconomics, and international finance. Topics include traditional and modern theories of international trade, trade policies in advanced and developing countries, the balance of payments, fixed and flexible exchange rates, arbitrage and hedging, monetary and fiscal policies, currency areas, international debt, and the global capital market. Prerequisite: ECO 150. (Also listed as BA 365.)


ECO 385 Financial Economics (4 SH). The course presents the Black-Scholes theory of options, futures markets, the time value of money, the rate of return on investment, cash flow sequence, utility functions, expected utility maximization, mean-variance analysis, value at risk, optimal portfolios, and the capital asset pricing model. Prerequisites: ECO 150 and BA/ECO 220 (or equivalent). (Also listed as BA 385.)
ECO 390 Economics of Health Care (4 SH). A study of the health care system using economic analysis. Major topics that are explored include the structure of the industry, pricing, supply and demand for various services, labor markets for health professions, and public policy issues. Prerequisite: ECO 150.

ECO 590-594 Field Experience/Internship (1–4 SH). Not counted in the minimum number of courses needed in the major. All grading S/U. Prerequisites: six courses in economics and/or business, junior or senior standing, consent of department, and a GPA of at least 2.0.

ECO 601 Econometrics (4 SH). This capstone course emphasizes the creative nature of economics by examining the ways that economists identify issues, test theories and deal with the limitations of their discipline. The course will integrate the student’s previous work with readings that emphasize the range of applications addressed by the discipline. In addition, students will be expected to define an appropriate research topic, learn how others have addressed the issue, and formulate and carry through their own investigation of the topic. Prerequisites: ECO 150, two other ECO courses (except ECO 220), MTH 131, and BA/ECO 220 (or equivalent). (Also listed as BA 330.)

ECO 610, 611 Seminar/Advanced Topics (1-4 SH). A study of relevant topics and techniques pertaining to the current business and economics issues.

ECO 620-624 Independent Study (1–4 SH). Prerequisites: six courses in economics and/or business with at least a 3.250, junior or senior standing, and consent of department.

EDU 203 Multicultural Education (2 SH). The class provides pre-service teachers with opportunities to explore ways to understand and appreciate their own culture and elementary students’ diverse cultures. Since learning occurs in a multicultural world with many ways of knowing, opportunities are needed to critically examine beliefs and classroom practices that value each student’s unique cultural background. Literacy experiences with multicultural children’s literature between pre-service teachers and elementary students build a foundation for future interactions with students. J. Hoellein.

EDU 204 Educational Technology (2 SH). Introduction to the use of production software with special attention to uses teachers would make of the Internet, word processing, spreadsheets, data bases, and presentation graphics. Students are expected to complete projects using each of the described elements singly or in an integrated approach. Ethical use of computer software will be stressed. Economics strand included.

EDU 220 Teaching of Literature and Grammar in Secondary Schools (4 SH). A course in teaching secondary literature and grammar for senior English majors/secondary education minors. Students wishing to teach at the secondary school level survey required course texts and develop strategies for teaching literature, grammar, and writing. In the process, students share research into secondary sources in these areas. They also design group projects and present them to their peers. This course allows future secondary English teachers to combine their experience studying texts, grammar and writing as English majors with their assignments in education courses, preparing them more completely for classroom experience. Prerequisites: Declared English major/secondary education minor and senior standing. (Also listed as ENG 220.)

EDU 231 Educational Psychology (4 SH). A study of the teaching and learning process for students preparing to teach children and adolescents. The units of the course include learning, instruction, human development, motivation, management, assessment and the learner. A practicum with children
and/or adolescents is included. This course is offered by the Department of Education and does not count toward a psychology major, minor or as a course within the discipline. Staff.

EDU 311 Teaching Science in the Schools (4 SH). Introduction to the content and methods of science in the PreK-8 schools. Careful attention is given to the organization and conduct of meaningful science learning experiences at the various age levels. The roles of inquiry and discovery teaching, hands-on-learning activities, and current research are studied as they relate to children’s acquisition of science concepts. Special attention is given to the treatment of values in science. Prerequisites: life science and physical science or permission of instructor. For Early Childhood PreK-4/ Special Education PreK-8 majors. C. Clarke.

EDU 351 Reading in the Content Areas (4 SH). This course is an overview of the reading and writing processes with an emphasis on assessment and the application of the strategies used to teach reading and writing in the content area. This course includes a tutoring component with middle and high school students in reading and writing in the content areas. E. Morelli, T. Martin.

EDU 451 Teaching in the Secondary School (4 SH). The senior level course in preparing the student for student teaching and for professional experiences seeks to develop competencies in the following: formulation of instructional objectives; organization and evaluation of learning experiences; preparation of lesson plans; use and preparation of instructional materials; use of educational media; development of techniques for whole class, small group, and individual instruction, including strategies for inclusion; videotaped experiences in microteaching; methods of teaching applied to academic areas; the role of the teacher; development of a philosophy of education; study of the role of the professional organizations; and the ethics of the teaching profession. Graded S/U. J. Hoellein, D. Huey.

EDU 452 Student Teaching and Seminar-Secondary (16 SH). A supervised course in student teaching open to secondary education majors who have completed the pattern of required courses. Students are required to participate in related evening/Saturday morning seminars. In addition to the regular tuition and fees, there is a student teaching fee. Prerequisite: Completion of all certification courses.

EDU 562-572 Early Childhood PreK-4 Education Field Experience II (2 SH). This course is an off-campus experience in PreK-8 school setting intended to provide the student with opportunities to participate with teachers and children in classrooms. For Early Childhood PreK-4/ Special Education PreK-8 majors. Prerequisites: Must have completed at least one semester and one education course at Westminster College and have a GPA of at least 2.800. Graded S/U.

EDU 582–592 Field Experience—Secondary Education (2 SH). An off-campus experience in secondary school with opportunities to participate with teachers and adolescents in grades 7-12. For secondary education minors. Prerequisites for first field experience: completed at least one semester and one education course at Westminster College and have at least a 2.500 GPA. Graded S/U.

EDU 610, 611 Advanced Topics (4 SH).

EDU 620-624 Independent Study (1-4 SH).

EDU 660, 670, 680, 690 Honors Project (1-4 SH). (See p. 61.)

ENGLISH LANGUAGE LEARNERS

ELL 206 English Language Learners (3 SH). The course is designed to infuse the teachers competencies related to meeting the instructional needs of English language learners. The course will explore the language, culture, standards-based instruction, assessment, and professionalism in order to understand and teach linguistically diverse learners effectively. Certification students PreK-12 are required to take this course. S. Kang.
ENGLISH

ENG 101–151 Studies in Literature (4 SH). Studies in English, American, world or comparative literature, or in specific literary genres and themes. Individual sections experiment with different approaches and topics. The times and a brief description of each course is provided each semester. These courses are designed primarily for non-English majors. More than one ENG 101–151 may be taken for credit, as long as each course is different. Designated 101–151 courses receive Intellectual Perspective credit.

- ENG 101 Biography/Autobiography
- ENG 102 C: Children’s Literature
- ENG 103 Love Literature
- ENG 104 War Literature
- ENG 105 Who Am I?
- ENG 106 Evolution
- ENG 107 Detective Fiction
- ENG 108 American Playwrights
- ENG 109 The Sporting Spirit
- ENG 110 Holocaust Literature
- ENG 111 Women Writers
- ENG 112 Adaptation of Literature/Film
- ENG 113 Shakespeare
- ENG 114 The Study of the Short Story
- ENG 115 Myths, Models and Metaphors
- ENG 116 It’s Monstrous
- ENG 117 The Western in Film and Fiction
- ENG 118 Faith Literature
- ENG 119 Arthurian Legend
- ENG 120 Law Literature and Film
- ENG 121 Fathers and Sons
- ENG 122 The Study of Poetry
- ENG 123 Gay Literature
- ENG 124 African American Drama
- ENG 125 Adventures in Medieval Literature
- ENG 126 Canadian Literature
- ENG 127 British Literary Legacies: Circles and Sites
- ENG 128 Freud, Fantasy, and Interpretation
- ENG 129 Hispanic American Literature
- ENG 130 Literature of the Sea
- ENG 131 Nature Writing
- ENG 132 Native American Literature
- ENG 133 Adolescent Literature
- ENG 134 Shake, Rattle & Roll: Natural Disasters on Film
- ENG 135 Southern Writers
- ENG 136 Classic Greek Literature
- ENG 137 Genetics in Literature
- ENG 138 19th Century Literature
- ENG 139 Literature of 18th Century England
- ENG 140 Utopian/Dystopian
- ENG 141 The Journalist in Literature & Film
- ENG 142 Fantasy, Fairytales, and Folklore
- ENG 143 Translation
- ENG 144 Contemporary Literature
- ENG 145 African Literature
- ENG 146 Mind Reading: Literature and Psychology
ENG 201 English Grammar (4 SH). A study of contemporary approaches to grammatical terminology and analysis, designed primarily for prospective elementary and secondary teachers.

ENG 220 Teaching of Literature and Grammar in Secondary Schools (4 SH). A course in teaching secondary literature and grammar for senior English majors/secondary education minors. Students wishing to teach at the secondary school level will survey required course texts and develop strategies for teaching literature, grammar, and writing. In the process, students will share research into secondary sources in these areas. They will also design group projects and present them to their peers. This course allows future secondary English teachers to combine their experience studying texts, grammar and writing as English majors with their assignments in education courses, preparing them more completely for classroom experience. Prerequisites: Declared English major/secondary education minor and senior standing. (Also listed as EDU 220.)

ENG 240 Seminar: Introduction to Literary Studies and Critical Theory, Part I (4 SH). This course is designed to immerse entering English majors and minors in the materials, methods, and current issues of the discipline. Working primarily with British literature, students are introduced to a variety of critical approaches they will continue to use in upper level English courses. A variety of written and oral assignments help students develop their skills in the discipline. It is suggested, though not required, that students take this course before taking ENG 250. Required of all English majors and minors.

ENG 250 Seminar: Introduction to Literary Studies and Critical Theory, Part II (4 SH). This course is designed to immerse entering English majors and minors in the materials, methods, and current issues of the discipline. Working primarily with American literature, students are introduced to a variety of critical approaches they will continue to use in upper level English courses. A variety of written and oral assignments help students develop their skills in the discipline. It is suggested, though not required, that students take this course after taking ENG 240. Required of all English majors and minors.

ENG 301-351 Studies in Context (4 SH). Prepared by the Introduction to Literary Studies and Critical Theory courses to read individual works closely, students at the 300s level investigate the relationship between texts and the contexts within which they are produced. While these context courses are not seminars, they still call for the development of self-awareness and, consequently, self-reliance. Identifying cultural contexts that are both familiar and foreign challenges students to take part in an investigation of their reading and writing experiences in ways that recall, broaden, and deepen the investigations begun in ENG 240. Through the context courses, majors explore their own cultural context and the cultural assumptions that permeate their ways of making and responding to texts. Here they also experience other students’ ways of reading and assessing texts through the processes of collaborative writing and peer review, used at this level to nurture the community of learners established in ENG 240 and fostered by Experiential Studies. Prerequisite/co-requisite: successful completion of ENG 240 and 250.

ENG 301 Shakespeare & Co.
ENG 302 American Landscape
ENG 303 The Victorians
ENG 304 Literary Letters
ENG 305 The Beats
ENG 306 Social Drama
ENG 307 The Family
ENG 308 Tragic Vision
ENG 309 Irish Renaissance
ENG 310 Jane Austen
ENG 311 John Updike’s *Rabbit: A View of Modern America*
ENG 312 Women Writers
ENG 313 Children’s Literature
ENG 314 American Modernism
ENG 315 Winds of Change
ENG 316 Pan American Literature
ENG 317 Traditions
ENG 318 African-American Literature
ENG 319 After Crusoe
ENG 320 International Voices
ENG 321 American Best Sellers
ENG 322 Love Literature
ENG 323 Emerson & Thoreau
ENG 324 Whitman & Dickinson
ENG 325 World Fiction
ENG 326 Contemporary Poetry
ENG 327 British Drama
ENG 328 The Empire Writes Back
ENG 329 American Gothic
ENG 330 All the King’s Men
ENG 331 The Roaring Twenties
ENG 332 Autobiography/Biography
ENG 333 Confessions
ENG 334 The London Novel

ENG 401–451 Seminars (4 SH). These seminars study literary texts from several critical and theoretical stances. The courses help students develop strategies for assessing the ways that meaning becomes evident in texts, in readers, and in writers. In addition to reading and interpreting texts within contexts, the 400s seminars regard works through or in the light of perspectives offered by critical theories. Not only do students in these seminars complete a higher degree of creative and critical thinking, but they also participate more fully in leading the courses. The inquiry into theory, and when appropriate, its application, stresses independent assessment, peer evaluation, and assertion of ethical choices as they pertain to meaning and contexts. Prerequisite: successful completion of at least two ENG 300s courses.

ENG 401 Drama Criticism
ENG 402 Narrative Theory
ENG 403 Cultural Criticism
ENG 404 Film Criticism
ENG 405 Feminism
ENG 406 Poetics
ENG 407 Byron in Context
ENG 408 Reader Response
ENG 409 Textual Criticism
ENG 410 Art and the Artist
ENG 411 Ecocríticism
ENG 412 Ulysses
ENG 413 Dickens & Eliot
ENG 414 Tragedy
ENG 415 John Irving
ENG 416 Gender in Literature
ENG 417 The Epic
ENG 418 Shakespeare: The History Plays
ENG 419 Shakespeare: The Tragedies
ENG 420 Romanticism
ENG 421 Sylvia Plath & Feminism
ENG 422 Psychoanalysis, Gender and Culture
ENG 423 Hemingway and Faulkner
ENG 424 Taken!—American Captivity Narratives
ENG 425 Modern American Poets
ENG 426 Medieval Literature
ENG 427 Empire, Revised
ENG 428 Shakespeare
ENG 429 Forming Content

ENG 590-594 Field Experience/Internship (1-4 SH). These courses are designed to foster on-campus or off-campus participation in a variety of areas. Students select experiences under the guidance of an adviser and are encouraged to consider community service projects as well as more traditional internships and field experiences related more closely to the English major. Prerequisite: junior standing.

ENG 601 English Capstone: Advanced Study I (4 SH). A course concentrating on the advanced bibliographical tools available to students of literary texts. Students will review, expand, deepen, and broaden their familiarity with library resources and research methods suited particularly to the creation and study of literary texts. The course will culminate in each student’s production of a comprehensive proposal for the final independent study project to be completed as part of the requirement for ENG 602. (See also guidelines for College Honors in English.) Prerequisites: advanced junior standing and permission of the department. Prerequisite/co-requisite: ENG 400.

ENG 602 English Capstone: Advanced Study II (4 SH). An independent study, supervised by a department member, which completes the research proposal developed in ENG 601. The student produces a major paper, series of essays, and creative work and presents the results to the department in an appropriate forum. Prerequisites: successful completion of ENG 601 and senior standing.

ENG 620-624 Independent Study (1-4 SH).
ENG 660, 670, 680, 690 Honors Project (1-4 SH). (See p. 61.)

ENVIRONMENTAL STUDIES

ENV 101 Environmental Literacy (4 SH). This course aims to teach students about a broad range of environmental issues, inviting them to investigate how the historical and cultural facets of those issues cast light upon certain environmental realities. Drawing from a range of artistic, economic, historical, literary, political, philosophical, and scientific approaches to key environmental concepts, this course invites you to investigate current debates about environmental issues.

ENV 401 Environmental Studies Seminar (4 SH). The Environmental Studies Seminar is an integrative experiential and project-based course that is a capstone experience for all ENV minors. Students are expected to bring their discipline-specific expertise to the group and collaborate on a class project that identifies a problem, examines it from a multidisciplinary perspective and provides practical solutions. Prerequisites: ENV 101 and at least one ENV Group I elective (ES 160, ECO 270 or PS 251) or approval by instructor.
ENVIRONMENTAL SCIENCE

ES 160 Concepts of Environmental Science (4 SH). An investigation of the effect of humans on the Earth’s environment and on the other species that inhabit our planet. The course will look at the impact that an increasing human population has on the resource utilization, pollution production, habitat degradation, and the extinction of species. It will include a brief look at the policies and laws that specifically relate to environmental problems.

ES 230 Chemical Analysis (4 SH). A study of the theoretical foundation and skills necessary for the solution of problems encountered in the area of quantitative chemical analysis, including classical and modern methods. Emphasis is given to the evaluation and presentation of data, sampling, equilibrium dynamics of analytically important reactions, experimental design, volumetric techniques, absorption and emission spectroscopy, electrochemical methods, and analytical separations. Examples and laboratory exercises will include environmental air, soil and water systems. Prerequisites: CHE 117, and MTH 135 or MTH 150 or BIO 206 (may be co-requisite). H. Boylan. (Also listed as CHE 230.)

ES 250 Risk Assessment (4 SH). This course provides an introduction to risk assessment, and includes the characterization of hazard, exposure assessment, the quantification of risk, and the application of risk analysis to environmental decision making. Specific topics will include human and environmental risk assessment, sources of potential hazards, transport and transfer processes, acute and chronic exposure to hazardous substances, and the effects of stressors on individuals, populations, and communities of organisms. Risk assessment will be considered within a regulatory framework, and the limitations of the current risk analysis paradigm will be addressed. Prerequisites: BIO 203 and CHE 117.

ES 360 Ecology (4 SH). A study of the structure of ecological populations, communities, and ecosystems, and the processes that affect them. Topics include population growth, regulation, and dynamics, population interactions, food webs, species diversity, succession, biogeography, and energy flow and nutrient cycling. Laboratories stress experimental design and data analysis. Prerequisite: C- or better in BIO 203. J. Balczon. (Also listed as BIO 360.)

ES 465 Introduction to GIS (4 SH). This course is an introduction to the theory and use of Geographic Information Systems, including the fundamental concepts of GIS, capabilities of GIS, and applications for dealing with spatial data. Key issues for discussion will include data input, data models, database design and database queries, sources of information for spatial databases, spatial analysis, computational algorithms, and information presentation. Other issues such as the nature of geographic phenomena to be represented in a GIS, comparisons of different GIS representational schemes, and appropriate use of geographic information will also be covered. These topics will be discussed within an environmental context using ArcView, a PC-based GIS software package. A. Throckmorton. (Also listed as BIO 465.)

ES 590-594 Internship (1-4 SH). Prerequisites: ES 160 and consent of the Environmental Science Committee for proposed internship.

ES 601 Environmental Science Capstone: Problem Analyses in Environmental Science (4 SH). Interdisciplinary senior research project designed to study an environmental problem from an integrated, multidisciplinary viewpoint. Students work collectively to develop testable hypotheses, design and implement experiments to test their hypotheses, and present their results in comprehensive written and oral reports. Prerequisite: successful completion of all required courses in the major.

ES 620-624 Independent Study (1-4 SH). Prerequisites: completion of an acceptable proposal of an original experimental or observational project dealing with an environmental topic; minimum GPA 2.750 in the major; completion of ES 160; and consent of the ES committee.
ES 660, 670, 680, 690 Honors Research (1-4 SH). (See p. 61. Additional requirements and due dates should be obtained from the environmental science chair. Four additional semester hours of research may count as an elective.)

FRENCH

FR 101 Elementary French I (4 SH). A course designed for students who have had less than one year of French in high school, or who wish to study French as a new language. All four basic language skills – speaking, listening, reading, and writing – are addressed, with particular emphasis on satisfying immediate communicative needs in the language.

FR 102 Elementary French II (4 SH). A continuation of the skills and emphases stated for FR 101. Prerequisite: FR 101 or consent of instructor.

FR 201 Intermediate French I (4 SH). A course designed for students who have a basic background in French. All four basic language skills — speaking, listening, reading, and writing — are addressed, with particular emphasis on developing oral proficiency. Prerequisite: FR 102 or consent of instructor.

FR 202 Intermediate French II (4 SH). A continuation of the skills and emphases stated for FR 201. Prerequisite: FR 201 or consent of instructor.

FR 301 Advanced Conversation and Composition I (4 SH). A course in oral and written practice at the advanced level, designed to develop fluency in speaking and writing French. The emphasis is on the reading of cultural and literary texts, as well as current periodicals, which serve as the basis for group discussion and for writing short essays. Prerequisite: FR 202 or consent of instructor.

FR 302 Advanced Conversation and Composition II (4 SH). A continuation of the skills and emphases stated for FR 301. Prerequisite: FR 301 or permission of instructor.

FR 303 Commercial French (4 SH). An introduction to the technical vocabulary of international business, including the writing of business letters and the translation of magazine articles using the computer. Authentic documents and videos are used. The course also studies advertising images, immigration, and business ethics in their cultural and historical context. A competency examination is given at the end of the course. Prerequisite: FR 302 or consent of instructor.

FR 351 French Culture (4 SH). An introduction to major French social institutions in their historical context. The course examines the various factors (historical, social, economic, artistic) that have shaped contemporary cultural identity. The arts and popular culture are included. Prerequisite: FR 302 or consent of instructor.

FR 401 The Age of Louis XIV (4 SH). An examination of the works of such Baroque and Neoclassical authors as De LaFayette, Racine, and Moliere. Prerequisite: FR 302 or consent of instructor.

FR 402 Studies in 19th Century France (4 SH). A study of 19th century French literature within its cultural and artistic context. Authors such as Balzac, Sand, and Flaubert are included. Prerequisite: FR 302 or consent of instructor.

FR 403 France in the Modern Era (4 SH). An introduction to 20th century French literature that studies texts in their relationship to the society and artistic movements out of which they emerge. Authors such as Gide, Camus, and DeBeauvoir are included. Prerequisite: FR 302 or consent of instructor.
FR 408, 409 Topics in French (4 SH). An in-depth study of the literature of a specific area, genre, or time period, as determined by the instructor. Topics often focus on gender and/or cultural issues. 
Prerequisite: FR 302 or consent of instructor.

FR 590-594 Field Experience/Internship (1-4 SH). Prerequisite: FR 301 or consent of instructor.

FR 601 French Capstone (4 SH). A course required of all French majors. The course will examine in some depth a topic in the language, literature, or culture of the French-speaking world. Both classic works and some that are less well known (especially by women and minorities in less industrialized societies) will be examined. Literature, film, and cultural theory are included; methodology is interdisciplinary. Plenary sessions for this course are combined with those of German and Spanish, and are taught in English; however, French majors will also do independent research under the direction of a member of the French faculty and will write their final paper in French.

FR 620-624 Independent Study (1-4 SH). Courses designed for advanced students who are capable of undertaking individual projects in French language or literature. A comprehensive report or scholarly paper in French is required. Prerequisites: completion of at least three French courses numbered 351 or higher and consent of the department chair.

FR 660, 670, 680, 690 Honors Project (1-4 SH). (See p. 61.)

**FILM STUDIES**

FS 101 Introduction to Film Studies (4 SH). This course focuses on the major language systems of film: photography, mise en scene, movement, editing, sound, acting, sets and costumes, writing and narrative structure, and ideology. Emphasis is on how formalist and realist filmmakers use these language systems to create meaning. Through lecture, reading, discussion, and screening of films, the students will become more informed, sophisticated, active observers of cinema.

FS 102 History of Film: A Survey (4 SH). This course is designed for students to develop a greater comprehension of the historical evolution of cinematic art. Though the course focuses primarily on cinema in the United States, some important and representative films from other countries will be studied. In addition, emphasis will be given to films that represent the development of film as an industry and how this corresponds to (and conflicts with) artistic endeavor. Students will write analyses of both films they watch for the course and films they choose to watch on their own. In keeping with the goals of the course, these analyses will require the students to fit the films into the context of cinema as a greater whole and to demonstrate an understanding of film as both art and industry. In addition, mid-term and final exams will require students to analyze certain films and their contributions to the development of cinema.

FS 212 Film Adaptation (4 SH). Students will study the challenging process of adapting literature, drama, and true-life stories to film—what goes, what stays, and what changes. By working closely with different types of texts, students discover how the texts complement each other and how they often resist each other. (Also listed as ENG 112.)

FS 256 Screenwriting (4 SH). This workshop gives students the knowledge and tools necessary to write original or adapted screenplays, from the story concept to the final draft. Students will have two or three completed short film scripts or one feature-length script by the end of the semester. Elements covered in the course include the three-act structure, main plot, subplots, scene writing, cohesiveness and momentum, transitions and turning points, conflict, character functions and development, dialogue and description, and theme. Students will also learn to use the Final Draft software program. (Also listed as WRI 256.)
FS 301-399 Selected Topics in Film Studies (4 SH). (May be cross-listed with other disciplines.) Selected topics courses study films in a more specific fashion than a survey course would do; for example, a student might examine the work of a particular director; films united by a particular theme, philosophy, or discipline; or films produced during a specific historical period. They will help students develop strategies and skills for assessing the accomplishments of filmmakers and their films and to understand how film may fit into a larger context. Thus, the Topics courses may be taught from the point of view of any discipline or theoretical approach so as to view the infinite possibilities of film. Students will apply and further develop skills they have learned in introductory courses to achieve a higher level of critical thinking regarding their comprehension of the film text.

FS 304 War Literature and Film (Also listed as ENG 104.)
FS 305 Alfred Hitchcock
FS 306 Cultural Anthropology (Also listed as SOC 105.)
FS 307 Detective Fiction: Novels and Film (Also listed as ENG 107.)
FS 308 A Survey of Italian Film: The Southern Question (Also listed as IC 105.)
FS 309 The Sporting Spirit (Also listed as ENG 109.)
FS 310 England: The Age of Empire (Also listed as HIS 132.)
FS 312 Advanced Topics in Film and History (Also listed as HIS 312.)
FS 316 It's Monstrous (Also listed as ENG 116.)
FS 323 African American History (Also listed as HIS 223.)
FS 324 African American Drama and Film (Also listed as ENG 124.)
FS 334 Shake, Rattle and Roll: Natural Disasters on Film (Also listed as ENG 134.)
FS 336 Classic Greek Literature and Film (Also listed as ENG 136.)
FS 340 Gay & Lesbian Film and Literature (Also listed as ENG 123.)
FS 341 The Journalist in Film (Also listed as ENG 139.)
FS 342 Film Genres
FS 347 Disability in Literature and Film (Also listed as ENG 147.)
FS 348 Sexuality in Film and Literature (Also listed as ENG 148.)

FS 404 Film Criticism (4 SH). This course teaches the basic concepts and critical approaches involved in interpreting film. Some of the approaches include humanism, auteurism, genre, social science, historicism, semiology, structuralism, Marxism, and feminism. Integrating these critical approaches with the language systems of film, students will increase their own appreciation of motion pictures, intelligently discuss these texts with others, better understand what filmmakers are saying as well as how they are saying it, and analyze how film texts both influence and reflect the culture in which they are made.

FS 501-502 Film Studies Practicum (2 SH). The purpose of the Film Studies Practicum is to give students an opportunity to learn more about international films, directors, and cultures. The International Film Series provides a perfect forum for the practicum since the focus is on foreign film industries and their product. Students will actually take charge of the International Film Series: researching films for each semester’s lineup, presenting background information for the audiences, and leading group discussions after the films. Students will also be responsible for developing advertising for the series and sending out reminders for each viewing. The practicum experience each semester will culminate in a term paper, a critical analysis of one or more of the films presented in that semester. Students will take the practicum for two credits during each semester of the senior year (or two semesters total as required by extenuating circumstances, such as study abroad).

FS 590-594 Field Experience/Internship (1-4 SH).
FS 620-624 Independent Study (1-4 SH).
GEOLOGY

GEL 110 Geology of the Environment (4 SH). An investigation on how geologic processes affect us, other living forms, and our environment. Geologic processes may create hazards through earthquakes, volcanoes, flooding, and landslides. Actions by humans can create hazards in our geological environment, for example, mine subsidence. The laboratory includes field work in the Pennsylvania-Ohio border region.

GEL 121 General Geology (4 SH). An introductory study of the earth, its materials, its structure, the forces which act upon it and modify it, human interactions with the earth, and the earth’s history. The laboratory includes field work in the area, as well as in Pennsylvania, Ohio, and West Virginia.

GEOGRAPHY

GEO 101 World Geography (4 SH). An introductory course in world regional geography. The study of our “place” on the planet is related to the National Geography Standards. The course will consider such topics as factors in development and lack of development, economics, plate tectonics, topography, climate, and population. Economics strand included.

GERMAN

GER 201 Intermediate German I (4 SH). A course designed for students who have a basic background in German. All four basic language skills — speaking, listening, reading, and writing — are addressed, with particular emphasis on developing oral proficiency. Prerequisite: at least two years of high school German.

GREEK

GR 101 Fundamentals of Ancient Greek I (4 SH). An introduction to the morphology and syntax of the ancient Greek language, designed for students who have never previously studied it. Although the primary emphasis is on learning the written form of the language, some attention is given to pronunciation.

GR 102 Fundamentals of Ancient Greek II (4 SH). A continuation of the skills and emphases stated for GR 101. Prerequisite: GR 101 or equivalent.

GR 201 Fundamentals of Ancient Greek III (4 SH). A continuation of the skills and emphases stated for GR 101 and 102. Upon successful completion of GR 201, students will be prepared to progress to the reading of either Koine (New Testament) or Attic (Classical) Greek literature. Prerequisite: GR 102 or equivalent.

GR 251 New Testament Readings and Exegesis (4 SH). The reading of selected portions of the New Testament, accompanied by further study of the distinctive features of the Koine Greek dialect and an introduction to textual criticism and exegesis. Prerequisite: GR 201 or equivalent.

GR 590-594 Field Experience/Internship (1-4 SH). Prerequisites: GR 201 and consent of the instructor and department chair.

GR 620-624 Independent Study (1-4 SH). Courses designed for individual advanced students.
These involve guided readings in Greek literature and/or an individual research project resulting in a scholarly paper. Prerequisites: GR 201 and consent of the department chair.

**GENDER STUDIES**

- GS 101 Numbers/Narratives (4 SH). (Also listed as CLC 101.)
- GS 102 Reading the World (4 SH). (Also listed as IC 102.)
- GS 105 A Survey of Italian Film (4 SH). (Also listed as IC 105.)
- GS 107 Sociology of Gender (4 SH). (Also listed as SOC 107.)
- GS 114 Marriage, Family & Sexuality in History (4 SH). (Also listed as HIS 305.)
- GS 123 Gay Literature (4 SH). (Also listed as ENG 123.)
- GS 129 History of Women in Modern Europe (4 SH). (Also listed as HIS 129.)
- GS 141 Images of Women (4 SH). (Also listed as CLC 141.)
- GS 201 Interpersonal Communication (4 SH). (Also listed as COM 201.)
- GS 215 Women in Cross-Cultural Perspective (4 SH). (Also listed as SOC 215.)
- GS 241 Sociology of Violence and Nonviolence (4 SH). (Also listed as SOC 241.)
- GS 312 Women Writers (4 SH). (Also listed as ENG 312.)
- GS 331 Psych of Women (4 SH). (Also listed as PSY 331.)
- GS 306 Gender and Family (4 SH). (Also listed as SOC 306.)
- GS 307 The Family (4 SH). (Also listed as ENG 307.)
- GS 310 Sociology of Sport (4 SH). (Also listed as SOC 307.)
- GS 405 Feminism (4 SH). (Also listed as ENG 405.)

**HISTORY**

- HIS 101 History of Civilization to 1715 (4 SH). A study of the development of civilization with emphasis on ancient, medieval, and early modern societies. The course includes political, economic, socio-cultural, and religious perspectives on major historical personalities and events.

- HIS 102 History of Civilization from 1715 (4 SH). A study of civilization from the death of Louis XIV to the present. The course emphasizes the political and cultural developments of Western society, including the influences of rationalism, industrialism, and nationalism.

- HIS 105 America to 1877 (4 SH). This course covers the birth of America in Europe, and traces the development of a new society based on the encounter of three major cultures: the red, the white, and the black. The course includes a detailed examination of the American Revolution, the creation of a new nation under the Constitution, westward expansion, Jacksonian democracy, sectionalism, slavery, economic development, changes in family and women’s roles, Romanticism, religion, reform, and the Civil War.

- HIS 106 America since 1865 (4 SH). A survey of American history from the end of the Civil War until the present. Major topics addressed include Reconstruction, immigration, urbanization and the rise of large-scale industry, World War I, the Great Depression, World War II, the Cold War, and de-industrialization. Major themes include the changing role of women; the changing place of African Americans in US society; the interplay of economic development, demographics, and social structure; and the role of the United States in the world. This course seeks to put US history within a global context, while also exposing students to historiographical questions in an introductory fashion.

- HIS 202 Native American Culture and the Frontier Experience (4 SH). This course will focus on the encounter and conflict between the Native American people who inhabited the Americas and the Europeans and then Americans who challenged them for the land. The course will address
the nature and history of a frontier that has moved and changed continuously since 1492. The
course will also investigate the way the physical environment was transformed by the Europeans
and Americans, and how the cultures of both were influenced by the other. Sources will include
historical narratives, original documents, literature and film.

HIS 210 History of Pennsylvania (4 SH). This course will examine the social, economic, and
political lives of Pennsylvanians from the period of European settlement to the recent economic and
social changes resulting from the demise of large-scale manufacturing and the rise of the service
economy. Particular attention will be paid to western Pennsylvania and its role in the development
of the commonwealth.

HIS 221 History of U.S. Popular Culture (4 SH). A survey of popular expression in art, music,
literature, theatre, sports, newspapers, magazines, cartoons, comics, advertising, travel, vaudeville,
radio, television, and movies. Distinguishing among elite, popular, mass, and folk culture, the course
examines the cultural development of the American people through those forms of expression which
have been neither narrowly intellectual nor creatively elitist.

HIS 222 Social and Intellectual History of the United States (4 SH). A study of the major currents
of the intellectual and social development of the United States. Topics include the development
of public and private education, American philosophers and their thought, the relationship
between religion and science, the evolution of social behavior, technological development and its
consequences, and main currents within the arts.

HIS 223 African-American History (4 SH). A survey course beginning with the African background
and tracing African-American history to the present. Emphasis is placed on understanding the
development of an African-American culture through the words and experiences of contemporaries.

HIS 225 From Elvis to Watergate: American History from 1945-1974 (4 SH). This course will
focus on the politics and culture of America from the end of 1945 to the resignation of Richard M.
Nixon. Through lectures, reading, discussion, research, and presentations, students will explore
this fascinating period. Special topics will include the Civil Rights movement, the war in Vietnam,
campus unrest, the various liberation movements, and the many other significant transformations
of the period.

HIS 226 The American Civil War (4 SH). A study of the causes, events, and consequences of
the American Civil War, with emphasis on the comparative strategy and tactics of the North and
the South and the major personalities that shape the results. The course also covers the social and
cultural conditions during the war. The reading of novels about the period, both contemporary and
modern enhances the study of both military and non-military aspects of war, and helps us appreciate
the current meaning of the war for Americans.

HIS 229 History of U.S. Foreign Relations (4 SH). An examination of the nature of American
foreign policy from the Revolution to the present with emphasis on the rise of the United States
as a world power. What influence did individual policy makers, domestic events, and perceptions
about foreign cultures have on diplomacy?

HIS 232 Ancient Greece (4 SH). A study of the political and cultural history of ancient Greece to
the end of the Hellenistic age.

HIS 233 Rome (4 SH). A study of Roman political and cultural history to 565 A.D. Special attention
is given to the development of Roman political, social, and religious institutions.

HIS 234 Early Christianity: Christ and Caesar (4 SH). An examination of the history of the
Christian Church within the environment of the Roman Empire during the first five centuries of its
existence, and of the interaction of the Church with that environment in its political, socioeconomic,
religious, and cultural aspects. (Also listed as REL 131.)
HIS 235 The Middle Ages, 300-1300 (4 SH). A socio-cultural examination of the development of early European society. Beginning with a basic definition of medieval society, the course emphasizes the emergence of feudalism, the middle classes, urban centers, and the earliest forms of the nation-state.

HIS 240 Renaissance and Reformation, 1300-1600 (4 SH). A study of the emergence of modern European civilization. Beginning with a review of early European society and institutions, then traces their replacements by the national state, capitalism, and the reformed churches.

HIS 241 Early Modern France, 1600-1815 (4 SH). This period in European history witnesses the radical changes in politics, thought, society, and warfare. Special emphasis is given to absolutism, enlightenment, the French Revolution, Napoleon, the rise of the middle class, and the importance of science and technology.


HIS 243 England: The Age of Empire (4 SH). A study of the emergence of modern England, with emphasis on the development of political democracy, the rise and fall of the British Empire, and the social and cultural history of the Victorian Age.

HIS 245 19th Century Europe (4 SH). A study of the political, social, economic, and diplomatic background of Europe from the Napoleonic Era to the close of the century.

HIS 246 20th Century Europe (4 SH). A study of the political, economic, and cultural development of Europe from the opening of the century to the present.

HIS 249 History of Women in Modern Europe (4 SH). An examination of the changing roles and social status of women in European history in the 18th, 19th, and 20th centuries. Topics include the Church and gender roles, economy and the workplace, marriage and family, women and politics, and sexuality.

HIS 251 Medieval and Early Modern Russia (4 SH). A study of the political, economic, and cultural development of Russia from the earliest times to 1860.

HIS 252 Modern Russia (4 SH). A study of the late Imperial structure and an analysis of the origin, development, and character of the Soviet state and society. Particular attention will be paid to the post-Soviet period (since the collapse of the USSR in 1991).

HIS 253 The Baptism of Rus: A History of Religion in Russia (4 SH). An introduction to the Eastern Orthodox tradition, with particular attention to how it evolved and was celebrated in Russia. Students will explore the dogmas, liturgy, iconography, and history of the Orthodox Church, and attention will be paid to the relationship between the Church and the State, particularly under communism. Attention will also be given to a comparison of Orthodoxy with Western Christian faiths. (Also listed as REL 211.)

HIS 261 China (4 SH). A study of the civilization and institutions of China from the earliest times to the present, with special attention to revolutionary change in 20th century China.

HIS 262 Japan (4 SH). A survey of the cultural, political, social, and economic history of Japan from the earliest times to the present. Particular attention will be paid to the period since the Meiji Revolution. Topics will include: the Shogunate and the imperial system; Buddhism and Shintoism; Japanese militarism; and Japan as a modern economic power.

HIS 271 Latin America to 1825 (4 SH). A study of Latin America from its Indian beginnings, through the colonial period, to the conclusion of the wars for independence. The influences of the Indian and Iberian cultures on the development of the region are compared.
HIS 272 Latin America from 1825 (4 SH). A study of Latin America from 1825 to the present with emphasis upon its political, cultural, and economic importance in world affairs and upon relations with the United States in particular.

HIS 281 Africa to 1800 (4 SH). A survey of African history from the earliest times until 1800. The course examines major political, economic and cultural developments across the continent, including human origins, the great civilizations of the first millennium, and the slave trade.

HIS 282 Africa since 1800 (4 SH). A survey of African history from 1800 to the 21st century. The course traces the major political, economic, and cultural developments on the continent, including European imperialism, African independence, and Africa in the age of globalization.

HIS 301-399 Explorations in History (4 SH). This series of courses broadens the history curriculum by offering a challenging, yet accessible historical analysis and by providing an intermediate course between the introductory courses and those with prerequisites. Special topics will be taught by individual faculty members in areas of interest to them — areas that might not warrant a permanent offering, but which permit the incorporation of new research material, in-depth analysis, and stimulating readings. The topics will demand that students build up an appreciation for the continuities in one area of analysis. Finally, these courses will give students an opportunity to work beyond the introductory course level.

Since Explorations in History courses are intended primarily for majors and minors in history who have already taken some lower-level courses, enrollment will normally be limited to declared majors and minors in history who have at least junior standing. However, with instructor’s permission, other students may enroll in these courses, as space permits.

Explorations in History courses currently available:

HIS 301 America in the 1960s. This course will focus on the politics and culture of America from the election of John F. Kennedy to the resignation of Richard M. Nixon. Through reading, discussion, research, and presentations, students will explore this fascinating period. Special topics will include the Civil Rights movement, the war in Vietnam, campus unrest, the various liberation movements, and the many other significant transformations of the period.

HIS 302 The American Civil War. A study of the causes and course of the war, with emphasis on the comparative strategy and tactics of the North and South.

HIS 303 The Vietnam War. This course will explore the actual causes of the war, the perception of the causes of the war, the military strategy during the war, the post-war military analysis of its successes and mistakes, the social unrest caused by both “popular” and “elite” opposition to the war, and both the short-range and long-range results of the war (including Hollywood’s rewriting of the war’s history).

HIS 305 Marriage, Family and Sexuality in History. A study of family over time, using legal, cultural, and socio-historical resources. Students will examine the historical roots of current social controversies, including abortion, divorce, child-rearing, family structures, and women’s roles in society.

HIS 306 America in the Age of Revolution. The course explores the American Revolution and the creation of the American republic in the context of global conflict and change in the period from 1763-1825.

HIS 307 Monarchs and Dynasties. This course examines the role dynasties have played in the development of the modern nation-state. To accomplish this objective, students will examine not only institutions such as the royal court, but also will look at the family structure
and anthropology of dynasties. The interplay between the private and the public roles of monarchical rulers is the central concern of this course, which will focus in particular on Russia, the Habsburg Empire, France and Britain.

**HIS 308 Cold War.** The second half of the 20th century was dominated by the rivalry of the United States with the Soviet Union. This course will research such questions as the following: How did this almost deadly confrontation start? How and why did it end? Where were the “hot spots” of the cold war, and why were they there? The course will also look at the domestic impact of the American-Soviet confrontation and explore such questions as how anti-communism affected American culture, Americans’ view of themselves, and ultimately America’s identity.

**HIS 309 Prisons, Asylums, Orphanages, and Other Homes for the Disconnected: The History of American Institutions of Care and Control.** As with most societies, Americans, since our earliest beginnings, have “put people away.” This course will examine both the changing understanding of why people should be institutionalized and the nature, structure, and operations of such institutions.

**HIS 310 Slavery in America.** Slavery is one of the most heavily studied subjects in U.S. history. This course will review the extensive historiography of slavery in the western hemisphere with particular emphasis on the demographics, economics, and social repercussions of “the peculiar institution.” Slavery’s changing nature, from both sides of bondage, will be examined and compared with bound labor in other temporal and geographic settings.

**HIS 311 South Africa.** This course will explore the question of how South Africans can negotiate their past, which was marked by racial inequality and injustice, and form a new non-racial, democratic nation. To answer this question, the interactions of race, class, gender, and culture in South Africa from the 17th century to the present will be examined. Primary documents, films, music, and literature will help to illuminate the interplay between history and memory in South Africa.

**HIS 312 Topics in History and Film.** This course explores, on a rotating basis, advanced themes in history (e.g., nationalism, war and other types of conflict, religion and society, etc.) through the viewing and study of films on historical subjects. The focus of the course is on both the cinematography of the films (i.e., the art and craft of filmmaking) and on matters of the historical accuracy and the historical context of the films. **It is strongly recommended that students who are not history majors or minors take HIS 101 or 102 before taking this course.**

**HIS 410 Historical Methods and Analysis (4 SH).** An introduction to the research methods of the historian. This course will examine the nature and use of historical sources (primary and secondary), develop mastery of presentation and reference conventions, and introduce the ancillary historical disciplines (e.g., paleography, numismatics, vexillology, etc.). Although the emphasis is on skills, the course is topical, examining the history of a selected period, event, or culture. Required of history majors (normally taken in the sophomore year), but open also to interested history minors.

**HIS 420 Historiography: An Introduction to the History of Historical Writing (4 SH).** This course will expose students to classic works of history and introduce various schools of thought (e.g., Marxist, structuralist, annalistic, economic, feminist/gender) that characterize modern historical knowledge. Required of history majors (normally taken in the junior year). **Prerequisite:** C- or better in HIS 101, 102, and 410.

**HIS 590-594 Field Experience/Internship (1-4 SH).** **Prerequisite:** consent of the instructor and the department chair.
HIS 601 History Capstone (4 SH). Research in selected topics. This course is required of senior history majors who are not enrolled in the All-College Honors Program.

HIS 620-624 Independent Study (1-4 SH). An opportunity for majors and other qualified students to do independent reading or research in a selected area. Prerequisites: consent of the instructor and the department chair.

HIS 660, 670, 680, 690 All-College Honors Program (1-4 SH). (See p. 61.)

HONORS

HON 201 Honors Seminar (2 SH). The Honors Seminar is a required two-semester-hour elective for Honors Scholars and is ordinarily taken in the spring of their sophomore year. The course is designed to provide a sense of community among Honors Scholars and to provide the opportunity for Honors Scholars to mentor one another as they prepare to engage their various disciplines in their independent research thesis or project. It will focus on research issues relevant to a variety of majors, particularly regarding methodology and critical evaluation of research data and results.

HON 660–690 Honors Project (1-4 SH). These units of project credit are for use by students who are pursuing the Honors Project in an interdisciplinary area. (Students who are pursuing the Honors Project in a single discipline should use the Honors Project numbers listed for that discipline.) Prerequisite: HON 301.

INTERCULTURAL STUDIES

IC 101 The World of Language (4 SH). A study of the world of language from a multicultural perspective. Students will explore language origins, first and second language acquisition, and cross-cultural differences. The course will also cover such topics as body language, gesture, the relationship between language and perception, anthropological foundations, attempts to create a “universal language,” computer language, artificial intelligence, and animal communication.

IC 102 Reading the World (4 SH). An introduction to the study of culture in countries where French, German, and Spanish are spoken. The course uses texts in the broadest sense, including literature, film, advertising, and cultural theory, in order to explore culture from an interdisciplinary perspective. This course examines the specific content and form of these four kinds of texts and the role of gender, race, and social class in shaping them. Special emphasis is given to texts by and about women, minorities, and the Third World.

IC 103 French Freud (4 SH). The course studies Freud’s theories and the development of an exceptionally strong body of psychoanalytic thought in France. In the context of the rationalist heritage with which this nation is often associated, students will examine psychoanalytic thought in essays (including many case studies), fiction, painting, and film produced primarily in France and in Austria, Spain, Mexico and the U.S. Special emphasis will be given to psychoanalysis as a methodology for the study of social groups and movements along with the methodologies frequently employed by the social sciences. The course studies Freud’s analysis of authority figures such as the father and head of state, military, and church in Group Psychology, for example, in light of demographic, statistical, and historical data employed by social scientists such as Theodore Zeldin. The course examines the impact of Freud’s work on feminism and gender studies.
INQUIRY

INQ 103 Introduction to a Liberal Arts Education (4 SH). Inquiry 103 is a course with outcomes and objectives similar to Inquiry 111 as described above, but is designed with the needs and experiences of adult students who are pursuing a degree in the Lifelong Learning Program.

INQ 111 Introduction to a Liberal Arts Education (4 SH). This course introduces Westminster students to the philosophy and practice of a liberal arts education. Students investigate classic and emerging questions which arise out of current social and intellectual concerns and exchange ideas within a supportive learning community. In the first part of the course, students evaluate traditional and contemporary discussions of liberal education and examine the ways liberal education is practiced at Westminster College. In the second part of the course, students apply the methods of a liberal education by investigating issues from multiple disciplinary and cultural perspectives. Instruction in information literacy and technology supports student research.

LANGUAGE

LAN 101, 102 Elementary (name of specific language) I, II (4 SH). Introductory-level courses in a language not regularly taught in the curriculum (parallel to the courses in French and Spanish numbered 101 and 102).

LATIN

LAT 101 Fundamentals of Latin I (4 SH). An introduction to the Latin language, designed for students who have had less than one year of Latin in high school, or who wish to study Latin as a new language. Although the main emphasis is on the written form of the language, some attention is given to oral Latin and to vocabulary-building, both in Latin and in English.

LAT 102 Fundamentals of Latin II (4 SH). A continuation of the skills and emphases stated for LAT 101. Prerequisite: LAT 101 or at least one year of high school Latin.

LAT 201 Fundamentals of Latin III (4 SH). A rapid review of basic Latin morphology and syntax, followed by the study of more complex Latin syntax, reinforced by the reading of adapted Latin prose texts. Prerequisite: LAT 102 or at least two years of high school Latin.

LAT 202 Introduction to Latin Literature (4 SH). The reading of short selections from various genres, including both prose and poetry. Prerequisite: LAT 201 or at least three years of high school Latin.

LAT 301 Latin Composition Skills (4 SH). Practice both in translating short selections of English prose into idiomatic Latin and in writing original Latin prose, accompanied by a further study of Latin syntax. This course is designed for Latin majors and minors, but is open to other interested and qualified students. Prerequisite: LAT 201 or equivalent.

LAT 351 Roman Civilization (4 SH). A survey of the most prominent aspects of imperial Roman civilization, such as political and civic life, social structure, lifestyles of the various social classes, popular entertainments, religion, and education. Although most readings are done in English, students will also read, in either original or adapted Latin, selected texts (both literary and inscriptional) that illustrate various aspects of Roman civilization. Prerequisite: LAT 201 or equivalent.

LAT 401 Pre-Augustan Literature I (4 SH). The reading of selections from one or more of the following authors of the 2nd and 1st centuries B.C.: Plautus, Terence, Catullus. Prerequisite: LAT 201 or equivalent.
LAT 402 Pre-Augustan Literature II (4 SH). The reading of selections from one or more of the following authors of the 2nd and 1st centuries B.C.: Cicero, Sallust, Julius Caesar. Prerequisite: LAT 201 or equivalent.

LAT 403 Literature of the Augustan Age I (4 SH). The reading of selections from one or more of the following authors of the Augustan Age: Horace, Ovid, Vergil (pastoral lyric). Prerequisite: LAT 201 or equivalent.

LAT 404 Literature of the Augustan Age II (4 SH). The reading of selections from Livy and Vergil (the Aeneid). Prerequisite: LAT 201 or equivalent.

LAT 405 Post-Augustan Literature I (4 SH). The reading of selections from one or more of the following authors of the 1st and 2nd centuries A.D.: Martial, Juvenal, Petronius. Prerequisite: LAT 201 or equivalent.

LAT 406 Post-Augustan Literature II (4 SH). The reading of selections from one or more of the following authors of the 1st and 2nd centuries A.D.: Pliny the Younger, Suetonius, Tacitus. Prerequisite: LAT 201 or equivalent.

LAT 590-594 Field Experience/Internship (1-4 SH). Prerequisites: at least one Latin course numbered 202 or higher and consent of the instructor and the department chair.

LAT 601 Latin Capstone (4 SH). This course is required of senior Latin majors who are not enrolled in the All-College Honors Program.

LAT 620-624 Independent Study (1-4 SH). Courses designed for advanced Latin students. These involve guided readings in Latin literature and/or an individual research project resulting in a scholarly paper. Prerequisites: completion of at least two Latin courses numbered 301 or higher and consent of the department chair.

LAT 660, 670, 680, 690 All-College Honors Program (1-4 SH). (See p. 61.)

**LAW**

LAW 590 Law Internship (1-4 SH). Prerequisites: sophomore standing, a 2.500 GPA, and approval of Law PAC. See the pre-law adviser (Dr. Edward S. Cohen) for further information.

**MEDIA ARTS**

MA 109 Computer Graphic Art I (4 SH). This introductory studio course will explore the nature of digital imaging as an artistic tool. Students will develop an interaction with the computer as a creative medium and gain an understanding of fundamental terminology and technical issues in computer graphics. Presentations and discussions will introduce the incorporation of computer-generated imagery into the artistic disciplines of graphic design, illustration and photography. Students will use an IBM platform and Adobe software.

MA 207 Graphic Design Applications (4 SH). Graphic Design is an introductory studio course that will explore the nature of visual communications as it relates to the commercial world of advertising and illustration. Students will develop technical skills with basic materials and computer art. Fundamentals in art elements and design theory will provide the student with a working knowledge of the language of art. Studio projects will be focused upon theory as it relates to visual communications.
MA 209 Computer Graphic Art II (4 SH). Computer Graphic Art II is an intermediate level studio course that will continue with the work completed in the prerequisite course ART 109 Computer Graphic Art I. Students will explore more thematic centered problems that are associated with both the fine and graphic arts. More advanced levels of performance will be expected as students develop stronger competencies in design software. An emphasis will be upon applications using the integration of illustration, photography and text to create works whose purpose is visual communication. Students will use an IBM platform and Adobe software. Prerequisite: ART 109 or permission of instructor.

MA 220 Moving Media (4 SH). This course introduces you to the tools and concepts of time-based art forms. Students will develop skills working with image, sound and text within audio, video and web-based arts. Visual and media literacy will be increased through exposure to historical and contemporary uses of these media in art and design. You will learn basic skills in software appropriate for each media. Software may include: Audacity, Adobe Premiere Elements, Adobe Dreamweaver, Adobe Photoshop Elements, and other web-based applications, such as WordPress and Blogger.

MA 250 Digital Art Studio (4 SH). This course is a hybrid of traditional art methods and computer manipulated images. Students will create paintings, drawings, and collages that are enhanced with digital editing software. Reversing the process...students begin with a computer generated image/photo and continue to work on it with traditional materials. Students will learn basics of studio art, Photoshop and Elements software, scanning and digital printing to create most unusual and exciting art.

MA 303 Advanced Studies I (4 SH). Courses of study that are taken concurrently with regular studio courses, but structured for advanced levels. Students may select an area to study but must exhaust all related course offerings in their chosen medium before pursuing advanced work. Course work will be structured by the supervising instructor and emphasis will be upon conceptual and technical development within the given medium. Permission of instructor is required prior to registration for the course. Course work is to be organized by the instructor and executed during regularly scheduled courses in the same area. 3.000 GPA in major. Art majors only.

MA 304 Advanced Studies II (4 SH). Courses of study that are taken concurrently with regular studio courses, but structured for advanced levels. Students may select an area to study but must exhaust all related course offerings in their chosen medium before pursuing advanced work. Course work will be structured by the supervising instructor and emphasis will be upon conceptual and technical development within the given medium. Prerequisites: ART 303 and permission of instructor prior to registration.

MA 306 Digital Photography (4 SH). This studio course will investigate formal and aesthetic relationships of traditional and digital photography. Students will learn how to manipulate the traditional photographic print through computer graphics. Additionally, students will be introduced to digital manipulation as an art form as well as to how it is related to graphic design. The language of art and design and design analysis will also be a major component of this course. Prior knowledge of basic computer literacy is recommended.

MA 590-594 Internships (2 SH). Students must have completed their fall sophomore semester and have maintained a 2.000 average in both the major and overall GPA prior to application for an internship. No internships will be approved for the Fall Semester of the senior year. This course will be graded “S/U.” A minimum of 80 hours is required at the internship location.

MA 601 Art Capstone: Theory and Practice (2 SH). Art majors must enroll and complete this course as a graduation requirement. Students will focus their Fall Semester upon the production of their approved thesis projects. Faculty will provide direction and supervision. Offered Fall Semester.

MA 602 Art Capstone: Theory and Practice (2 SH). Art majors must enroll and complete this course as a graduation requirement. Students will focus their Spring Semester upon portfolio
production, exhibition preparation and thesis/project presentations. Faculty and gallery director will provide direction and supervision. Course requirements will be listed in syllabus. **Prerequisite:** ART 601. Students must complete both components as a graduation requirement. There are no incompletes for any segment. If a student is unable to complete one of the above courses, then they may repeat the course when it is next offered by the department. These courses must be completed at Westminster College. Offered Spring Semester.

**MA 620-624 Independent Studies (1-4 SH).** Continued advanced work in an approved field of study. Student must be registered in one of the art majors, carry a 2.500 GPA in major and college courses, junior status. **Prerequisites:** completed all regular courses in field (ex: all painting courses and both Advanced Study courses in same field). Student must have the permission of the supervising instructor prior to registration. Student must submit a proposal for course study to the supervising instructor prior to registration which must be approved by the department chair.

**MATHEMATICS**

**MTH 110 Mathematical Perspectives (4 SH).** An introduction to quantitative concepts and skills, which enable students to interpret and reason with quantitative information. While each section of the course fulfills the quantitative reasoning requirement, the topics covered may vary from section to section.

**MTH 124 Mathematical Perspectives II (2 SH).** This course continues the development of concepts and skills that will enable students to interpret and reason with quantitative information. **Prerequisite:** a C- or higher in MTH 110 or 131 or 135 or appropriate advanced credit.

**MTH 130 Precalculus (4 SH).** A precalculus course for those who need a better foundation in algebraic concepts, functions and graphing. Topics of study include algebra fundamentals, linear and quadratic equations, systems of equations, functions and their graphs. Open only to students who plan to enroll in MTH 131 or MTH 150. This course does not fulfill the all college quantitative reasoning requirement.

**MTH 131 Applied Calculus (4 SH).** A one-semester study of applications of differential and integral calculus with emphasis on polynomials, exponential functions, logarithmic functions, business and economics applications. This course is for individuals with a good high school background in mathematics. This course does not provide the background for a student to continue on to Calculus II. Not available to students who have credit for MTH 150, MTH 152, or MTH 250.

**MTH 135 Concepts of Statistics (4 SH).** An introduction to the concepts of statistics. Topics include graphical and numerical summaries of data, confidence intervals and significance tests about hypotheses. Emphasis is placed on conceptual understanding and interpretation of data and statistics. Not available to students who have credit for BA/ECO 220, PSY 201, SSC 251, BIO 206.

**MTH 150 Calculus I (4 SH).** This course will focus on the fundamentals of differential calculus. Topics considered include functions, limits, continuous functions, differentiation and integration of functions with one real variable, applications of differentiation and the Fundamental Theorem of Calculus. Students will be introduced to some basic calculus proofs. This course is suggested for all students who expect to continue for any advanced degree including finance, law, and medicine.

**MTH 152 Calculus II (4 SH).** This course will focus on the fundamentals of integral calculus, including techniques and applications of integration. Other topics include infinite series and introductory topics from differential equations. **Prerequisite:** MTH 150.
MTH 241 Discrete Mathematics (4 SH). An introduction to discrete mathematics. Topics covered include logic, sets, functions, relations, counting, induction, recurrence relations, graphs, trees, Boolean algebra, and proofs. **Prerequisite:** MTH 150 or MTH 131.

MTH 250 Calculus III (4 SH). An introduction to the calculus of several variables. Topics include the geometry of three-dimensional space, partial derivatives, multiple integrals, and vector calculus. **Prerequisite:** MTH 152.


MTH 261 Linear Algebra (4 SH). An introduction to matrix algebra and general vector spaces. Topics include systems of linear equations, matrix operations and properties, determinants, vector spaces and subspaces, linear transformations, linear independence and span, bases, coordinate systems, eigenvalues and eigenvectors, inner product spaces, and orthogonality. **Prerequisite:** MTH 250.

MTH 302 Probability (2 SH). An introduction to the mathematics of basic probability theory. Topics include general probability concepts, random variables, and discrete and continuous probability distributions. **Prerequisite:** MTH 241, 250.

MTH 321 Numerical Analysis (4 SH). This course explores the development of methods to approximate the solutions to differential equations, zeros of functions, solutions to linear systems of equations, as well as analysis of errors involved in using these methods. **Prerequisites:** MTH 250 and CS 151.

MTH 331 College Geometry (2 SH). An examination of the axiomatic foundations of non-Euclidean and Euclidean geometry. **Prerequisites:** MTH 241 and MTH 250.

MTH 335 Statistics (4 SH). An introduction to the mathematics of statistics. Topics include exploratory data analysis, estimators, estimation, and hypothesis testing. Conceptual statistics and the mathematical development of statistical tests are studied. **Prerequisite:** MTH 241 and MTH 250.

MTH 341 Operations Research (4 SH). An introduction to the major mathematical methods of operations research. Included are linear programs and methods of solutions, network flow models, markov chains and game theory. **Prerequisites:** MTH 250 and MTH 261.

MTH 361 Abstract Algebra (4 SH). A study of algebraic structures and their properties with an emphasis on mathematical writing and the construction of proofs. Topics include groups, rings, fields, homomorphisms, cosets, and quotients. **Prerequisites:** MTH 261 and MTH 241.

MTH 431 Teaching Mathematics in the Secondary School (4 SH). Educational theory, methodologies and instructional models pertaining to the teaching of mathematics on the secondary level, teaching strategies for specific mathematical concepts, recognition and awareness of necessary problem-solving and cognitive skills. The National Council of Teachers of Mathematics standards will be perused and discussed. Much of this will be embedded in the mathematics of geometry. This course is open only to those junior and senior mathematics majors who plan to student teach. **Prerequisites:** MTH 261 and SED 201 or by permission of instructor.

MTH 451 Real Analysis (4 SH). A study of the analytic properties of real functions and sequences. Topics include set theory, the real number system, limits, continuous functions, differentiation, Riemann integration, sequences, and series. **Prerequisite:** MTH 361.
MTH 481 Topology (4 SH). An introductory course covering set theory, continuous mappings, homeomorphisms, connectedness, compactness, metric spaces, product spaces and quotient spaces. **Co-requisite:** MTH 361.

MTH 590-594 Field Experience/Internship (1-4 SH). **Prerequisites:** MTH 261, junior or senior standing and consent of department.

MTH 601 Mathematics Capstone (4 SH). This capstone course, designed for all mathematics majors, offers the opportunity for students to review and integrate their knowledge. The format of the course includes a major presentation. **Prerequisite:** MTH 361.

MTH 610-619 Advanced Topics (4 SH). This course will investigate a new topic in mathematics or provide a deeper study of an existing topic in the mathematics curriculum. A description of the topic will be distributed prior to registration. **Minimum prerequisite:** MTH 250.

MTH 620-624 Independent Study (1-4 SH).

MTH 660, 670, 680, 690 Honors Research (1-4 SH). (See p. 61.)

**MUSIC**

MUS 101 Introduction to Western Music (4 SH). An historical study of the basic elements and major periods of 2,000 years of Western music, major composers and their works, with emphasis on the development of listening skills. Satisfies IP credit in Humanity and Culture.

MUS 102 Introduction to Ethnomusicology (4 SH). Historic survey of music of non-Western societies as it relates to the different cultures. Study of development of instruments, vocal practices and performance media within the specific cultures. Satisfies IP credit in Visual and Performing Arts.

MUS 103 Introduction to Classic Jazz (4 SH). An historical survey of the unique development of jazz from its origins as an African-American art form to its present status as an American art form. The course will be taught in conjunction with HIS 223 (African-American History) course as an approved cluster. Also satisfies IP credit in Visual and Performing Arts.

MUS 104 Introduction to American Music (4 SH). A study of the panorama of American music tracing the origins of indigenous Indian tribal music, to the psalm-singing colonials, to the African slaves. Folk music, opera, popular song, marches, and dance tunes are viewed in their historical contexts. The Singing School movement, shaped-note hymnody, classical music, jazz, and rock are also considered.

MUS 105 Introduction to Opera (4 SH). A study of opera as an art form showing how the various elements (music, dance, drama) come together to form a whole. An introduction to opera including its history, cultural importance, and sociological implications will be presented before an in-depth study of individual works.

MUS 108 Introduction to Musical Theatre (4 SH). An historical study of the development of musical theatre from its origins in opera and operetta to today.

MUS 121 Music Theory 1 (4 SH). Music Theory 1 is the first of four semesters of the music theory sequence. Topics to be covered will include: pitch, pitch class, scales, the basics of rhythm, intervals, triads, seventh chords, two-voice counterpoint, and notation and scoring. Students will also be introduced to technologies used in the study of music theory. In addition, a progressive program for developing aural, sight-reading, and keyboard skills will be initiated, which will be continued through the remainder of the required theory courses. Also included is an introductory
study of the rhythmic procedures in the music of Africa. This course is prerequisite for all other theory courses and may be waived only upon satisfactory performance on the music theory diagnostic exam. There is no prerequisite for this course. Co-requisite: Students must also register for the lab MUS 121L. A letter grade of at least C must be attained in MUS 121 in order for the course to count toward the music major.

MUS 121L Music Theory 1 Aural Skills Lab (0 SH). Music Theory 1 Aural Skills Lab is the first of four semesters of the music theory lab sequence. Topics to be covered will include: pitch, pitch class, scales, the basics of rhythm, intervals, triads, seventh chords, two-voice counterpoint, and notation and scoring. Students will apply their knowledge of these topics by demonstrating their aural skills through melodic, harmonic, and rhythmic dictation, sight-singing, performance, composition, and improvisation. Students will also be introduced to technologies used in the study of aural skills. There is no prerequisite for this course. Co-requisite: Students must also register for the course MUS 121. Note: A letter grade of at least C must be attained in MUS 121 (theory and aural skills combined) in order for the course to count toward the music major.

MUS 122 Music Theory 2 (4 SH). Music Theory 2 is the second of four semesters of the music theory sequence. Topics to be covered will include: SATB voicing, non-chord tones, common-practice harmonic function, phrase and cadence structure, sequences, and secondary dominants. Students will continue to use appropriate technologies for the study of music theory. Also included is an introductory study of the music of China. This course is prerequisite for all other theory courses except MUS 121 and may be waived only upon satisfactory performance on the music theory diagnostic exam. Prerequisite: MUS 121 Music Theory 1. Co-requisite: students must also register for the lab MUS 122L. Note: A letter grade of at least C must be attained in MUS 122 in order for the course to count toward the music major.

MUS 122L Music Theory 2 Aural Skills Lab. Music Theory 2 Aural Skills Lab is the second of four semesters of the music theory lab sequence. Topics to be covered will include: non-chord tones, common-practice harmonic function, phrase and cadence structure, sequences, and secondary dominants. Students will apply their knowledge of these topics by demonstrating their aural skills through melodic, harmonic, and rhythmic dictation, sight-singing, performance, composition, and improvisation. Students will continue to use technologies in the study of aural skills. Prerequisite: MUS 121: Music Theory 1 or satisfactory completion of the Music Theory Diagnostic Exam. Co-requisite: must also register for the course MUS 122. Note: A letter grade of at least C must be attained in MUS 122 (theory and aural skills combined) in order for the course to count toward the music major.

MUS 123 Music Theory 3 (4 SH). Music Theory 3 is the third of four semesters of the music theory sequence. Topics to be covered will include: a review of secondary dominants and leading-tone chords, phrase rhythm and motivic analysis, modulations by common chord, other modulatory techniques, mode mixture, the intensification of the predominant with Neapolitan and augmented sixth chords, enharmonic spellings and modulations, further elements of the harmonic vocabulary, and a brief introduction to the analysis of musical form. Students will continue to use appropriate technologies for the study of music theory. Also included is an introductory study of the music of Korea and Japan. Prerequisite: a grade of C- or higher in MUS 122: Music Theory 2. Co-requisite: students must also register for lab MUS 123L. Note: A letter grade of at least C must be attained in MUS 123 in order for the course to count toward the music major.

MUS 123L Music Theory 3 Aural Skills Lab (0 SH). Music Theory 3 Aural Skills Lab is the third of four semesters of the music theory lab sequence. Topics to be covered will include: a review of secondary dominants and leading-tone chords, modulations by common chord, other modulatory techniques, mode mixture, the intensification of the predominant with Neapolitan and augmented sixth chords, enharmonic spellings and modulations, further elements of the harmonic vocabulary, and a brief introduction to the analysis of musical form. Students will apply their knowledge of these
topics by demonstrating their aural skills through melodic, harmonic, and rhythmic dictation, sight-singing, performance, composition, and improvisation. Students will also continue to use computer assisted instruction in the study of aural skills. **Prerequisite:** MUS 122. **Co-requisite:** students must also register for the course MUS 123. **Note:** A letter grade of at least C- must be attained in MUS 123 (theory and aural skills combined) in order for the course to count toward the music major.

**MUS 124 Music Theory 4 (4 SH).** Music Theory 4 is the fourth of four semesters of the music theory sequence. Topics to be covered will include: new approaches to tonal or centric writing, analysis of non-serial atonal music, analysis of twelve-tone music, neoclassicism, post-1945 serialism, expansion of approaches to rhythm, aleatoric music, sound mass, post-modernism and the use of quotation, minimalism, and present directions in compositional practice. Students will continue to use appropriate technologies for the study of music theory. Also included is an introductory study of the musics of India and Indonesia, particularly as they relate to exoticism in 20th-century European compositions. **Prerequisite:** a grade of C- or higher in MUS 123: Theory 3. **Co-requisite:** students must also register for lab MUS 124L. **Note:** A letter grade of at least C- must be attained in MUS 124 in order for the course to count toward the music major.

**MUS 124L Music Theory 4 Aural Skills Lab (0 SH).** Music Theory 4 Aural Skills Lab is the fourth of four semesters of the music theory lab sequence. Aural skills topics to be covered will include: modal and pentatonic scales; centric and symmetrical constructions; atonal cells; atonal relationships; tertia, quartal, and quintal constructions; serial atonality; tonal and atonal hybrids; as well as the aural identification of significant twentieth-century compositions. Students will apply their knowledge of these topics by demonstrating their aural skills through pitch and rhythmic dictation, sight-singing, performance, composition, and improvisation. Students will also continue to use computer assisted instruction in the study of aural skills. **Prerequisite:** MUS 123. **Co-requisite:** students must also register for the MUS 124. **Note:** A letter grade of at least C- must be attained in MUS 124 (theory and aural skills combined) in order for the course to count toward the music major.

**MUS 125 Form & Analysis (4 SH).** This course is a comprehensive introduction to the study of form in music. The course is based on the premise that form must be perceived aurally, and that the most effective analysis is based on critical listening. Topics covered are the general structural aspects of music, small-scale units of form, and larger-scale units of form. Evaluation will be based on the student’s ability to describe, analyze, and evaluate the function of formal units in various pieces of music in class and in written prose. **Prerequisite:** MUS 124 and 124L, or permission of the instructor. **Note:** A grade of at least C- is required for this course to count toward any major in music.

**MUS 126 Orchestration (4 SH).** Study of the timbres, ranges, transposition, technical characteristics, and idiomatic uses of the instruments of the orchestra. Orchestral families of sound are examined in their individual sound colors and in their contribution to orchestral sound. The final project is an orchestral performance of each student’s final work. **Prerequisite:** MUS 124, or permission of instructor. **Note:** A letter grade of at least C- must be attained in MUS 126 in order to count for graduation as a music education major.

**MUS 127 Modal and Tonal Counterpoint (4 SH).** This course begins with an overview of basic species counterpoint. It turns to multiple-part settings of music in the various polyphonic forms of the Renaissance. Following that, stylistic innovations in counterpoint from the Baroque era are introduced. Forms such as the chorale prelude, invention, and fugue are studied. Evaluation is based on counterpoint exercises and larger-scale projects in which students create their own compositions based on the rules of counterpoint. **Prerequisite:** MUS 124 and MUS 124L or permission of the instructor. **Note:** A grade of C- or higher is required in this course to count toward any major in music.

**MUS 129 Seminar in Music Theory (4 SH).** Topics to be determined. **Prerequisite:** permission of instructor.
MUS 130 Psychology of Music (4 SH). This course considers human behavior from both the psychological and musical perspectives. The course is an introduction to understanding why music exists, why people listen to music, how people understand music, and how social relationships influence musical tastes. In particular, MUS 130 covers theories on the evolutionary origins of music, musical development, music and the brain, music and emotion, the role of music in our everyday lives, social influences on musical tastes, composers with psychological disorders, and a brief introduction to music therapy. This is an introductory course in music cognition; no musical talent or experience is necessary.

MUS 141 History of Western Music to 1750 (4 SH). A historical survey of the development of Western music from primitive sources through the Baroque, with emphasis on composers, styles, and performance practices in relation to the cultural backgrounds. Satisfies IP credit in Humanity and Culture. Prerequisite: All except double majors must have had MUS 121, 122, and 123, or permission of instructor. Note: A letter grade of at least C- must be attained in MUS 141 in order to count for graduation as a music major.

MUS 142 History of Western Music from 1750 (4 SH). A continuation of MUS 141. An historical survey of the development of Western music from the pre-Classic to the present, with emphasis on composers, styles, and performance practices in relation to the cultural backgrounds. Also included is an in-depth study of the historical significance and development of the music of African, Middle Eastern, and Far Eastern cultures. Satisfies IP credit in Humanity and Culture. Prerequisite: All except double majors must have had MUS 121, 122, and 123, or permission of instructor. Note: A letter grade of at least C- must be attained in MUS 142 in order to count for graduation as a music major.

MUS 143 Women in Music (4 SH). This course will examine the history, contributions, and social issues surrounding the role of women in the field of music, from the 10th to the 21st centuries. The acceptance of women as contributors in the field of music has coincided with the acceptance of women as participants and leaders in church and society. The class will examine the music and the lives and surrounding culture of women composers, as well as the lives and contributions of female musicians as performers. R. Lind.

MUS 148 Music in the 20th Century (4 SH). History of music and musicians of the 20th century. Prerequisite: MUS 142 or permission of instructor.

MUS 149 Seminar in Music History (4 SH). Topics to be determined. Prerequisite: permission of instructor.

MUS 160 String Literature (4 SH). A chronological survey of music for strings, from the Renaissance through the 20th century. Prerequisite: permission of the instructor.

MUS 161 Piano Literature (4 SH). A chronological survey of music for piano and harpsichord, from the Renaissance through the 20th century. Prerequisite: permission of the instructor.

MUS 162 Organ Literature (4 SH). A chronological survey of music for the organ, presenting a history of the development of musical styles and forms through the medium of the organ. This history moves from 250 B.C. through the present day. Prerequisite: permission of the instructor.

MUS 163 Vocal Literature (4 SH). A chronological survey of music for solo voice and small vocal ensembles, from the late Middle Ages through the 20th century. Prerequisites: MUS 141 and 142, or permission of instructor.

MUS 164 Choral Literature (4 SH). A chronological survey of music for choirs. An examination of sacred and secular choral music of the Renaissance through the 20th century. Prerequisites: MUS 141 and 142, or permission of instructor.
MUS 165 Opera Literature (4 SH). A chronological survey of operatic music, from 1600 to the present with emphasis upon the form, presentation and relevance of these works in the context of the various historical periods. **Prerequisites**: MUS 141 and 142, or permission of instructor.

MUS 166 Chamber Music Literature (4 SH). A chronological survey of chamber music for strings, piano and winds with emphasis upon the 17th through the 20th centuries. **Prerequisite**: MUS 142 or permission of instructor.

MUS 167 Symphonic Literature (4 SH). A chronological survey of symphonic music, from the pre-Classic period through the 20th century with emphasis on both the aural and analytical understanding of this repertoire. **Prerequisite**: MUS 142 or permission of instructor.

MUS 168 Band Literature (4 SH). A chronological survey of music for bands and wind ensembles, from the Renaissance through the 20th century. **Prerequisite**: MUS 142 or permission of the instructor.

MUS 169 Music Literature: Seminar (4 SH). Topics to be determined. **Prerequisite**: permission of instructor.

MUS 170 Church Music for Youth/Church Music Administrator (4 SH). Designed to teach children, teens and adults to find in worship a means of expressing their love for God and their joy at being included in the family of faith. Topics include the history of church music, integrating the child into worship, organization of choristers, introduction of solfege & Kodaly, primary and junior choirs, and changing voices. Studies will also deal with the administration, organization, and maintenance of a church music program. Groups of students will form teams for at least two presentations during class time. Choral repertory for adult choirs is stressed. **Prerequisite**: sophomore standing in music or permission of instructor.

MUS 172 Worship & Hymnology (4 SH). A study of music and theology in the forms of worship in Judeo-Christian religions. Attention will be given to the history and development of liturgies, the Christian year, and contemporary forms of expression. Special focus will be given to congregational music emphasizing hymns, hymn-tunes, and their evaluation. **Prerequisite**: sophomore standing in music or permission of instructor.

MUS 173 Religion and the Arts. A study of religious themes as they emerge from various forms of the arts. The focus may be on one or more of the following categories: drama, music, art, literature, and/or cinema. (Also listed as REL 122.)

MUS 179 Seminar in Sacred Music (4 SH). Topics to be determined. **Prerequisite**: permission of instructor.

MUS 182 General Music Methods (4 SH). Study of philosophies, principles and practices related to general music instruction in elementary and secondary schools. Examination of contemporary approaches to teaching general music. Analysis of skills, concepts, and materials appropriate to elementary and secondary general music programs. Practice in planning and implementing elements of a comprehensive general music curriculum. **Prerequisite**: MUS 181 or permission of instructor. **Note**: A letter grade of at least B- must be attained in MUS 182 in order to count for graduation as a music education major.

MUS 183 Choral Methods (4 SH). Emphasis on methods and materials for developing comprehensive musicianship through the vocal program of the public school; consideration of the child voice, the changing voice, and the adolescent voice; budgeting and administering the program; planning and preparing for public performance; repertoire for choral groups; preparation of a philosophy of music education. **Prerequisites**: MUS 181 and 182, or permission of instructor. **Note**: A letter grade of at least C- must be attained in MUS 183 in order to count for graduation as a music education major.
MUS 184 **Instrumental Methods (4 SH).** Emphasis on methods and materials for developing comprehensive musicianship through the instrumental program of the public school; techniques for recruiting and organizing performing ensembles; scheduling, budgeting and administering the instrumental program; organizing trips, developing music and equipment inventories, dealing with parent groups and administrators, planning and preparing for public performance; repertory for beginning and advanced ensembles and soloists; preparation of a philosophy of music education; teaching techniques. **Prerequisites:** MUS 181 and 182, or permission of instructor. **Note:** A letter grade of at least C- must be attained in MUS 184 in order to count for graduation as a music education major.

MUS 185 **Integrating the Arts for the Developing Child (4 SH).** Learning about music and other art forms through the performance of various techniques as they relate to the developing child, focusing on pre-K through 4th grade. Students will experience elemental music concepts through singing, playing instruments (including the keyboard lab), moving, active listening, and creating music. Through role playing as both teachers and children, students will learn about music, plus learn how music may be used in conjunction with additional areas of the curriculum, such as the visual arts. Theatre (pretending, dramatization) will be incorporated into class activities, as well. Students will also learn about the elements of visual art, and explore a variety of media as they pertain to early childhood.

MUS 189 **Seminar in Music Education (4 SH).** Topics to be determined. **Prerequisite:** permission of instructor.

MUS 195 **Student Teaching: Elementary (8 SH).** Observation and directed teaching of vocal and instrumental and general music at the elementary level of the public schools, supervised by music personnel of the College and the cooperating schools. Participation in weekly student teaching seminars throughout the semester of student teaching. **Prerequisite:** see “Eligibility Requirements for Admission into Student Teaching” found on p. 123. **Note:** A letter grade of at least B must be attained in MUS 195 in order to count for graduation as a music education major.

MUS 196 **Student Teaching: Secondary (8 SH).** Observation and directed teaching of vocal and instrumental and general music at the secondary level of the public schools, supervised by music personnel of the College and the cooperating schools. Participation in weekly student teaching seminars throughout the semester of student teaching. **Prerequisite:** see “Eligibility Requirements for Admission into Student Teaching” found on page 123. **Note:** A letter grade of at least B must be attained in MUS 196 in order to count for graduation as a music education major.

MUS 200 **Woodwind Pedagogy I (1 SH).** Two hours of class instruction per week on woodwind instruments (flute, clarinet, and saxophone) with emphasis on the development of performance skills, repertoire, teaching methods, and instrument maintenance. Required of all students wishing to teach flute, clarinet, or saxophone private lessons in the Music Intern Teaching Program. Participation in weekly 45-minute Performance Lab required. **Co-requisite:** must also register for MUS 600L. **Note:** A letter grade of at least C- must be attained in MUS 200 in order to count for graduation as a music education major.

MUS 201 **Woodwind Pedagogy II (1 SH).** A continuation of MUS 200, covering double reeds. Required of all students wishing to teach oboe or bassoon private lessons in the Music Intern Teaching Program. Participation in weekly 45-minute Performance Lab required. **Prerequisite:** MUS 200. **Co-requisite:** must also register for MUS 600L. **Note:** A letter grade of at least C- must be attained in MUS 201 in order to count for graduation as a music education major.

MUS 202 **Brass Pedagogy (1 SH).** Two hours of class instruction per week on brass instruments (trumpet, horn, trombone, euphonium, and tuba) with emphasis on the development of performance skills, repertoire, teaching methods, transpositions, basic arranging, and instrument maintenance. Required for all students wishing to teach brass private lessons in the Music Intern Teaching Program. Participation in weekly 45-minute Performance Lab required. **Co-requisite:** must also register for
MUS 600L. *Note:* A letter grade of at least C- must be attained in MUS 202 in order to count for graduation as a music education major.

MUS 203 Percussion Pedagogy (1 SH). Two hours of class instruction per week on percussion instruments (snare, timpani, xylophone, and set) with emphasis on the development of performance skills, repertoire, teaching methods, and instrument maintenance. Required of all students wishing to teach percussion private lessons in the Music Intern Teaching Program. Participation in weekly 45-minute Performance Lab required. *Co-requisite:* must also register for MUS 600L. *Note:* A letter grade of at least C- must be attained in MUS 203 in order to count for graduation as a music education major.

MUS 204 String Pedagogy I (1 SH). Two hours of class instruction per week on violin and viola with emphasis on the development of performance skills, repertoire, and instrument specific teaching methods. Required of all students wishing to teach string private lessons in the Music Intern Teaching Program. Participation in weekly 45-minute Performance Lab required. *Co-requisite:* must also register for MUS 600L. *Note:* A letter grade of at least C- must be attained in MUS 204 in order to count for graduation as a music education major.

MUS 205 String Pedagogy II (1 SH). A continuation of MUS 204, with students learning to play the cello and bass and additional emphasis on maintenance, ability to recognize and choose differing levels of instruments, and classroom teaching skills. Required of all students wishing to teach string private lessons in the Music Intern Teaching Program. Participation in weekly 45-minute Performance Lab required. *Prerequisite:* MUS 204. *Co-requisite:* must also register for MUS 600L. *Note:* A letter grade of at least C- must be attained in MUS 205 in order to count for graduation as a music education major.

MUS 206 Vocal Pedagogy (1 SH). A study of the specific principles of teaching voice, and the fundamentals of phonetics through study of the International Phonetic Alphabet (IPA), articulation, and pronunciation of English vocal and dramatic literature. Required of all students wishing to teach voice private lessons in the Music Intern Teaching Program. *Note:* A letter grade of C- must be attained in MUS 206R in order to count for graduation as a music education major.

MUS 207 Latin and Italian Diction (1 SH). A study of the fundamentals of pronunciation and articulation of Latin and Italian vocal and dramatic literature.

MUS 208 German Diction (1 SH). A study of the fundamentals of pronunciation and articulation of German vocal and dramatic literature.


MUS 210 Piano Pedagogy (1 SH). A study of the specific principles of teaching piano and its literature. Required of all students wishing to teach piano private lessons in the Music Intern Teaching Program. *Prerequisite:* permission of instructor. May be repeated.

MUS 211 Organ Pedagogy (1 SH). A study of the specific principles of teaching organ and its literature. *Prerequisite:* permission of instructor.

MUS 212 Woodwind Instrument Repair (1 SH). Prepare instrumental music teachers to diagnose repair needs, evaluate quality of repair technician’s work, replace and adjust pads, and perform minimal emergency repairs on woodwind instruments.

MUS 213 Brass Instrument Repair (1 SH). Prepare instrumental music teachers to diagnose repair needs, evaluate quality of repair technician’s work, and perform minimal metal repairs (soldering, dent removal, polishing), regulation of rotary valves, etc.
MUS 215 Keyboard Improvisation (1 SH). Figured bass symbols and lead sheet symbols have parallels and contrasts. Both facilitate the notation of musical processes and supply the beginner with a basis for improvisation within prescribed bounds. Students learn to use these two systems encompassing music from the 17th and 18th centuries and jazz and popular music of the 20th century. The course also covers playing basic harmonic modulations in traditional four-part harmony. **Prerequisite:** ability to play piano or organ.

MUS 242 Functional Piano Class (1 SH). Designed to prepare students to take the piano proficiency exam. This is a remedial and introductory course in piano technique for non-piano majors. May be repeated innumerable times, but will not count towards graduation.

MUS 243 Keyboard Harmony (1 SH). Advanced study of traditional harmonic practices as applied to the keyboard; melodic harmonization, realization of figured bass, transposition, improvisation, etc. **Prerequisites:** completion of piano proficiency examination and MUS 123 or permission of the instructor. Offered when need arises.

MUS 244 Accompanying & Coaching (2 SH). A study of interpretations and techniques involved in accompanying and coaching soloists and chamber ensembles, both solo and instrumental. **Prerequisites:** keyboard facility and permission of the instructor. May be repeated for credit. Offered when need arises.

MUS 251 Service Playing (1 SH). A study of the organist’s duties at the console during the worship service. Hymn playing; solo, anthem, and oratorio accompanying; and conducting from the console. **Prerequisite:** permission of the instructor. Offered when need arises.

MUS 261 Music Technology (1 SH). To make the students familiar with the multi-dimensional uses of technology available in music composition, music education, analysis and MIDI capabilities. Music students need not only to understand the music specific software, they must also reinforce their understanding of the capabilities of computer technology in organization and administration necessary for their careers. **Prerequisite:** major or minor in music or permission of the instructor.

MUS 271 Basic Conducting (1 SH). Introduction to basic conducting techniques, including basic frames, baton technique, cueing, score reading and interpretation. Participation in weekly 45-minute Instrumental Performance Lab required. **Prerequisite:** MUS 121. **Note:** A letter grade of B- must be attained in MUS 271 in order to count for graduation as a music education major.

MUS 272 Choral Conducting (1 SH). Choral conducting techniques, including cueing, score reading and interpretation, preparation and delivery of choral rehearsals and performances, with emphasis on organization and techniques of conducting choral groups. Introduction to survey of choral literature. Practice in score reading, rehearsal techniques and conducting performances. **Prerequisite:** MUS 271 with a minimum grade of B-. **Note:** A letter grade of B- must be attained in MUS 272 in order to count for graduation as a music education major.

MUS 273 Instrumental Conducting (1 SH). Instrumental conducting techniques, including cueing, score reading and interpretation, preparation and delivery of instrumental rehearsals and performances, with emphasis on organization and techniques of conducting instrumental groups. Practice in score reading, rehearsal techniques and conducting performances. Participation in weekly 45-minute Instrumental Performance Lab required. **Prerequisite:** MUS 271 with a minimum grade of B-. **Co-requisite:** must also register for MUS 600L. **Note:** A letter grade of B- must be attained in MUS 273 in order to count for graduation as a music education major.

MUS 274 Advanced Conducting (1 SH). Advanced techniques of conducting, including score reading, rehearsal techniques, etc. Both the musical and psychological roles of the conductor will be examined. **Prerequisites:** MUS 272 and 273.
MUS 283 Church Choir Development/Anthem Teaching (4 SH). A study in the techniques of developing a graded choir system, the development of young and adult voices, understanding group dynamics, incorporating appropriate literature, and understanding the use of choirs in worship and liturgy. The development of choral anthem instruction techniques and accompanying in rehearsal and in worship and liturgy. Skills will be developed in conducting from the keyboard. Areas of study will include harmony, form, counterpoint, and hymnody.

MUS 300-399 Private Lessons (2 SH). (See p. 133.)

MUS 397 Junior Recital (2 SH). Students will write analyses of all pieces on recital, prepare program notes, prepare language translations (where appropriate), and pass a Recital Hearing by the faculty. Prerequisite: permission of department chair. Note: will count towards graduation for music performance majors only.

MUS 401 Band (Symphonic/Marching) (1 SH). A marching band during the first half to two-thirds of the Fall Semester and a symphonic band during the remainder of the fall and all of the Spring Semester. The Marching Band performs both corps and traditional style half-time shows at all home and some away football games. The Symphonic Band performs a diverse and challenging repertoire in two concerts each year. Membership in the fully instrumented organization(s) is open to all students of the College. Students desiring partial Intellectual Perspectives (IP) credit in Visual & Performing Arts should register for MUS 401V. Prerequisites: audition and permission of the instructor.

MUS 401V Band (1 SH). Same as 401, except that students earn Intellectual Perspectives (IP) credit in Visual & Performing Arts after 4 semesters of 401V.

MUS 402 Instrumental Jazz Ensemble (1 SH). The Jazz Ensemble features improvisation solos by different students at each of several performances each year. Membership in the fully instrumented organizations is open to all students of the College. This course does not fulfill the large ensemble requirement for music majors. Prerequisite: permission of the instructor.

MUS 403 Flute Choir (1 SH). Opportunities for participation in flute chamber ensembles (duets, trios, quartets, quintets, etc.), as student enrollment dictates. This course does not fulfill the large ensemble requirement for music majors. Prerequisite: permission of the instructor.

MUS 404 Woodwind Ensemble (1 SH). Opportunities for participation in woodwind chamber ensembles (duets, trios, quartets, quintets, etc.), as student enrollment dictates. This course does not fulfill the large ensemble requirement for music majors. Prerequisite: permission of the instructor.

MUS 405 Brass Ensemble (1 SH). Opportunities for participation in brass chamber ensembles (duets, trios, quartets, quintets, etc.), as student enrollment dictates. This course does not fulfill the large ensemble requirement for music majors. Prerequisite: permission of the instructor.

MUS 406 Percussion Ensemble (1 SH). Opportunities for participation in percussion chamber ensembles (duets, trios, quartets, quintets, etc.), as student enrollment dictates. This course does not fulfill the large ensemble requirement for music majors. Prerequisite: permission of the instructor.

MUS 407 Wind Ensemble (1 SH). The Wind Ensemble is a select ensemble of approximately 35 woodwind, brass and percussion players, all of whom also play in the Symphonic Band. This ensemble, which is basically one on a part, is dedicated to performing the very best in modern Wind Ensemble literature. This course does not fulfill the large ensemble requirement for music majors. Prerequisite: permission of the instructor. Co-requisites: enrollment in MUS 401 or 401V and participation in Symphonic Band.
MUS 421 Concert Choir (1 SH). The Concert Choir sings traditional, contemporary, and ethnic choral pieces, as well as teaches musicianship and vocal education to its members. The choir participates in the College Vesper services, in the annual Christmas Vesper service, and presents several choral concerts through the year. The Concert Choir tours annually throughout part of the United States or Europe. Students desiring partial Intellectual Perspectives (IP) credit in Visual & Performing Arts should register for MUS 421V. Prerequisites: audition and permission of the instructor.

MUS 421V Concert Choir (1 SH). Same as 421, except that students earn Intellectual Perspectives (IP) credit in Visual & Performing Arts after 4 semesters of 421V. Students may accumulate 4 semester hours from the following courses, MUS 421V, MUS 423V and MUS 424V to meet the VP requirement.

MUS 422 Chamber Singers (1 SH). A select, mixed ensemble which sings small ensemble music such as madrigals, chansons, motets, vocal jazz, etc. Performances are both on and off campus. This course does not fulfill the large ensemble requirement for music majors. Prerequisites: audition and permission of the instructor.

MUS 423 Men’s Chorus (1 SH). An all-male ensemble comprised of music and non-music majors. Repertoire is drawn from all periods and genres. The chorus participates in the College Vesper services, in the annual Christmas Vesper service, and in additional choral concerts through the year. Students desiring partial Intellectual Perspectives (IP) credit in Visual & Performing Arts should register for MUS 423V. Prerequisite: permission of the instructor.

MUS 423V Men’s Chorus (1 SH). Same as 423, except that students earn Intellectual Perspectives (IP) credit in Visual & Performing Arts after four semesters of 423V. Students may accumulate four semester hours from the following courses, MUS 421V, MUS 423V and MUS 424V to meet the VP requirement.

MUS 424 Women’s Chorus (1 SH). A treble ensemble comprised of music and non-music majors. Repertoire is drawn from all periods and genres. The chorus participates in the College Vesper services, in the annual Christmas Vesper service, and in additional choral concerts through the year. Students desiring partial Intellectual Perspectives (IP) credit in Visual & Performing Arts should register for MUS 424V. Prerequisite: permission of the instructor.

MUS 424V Women’s Chorus (1 SH). Same as 424, except that students earn Intellectual Perspectives (IP) credit in Visual & Performing Arts after four semesters of 424V. Students may accumulate four semester hours from the following courses, MUS 421V, MUS 423V and MUS 424V to meet the VP requirement.

MUS 425 Opera Workshop (1 SH). Study and performance of oratorio and/or opera scenes. Emphasis is on vocal production and acting. This course does not fulfill the large ensemble requirement for music majors. Prerequisites: audition and permission of the instructor.

MUS 426 Musical (1 SH). Study and performance of a selected musical, co-produced by the departments of music and theatre. Emphasis is on acting, speaking, staging, scenery, costuming, and singing. This course does not fulfill the large ensemble requirement for music majors. Prerequisites: audition and permission of the instructor.

MUS 428 Musical Workshop (1 SH). Study and performance of musical scores. Emphasis is on singing, acting, speaking, staging and costuming. This course does not fulfill the large ensemble requirement for music majors. Prerequisites: audition and permission of instructor.

MUS 441 Orchestra (1 SH). A study of representative Baroque, Classical, Romantic, and Modern literature for chamber and symphony orchestra. Several performances are presented each year, one or more of which may utilize student soloists or choral organizations. The orchestra is open to all
qualified students and faculty of the College. Students desiring partial Intellectual Perspectives (IP) credit in Visual & Performing Arts should register for MUS 441V. **Prerequisite:** permission of the instructor.

**MUS 441V Orchestra (1 SH).** Same as 441, except that students earn Intellectual Perspectives (IP) credit in Visual & Performing Arts after four semesters of 441V.

**MUS 442 String Chamber Ensemble (1 SH).** Opportunities for participation in string chamber ensembles (duets, trios, quartets, quintets, etc.), as student enrollment dictates. This course does not fulfill the large ensemble requirement for music majors. **Prerequisite:** permission of the instructor.

**MUS 443 Handbell Choir (1 SH).** A 15- to 20-member group of handbell ringers, performing on and off campus throughout the year. An audition is required for membership. This course does not fulfill the large ensemble requirement for music majors. **Prerequisite:** permission of the instructor.

**MUS 444 Keyboard Ensemble (1 SH).** Opportunities for participation in keyboard chamber ensembles (duets, trios, quartets, quintets, etc.), as student enrollment dictates. This course does not fulfill the large ensemble requirement for music majors. **Prerequisite:** permission of the instructor.

**MUS 590 Field Experience/Internship (1-4 SH).** May be taken in Music Theory, Music History, Music Performance, Music Composition, Music Literature, Sacred Music, Music Education, or in some aspect of the Music Business. May be repeated for credit. **Prerequisite:** permission of instructor.

**MUS 600 Music Colloquium (0 SH).** Required of all students taking private lessons on primary instruments or voice. Meets twice each week. **Co-requisite:** must also register for private lessons. Grading is S/U only. May be repeated.

**MUS 600L Instrumental Performance Lab (0 SH).** For instrumental pedagogy and conducting classes, this lab meets once each week. Performance skills are cultivated. **Note:** The grade for MUS 600L will be incorporated into the grade of the appropriate pedagogy or conducting class. May be repeated.

**MUS 600M Master Class, lab for private lessons (0 SH).** Meets once each week. Performance skills are cultivated. Students of like instruments or voice meet together to perform for and be critiqued publicly by a master teacher. **Co-requisite:** must also register for private lessons. **Note:** The grade for MUS 600M will be incorporated into the grade of the appropriate private lesson. May be repeated.

**MUS 601 Capstone Recital (4 SH).** Students will prepare a portfolio, write a comprehensive capstone document (an analysis of all pieces on recital), prepare program notes, prepare language translations (where appropriate), and pass a Recital Hearing by the faculty. Students performing Capstone Recital within three weeks of the end-of-semester jury will be exempt from performing the jury, except that they will must perform their independently prepared piece for the jury. **Prerequisite:** permission of department chair.

**MUS 602 Capstone Lecture Recital (4 SH).** Students will prepare a portfolio, write a comprehensive capstone document (an analysis of all pieces on recital), prepare program notes, prepare language translations (where appropriate), and pass a Lecture Recital Hearing by the faculty. Students performing Capstone Lecture Recital within three weeks of the end-of-semester jury will be exempt from performing the jury, except that they will must perform their independently prepared piece for the jury. **Prerequisite:** permission of instructor.

**MUS 620-624 Independent Study (1-4 SH).** May be taken in Music Theory, Music History, Music Performance, Music Composition, Music Literature, Sacred Music, or Music Education. **Prerequisite:** permission of instructor and department chair.

**MUS 660, 670, 680, 690 Honors Research (1-4 SH).**
**NEUROSCIENCE**

**NS 341 Behavioral Neuroscience (4 SH).** Analysis of how nervous system activity underlies sensory, perceptual and higher cognitive activities including motivation, memory, language, thought, and mental illness. A laboratory is included. *Prerequisite: PSY 101 or BIO 201. (Also listed as PSY 341 and BIO 433.)*

**NS 434 Neurobiology (4 SH).** This course is an exploration of advanced topics in the field of neurobiology, with the focus being the nervous system as the central control and integrating system in animals. It reviews fundamental neuroanatomy and neurophysiology, as well as more specific topics such as sensory systems, neuroendocrinology, and nervous system development and disease. Recent advances published in the field of neurobiology will also be discussed. The lab component will be complementary to material covered during lectures. *Prerequisite: BIO 334 or consent of instructor. M. Furimsky. (Also listed as BIO 434.)*

**NS 590-594 Field Experience/Internship (1-4 SH).** An opportunity for students to work in a research or applied setting. Regular contact with the Westminster College internship instructor is required. A reading list developed prior to actual internship activities, a journal and a paper integrating the readings, internship experience and other college course work are also required. *Prerequisite: junior level standing. Staff.*

**NS 631, 632 Neuroscience Research I, II (4 SH).** A two-semester guided research project. Projects can be supervised by any department participating in the neuroscience major. Students must participate in PSY 601, 602.

**NS 640, 650 Independent Study (1-4 SH).** Supervised, individual investigation of a topic of special interest, generally in the form of an experimental project. However, any activity which affords an opportunity for learning not usually provided by the classroom situation is seriously considered. *Prerequisites:* written approval of the program coordinators after submission of an application, including a prospectus, to the department at least two weeks before preregistration.

**NS 650 Research Scholars (2 SH).** The research scholars program is for those exceptional students who choose to do a more extensive, three-semester capstone research project in neuroscience. Students eligible for this program must have a 3.5 GPA overall, a 3.5 GPA in neuroscience courses, have taken at least three psychology courses, obtained a letter of reference from a faculty member, and must submit a writing sample to the chair of the psychology department. Students accepted into the program begin their projects in the spring of their junior year and defend a thesis in the spring of their senior year. Students must show concurrent enrollment in PSY 601 and 602.

**NS 660, 670, 680, 690 Honors Research (1-4 SH).** *(See p. 61.)* Students enrolled in Honors Research participate in PSY 601, 602, NS 631, 632.

**PEACE STUDIES**

**PAX 101 Introduction to Peace Studies (4 SH).** This course will introduce the beginning student to the concept of peacemaking as it relates to a liberal arts education. It will explore the reasons for violence and conflict, from personal to international, and will explore historically and multiculturally the many ways societies have found peaceful alternatives. The relationship between peace and justice will be an important theme.

**PAX 301 Advanced Peace Studies Seminar (4 SH).** This seminar course is an experientially based, hands-on exploration of ways to work through conflict and to create conditions of sustainable peace. This seminar will incorporate service learning and civic engagement at the local, national, or international level. *Prerequisite: PAX 101 or permission of the instructor.*
PHYSICAL EDUCATION (for education students)

PED 301 Early Childhood Movement (1 SH). This course introduces the student to the factors influencing the changes in the development and learning of motor skills from infancy – Grade 4. Practical laboratory activities are utilized to illustrate basic concepts of motor development and motor learning. J. Reddinger.

PED 302 Adapted Physical Education (1 SH). This course is designed to provide perspectives for teachers and special educators in the field of Physical Education. The student will gain an understanding of working in an Adapted Physical Education setting. The student will learn to facilitate and enable learning in the least restrictive environment. T. Swearingen.

PHILOSOPHY

PHI 101 Problems of Philosophy (4 SH). This course will explore various themes introducing the student to the whole discipline of philosophy, the history of Western philosophy from the pre-Socratics to the contemporary thinkers, and some of the divisions of philosophical thought such as epistemology, ontology, and ethics.

PHI 102 Practical Logic (4 SH). A systematic introduction to critical thinking. This study of the methods and principles for the evaluation of argument includes formal techniques for reasoning that provides conclusive grounds for the truth of its conclusions. Both traditional (Aristotelian) and modern (Boolean) logic are considered, as is informal logic.

PHI 135 Ancient Greek Justice (4 SH). This course will be an examination of the philosophical ideas of justice that surfaced in the Golden Age of Greece and will include a travel-abroad component. The emphasis will be on the early establishment of a “people’s court” in which a jury of citizens stands judicial watch, continuing through the development of the Athenian judicial system that tried, convicted, and sentenced Socrates. Focus will be on differentiating the two types of justice that surfaced (shame and guilt), with a view towards understanding the impact that the Socratic idea of justice had on the development of Western culture.

PHI 200–209 The History of Philosophy (4 SH). Studies of the various historical periods of philosophy, such as the Ancient, Medieval, and Modern periods, and studies of the thought characteristic of particular centuries, such as the 19th and 20th centuries. More than one course in this sequence may be taken for credit, as long as each course has a different number, indicating different content.

The following specific courses in this sequence are currently available:

PHI 200 Ancient & Medieval Philosophy. A study of the conceptual history that is Western philosophical thought, starting with its surge within the ancient Greek Ionian civilization (approximately 600 B.C.) and continuing until the end of the Medieval period (around 1400 A.D.). Emphasis will be placed on reading primary sources, in English translation, as a vehicle to understanding first the philosophical method itself; secondly, the philosophical problems that have defined Western philosophy; and thirdly, the developmental nature of philosophical thought. Authors to be discussed may include: the Pre-Socratics, Socrates, Plato, Aristotle, Augustine, Aquinas, Abelard, Maimonides, Avicenna, Averroes, and others.

PHI 202 Foundations of Modern Philosophy. An examination of the philosophical period that began with the philosophy of Rene Descartes, whose impact led to a redirecting of intellectual efforts and still reverberates today. Beginning with his attack on the epistemological methodologies of his contemporaries, this course will trace the impact that Cartesian philosophy
had on his contemporaries and the philosophical responses that followed. Included will be an examination of the primary epistemological divisions of the time (rationalism and empiricism), as expressed by the key philosophers of the time period (Descartes, Leibniz, Spinoza, Locke, Berkeley, and Hume), as well as a look at the culminating transitional figure who closes the period (Immanuel Kant).

**PHI 206 19th & 20th Century Philosophy.** This course will be an examination of a single, influential philosophical movement that occupied the 19th and 20th centuries: phenomenology. Following a brief historical sketch of Western philosophy, emphasizing the major philosophical positions and the development that defines Continental philosophy, the course will examine the turn that philosophy takes with Descartes, and then follow the major influences in this branch of Continental philosophy, with emphasis on figures such as Husserl, Heidegger, Sartre, Merleau-Ponty, Beauvoir, and Derrida.

**PHI 210–229 Topics in Philosophy (4 SH).** Philosophical studies of various specific topics, such as philosophy of science, of religion, of the mind, etc. More than one course in this sequence may be taken for credit, as long as each course has a different number, indicating different content.

The following specific courses in this sequence are currently available:

**PHI 212 Philosophy of Science.** An introduction to critical thinking as approached through philosophical problems concerning science. What is science? What is theory? How are theories verified or confirmed? The course includes inductive reasoning, the history and logic of scientific discovery, and how society and human perspectives affect scientific claims.

**PHI 218 Philosophy of Mind.** The philosophy of mind is one of the most rapidly developing and vigorous areas in contemporary philosophy. New techniques in neuroscientific imaging are providing a steady flow of data requiring philosophical analysis and interpretation. Guided reading will be supplemented by historical primary sources and articles on neuropsychology. Since it is highly desirable that both philosophy majors and students of neuropsychology be given the opportunity to study philosophy of mind, this course will normally be offered as part of a cluster with PSY 262: Neuropsychology of Mind.

**PHI 230–259 Practical Ethics (4 SH).** Studies in the application of moral philosophy to ethical questions raised by the practical issues of our time. Individual courses will focus on the application of developed moral theories (such as virtue ethics, utilitarianism, or an ethics of duty) to specific areas of inquiry, such as business, the environment, genetic engineering, and medicine. More than one course in this sequence may be taken for credit, as long as each course has a different number, indicating different content.

The following specific courses in this sequence are currently available:

**PHI 230 Environmental Ethics.** Beginning with an examination of the nature of ethics in general, this course will explore a variety of theoretical positions on subjects such as the philosophy of nature, animal rights, deep ecology, eco-feminism, and global justice. One guiding theme will be the difference between the “anthropocentric” and an “eco-centric” attitude.

**PHI 240 Biomedical Ethics.** This course will deal with fundamental moral issues that surface in regard to the medical community and to practices therein, beginning with an examination of the theoretical foundation for making moral choices. Initial focus will be on the divergent religious and philosophical positions that have been put forward to justify medical moral choices. Included will be an examination of both consequentialist and non-consequentialist positions, including Divine Command Theory, Utilitarianism, Kant’s categorical position, Buddhist compassion, and others. Once students are grounded in these differing theoretical
perspectives, we will examine specific issues from alternative perspectives, giving students an opportunity to compare and contrast divergent positions.

**PHI 250 Business Ethics.** This course will be a study of the ethical issues and problems that surface in our contemporary business environment. We will begin with an examination of the theoretical grounds upon which more decision making is based, looking at human conduct in relationship to what we *ought* to do. From this theoretical foundation, we will proceed to examine concrete ethical business practices, using case studies as a means to grasp the ethical issues of conducting modern business. Possible topics include corporate responsibilities (to shareholders, to the general population, and to the environment), product safety and liability, sexual harassment in the workplace, distribution of wealth.

**PHI 401–410 Advanced Topics in Philosophy (4 SH).** A thorough investigation of restricted areas of study in philosophy. One philosopher, one area, one idea or term, or one branch of philosophy will be selected and explored in detail. Different areas of content will receive different course numbers and a student may take more than one 400-level course as long as they have different numbers, indicating different content.

**PHI 590-594 Field Experience/Internship (1-4 SH).** *Prerequisite: consent of the instructor and the department chair.*

**PHI 601 Philosophy Capstone (4 SH).** The capstone in philosophy will attempt to prepare majors for the challenges of publication in the field. Under the guidance of their adviser, senior students will produce a polished article on a selected topic, using an appropriate style and format, and will attempt to publish this paper in a suitable journal. This course is required of all senior philosophy majors who are not doing an Honors Project in philosophy.

**PHI 620-624 Independent Study (1-4 SH).** Advanced study under guidance of a staff member in a special area selected by the student. *Prerequisites: four relevant courses in philosophy and approval of the department chair.*

**PHI 660, 670, 680, 690 All-College Honors Program (1-4 SH).** *(See p. 61.)* *Note: Philosophy majors enrolled in the All-College Honors Program will fulfill all the requirements of the Philosophy Capstone (PHI 601).*

**PHYSICS**

**PHY 101 Physical Science (4 SH).** A study of the basic phenomena and science concepts of the physical world. The course makes use of an integrated lab-lecture period and relies on observation, reasoning, and an activity-based approach to understanding ideas and solving problems. Topics studied include motion, heat, electricity, magnetism, light, optics, and materials science.

**PHY 121 Astronomy (4 SH).** A primarily descriptive course treating the basic observations, phenomena, and understandings of the physical universe. A laboratory is included. Offered Spring Semester.

**PHY 141 Foundations of Physics I (4 SH).** The first semester of an introductory study of physics (mechanics, heat, electricity, magnetism, waves, light and modern physics) without calculus. Basic principles used in both semesters are introduced in the first semester. Some emphasis will be given to applications of physics to biological systems. A laboratory is included. *Prerequisite: a good background in high school mathematics including algebra and trigonometry.* Offered Fall Semester.

**PHY 142 Foundations of Physics II (4 SH).** The second semester of an introductory study of physics (mechanics, heat, electricity, magnetism, waves, light and modern physics) without calculus. Some
emphasis will be given to applications of physics to biological systems. A laboratory is included. *Prerequisite*: PHY 141 or PHY 151. Offered Spring Semester.

**PHY 151 Principles of Physics I (4 SH).** The first semester of an introductory study of physics (mechanics, heat, electricity, magnetism, waves, light and modern physics). Basic principles used in both semesters are introduced in the first semester. Some basic concepts of calculus may be introduced as needed. A laboratory is included. *Co-requisite*: MTH 150 or higher. Offered Fall Semester.

**PHY 152 Principles of Physics II (4 SH).** The second semester of an introductory study of physics (mechanics, heat, electricity, magnetism, waves, light and modern physics). Calculus methods will be used. A laboratory is included. *Prerequisite*: PHY 151; *Co-requisite*: MTH 152 or higher. Offered Spring Semester.

**PHY 221 Electronics (4 SH).** An introductory course covering basic principles and applications of electrical engineering. Topics covered include steady-state and transient analysis of electrical networks, frequency response, op-amps, diodes, and transistors. A laboratory is included. *Prerequisite*: PHY 152. Offered on a rotating basis.

**PHY 231 Optics (4 SH).** A detailed study of the interaction of light and matter. Topics covered include the characteristics of electromagnetic waves, reflection, thin and thick lens systems, polarization, interference, and diffraction. *Prerequisite*: PHY 152. Offered on a rotating basis.

**PHY 241 Nonlinear Dynamics (4 SH).** In most physics classes, the meat of the course is in developing general laws (e.g. Newton’s laws) and then applying them to a physical process (e.g. a block sliding down an inclined plane) to create a mathematical model of that process. With these models, a bit of mathematical machinery, and a set of initial conditions, one can set out to predict the future. This is a different kind of class. The situations a student will analyze in this course are often not predictable even in principle. Here the student will frequently take the mathematical model as a given. The task is to develop tools to understand the kinds of behavior that are possible in that model, the kinds of behavior that are typical of that model, and how these various kinds of behavior relate to each other. This shift in approach is a necessary one when moving from linear to nonlinear systems. *Prerequisite*: PHY 152. Offered on a rotating basis.

**PHY 311 Thermal (4 SH).** A study of the behavior of systems containing large numbers of particles. The course emphasizes the analysis of model systems using statistical mechanics. From that analysis, the thermodynamic behavior of real systems can be understood. *Prerequisite*: PHY 152; *Co-requisite*: MTH 250. Offered Fall Semester, alternate years.

**PHY 313 Modern Physics (4 SH).** Modern Physics offers a broad introduction to the major developments in physics in the 20th century. Topics covered include special relativity, wave-particle duality, quantum mechanics, statistical mechanics, solid state physics, nuclear physics, elementary particle physics, and other specialized topics. *Prerequisite*: PHY 152. Offered Fall Semester, alternate years.

**PHY 321, 322 Experiments in Physics I, II (2 SH each).** Experiments from many fields such as optics, nuclear, and atomic physics. Fundamental experimental techniques will be introduced. Computer automation methods are emphasized. *Prerequisite*: PHY 152. Offered Fall/Spring semesters, alternate years.

**PHY 331 Computational Physics I (2 SH).** This course will stress the application of mathematics to physical processes. The emphasis will be on analytical approaches to problem solving. The topics discussed include: series expansions, complex numbers, linear algebra, partial derivatives, multiple integrals, vector analysis, Fourier series, ordinary differential equations, partial differential equations, special functions, and probability. *Prerequisite*: PHY 152; *Co-requisite*: MTH 250. Offered Fall Semester, alternate years.
PHY 332 Computational Physics II (2 SH). As not every problem of interest can be solved analytically, Computational Physics 2 will stress a numerical approach to analyzing physical processes. The topics discussed in this course include translating analytical expressions into expressions that can be calculated by a computer, representing the data from numerical calculations in meaningful ways, finding numerical solutions to physically relevant ordinary differential equations (ODEs) and partial differential equations (PDEs), and simulating random processes. Prerequisite: PHY 331. Offered Spring Semester, alternate years.

PHY 351 Mechanics (4 SH). Physics 151 provided students an introduction to mechanics using the formalism of either Newton’s laws or one of the conservation laws (momentum and energy). This course will deepen the sophistication with which students approach mechanics. Some of this will come from learning to apply mathematical tools such as series expansion, vector calculus, differential equations, symbolic solvers, and numerical integration while solving problems. Prerequisite: PHY 152; Co-requisite: MTH 250. Offered Spring Semester, alternate years.

PHY 352 Electromagnetic Theory (4 SH). A study of the foundations of classical electromagnetic theory, including electric and magnetic fields, potential theory, Maxwell’s equations, and electromagnetic waves. Vector methods are used extensively. Prerequisites: PHY 152, MTH 250. Offered Spring Semester, alternate years.

PHY 401 Quantum Mechanics (4 SH). The theory of quantum mechanics is discussed and studied in detail. Applications are made primarily to atomic structure. Prerequisite: PHY 313. Offered Fall Semester, alternate years.

PHY 402 Astrophysics (4 SH). Astrophysics is an all-purpose overview of astronomy and cosmology at a quantitative level accessible to the junior or senior undergraduate science major. The student will be introduced to advanced topics at the forefront of current research. This may include extrasolar planets and low-mass stars, the interstellar medium, galactic evolution, gravitational waves, and the expansion of the universe. In preparation for these advanced topics, introductory and intermediate astrophysical foundations will also be established. Prerequisites: PHY142 or PHY152; MTH152; and junior or senior standing. Offered Fall Semester, alternate years.

PHY 404 Biophysics (4 SH). An introduction to several key elements in soft condensed matter physics, focusing on the application of the principles of statistical mechanics to analyzing a range of biological processes at the molecular and cellular levels. This course explores the richness of biological molecules and cell-level processes from the framework of the physical scientist. Prerequisites: PHY311 or permission of instructor. Offered Fall Semester, as needed.

PHY 590-594 Field Experience/Internship (1-4 SH).

PHY 601 Physics Capstone I (2 SH). A study of selected topics or problems that require the integration of previous physics and related experiences. The seminar will involve individual and/or group work culminating in an appropriate presentation. Additionally, each student will do preliminary background research to develop a proposal for his/her senior capstone project. Offered Fall Semester.

PHY 602 Physics Capstone II (2 SH). A focused student project which has been approved by the physics faculty. The project culminates in written and oral presentations. Offered Spring Semester.

PHY 610, 611 Advanced Topics (4 SH). Interests of students are considered in selecting particular topics. Prerequisite: consent of instructor. Offered on demand.
PHY 620-624 Independent Study (1-4 SH).
PHY 660, 670, 680, 690 Honors Project (1-4 SH).

PUBLIC RELATIONS

PR 101 Principles, Practices and Theory of Public Relations (4 SH). A concept course which will make students familiar with the background and content of public relations management and help them understand the nature of managerial and ethical responsibilities of public relations practitioners. Attention will be given to the codes of ethics and enforcement processes of national societies of public relations professionals. The primary focus will be on management’s critical areas of accountability: the conceptualization and specification of the tasks and responsibilities which define the nature, scope and warranty of public relations activity. The course also will provide an overview of the various sectors of public relations such as public affairs, community relations, employee relations, financial and shareholder relations, consumer relations, international relations, crisis management and issues management.

PR 202 Advertising and Public Relations: Approaches and Methods (4 SH). This course will examine the current practices of advertising and public relations with a particular emphasis on how these two areas work together in serving the client. Prerequisite: successful completion of PR 101.

PR 203 Public Relations Research for Planning and Evaluation (4 SH). This course prepares students for public relations research necessary for planning and evaluating programs of action and communication. The course will focus on 1) identifying and segmenting various social groupings (interest groups, stakeholders, coalitions); 2) ascertaining the impact of the action and information system on communication participants; and 3) evaluating the results of such action and communication activity against desired outcomes. Prerequisite: successful completion of PR 101.

PR 301-399 Selected Topics in Public Relations (4 SH). This series of courses broadens the PR curriculum, enabling majors to keep up with developments in this rapidly changing field. Special topics will be taught by faculty members in areas of interest to them, areas that might not warrant a permanent offering but which permit the incorporation of new research material, in-depth analysis, and stimulating readings. Course offerings may be influenced by recommendations from the Public Relations Society of America.

PR 401 Public Relations Writing (4 SH). This course focuses on skills and techniques that cover writing for public relations, copy dissemination, media use and media network design; these techniques range across internal and external media, print, electronic and audiovisual media. Special attention will be given to 1) the range of media used; 2) the multiple groups which have to be reached at the same time; 3) the social and organizational context in which public relations writing is done; and 4) the objectives to be attained by such writing. These objectives must be identified with the public relations mission to seek accord with various social groupings and organizations. The course requires an understanding of the journalistic writing style. Types of writing will include speech writing, proposals, news releases, annual reports, and newsletters. Prerequisites: successful completion of PR 101, WRI 201. Note: PR 202 and 302 are strongly recommended as a prerequisite or co-requisite.

PR 402 Public Relations and the Media (4 SH). A study of the history and relationship between public relations and the media environment. Course content covers setting up media program, building strong working relationships with the press, helping reporters meet their objectives, using tools of the trade from news releases to news conferences, training spokespeople, understanding the ethics of media relations, planning media events, managing international media, anticipating issues and managing crises, counseling senior management, and evaluating the effectiveness of media relations programs. Prerequisites: successful completion of PR 101, 202, 401, WRI 201. Prerequisite/Co-requisite: PR 302.
PR 501 Experiential Studies (4 SH). This requirement will involve both the simulation and practice of public relations. Students will attract, consult with, execute plans for, and service public relations clients both on campus and in the immediate community. Prerequisites: successful completion of all courses through the third-year sequence (PR 402) and permission of the department.

PR 590-594 Internship (1-4 SH). Admission is limited to senior majors in good academic standing who have completed all courses through the third-year sequence (PR 402). Graded.

PR 601 Public Relations Capstone (4 SH). A course which looks at topics, issues, case studies and campaign strategies relevant to the field of public relations. Particular attention will be directed to strategic planning and implementation as they pertain to public relations administration. Students will be expected to research, plan, design, and create a public relations campaign. Effective evaluation techniques will be incorporated into the campaign. This course will reflect knowledge gained in all prior public relations courses as well as the Liberal Studies curriculum. The project will culminate in a public presentation. Prerequisites: successful completion of all courses through the third-year sequence (PR 402) and permission of the department.

PR 620-624 Independent Study (1-4 SH).

PR 660, 670, 680, 690 Honors (1-4 SH). (See p. 61.)

POLITICAL SCIENCE

PS 101 Introduction to Political Science (4 SH). An introduction to the discipline of political science. The aim of the course is to introduce students to the scope and nature of political science, the fundamental problems of political life in the contemporary world, and the main types of political systems around the world. Special attention is paid to the challenges facing democracy as a political system in the coming decades. Staff.

PS 102 American National Government (4 SH). A critical introduction to the institutions, processes, powers, and limitations of the American national government. Special attention is given to an examination of the role of the citizen in American government and to the nature of democracy in America. Proposals for the reform of American government are also examined. J. Rhoads, S. Smithey.

PS 103 Introduction to Political Philosophy (4 SH). An introductory examination of several of the basic problems of political life. The issues considered include the nature and function of order, authority, law, justice, freedom, equality and progress. E. Cohen.

PS 104 International Politics (4 SH). A study of politics among states and other actors who affect global relations. Once establishing a background in the concepts used to analyze world politics, students will use these concepts to explore the Cold War era, the end of that system, and several pertinent international issues in the areas of security, economics, and the environment. M. Aleprete.

PS 204 Model United Nations (1 SH). This course prepares students to participate in a simulation that utilizes the basic structural tenets and procedural framework of the United Nations. Students develop familiarity with parliamentary procedures and a working knowledge of the national interests of member states. Students either attend a national Model United Nations conference or serve as conference staff for the Westminster College Model United Nations high school conference. Delegates work as diplomats, representing various countries and working towards solutions to various international problems. Conference staff members prepare a simulation experience and host committee sessions for area high school students. This course may be repeated for up to a total of four credit hours. M. Aleprete.
PS 211 State and Local Government (4 SH). A study of the American experience in state and local government, analytically oriented, with the objective of explaining political processes at the sub-national level. Attention is given to a description of basic institutions, to an analysis of state and municipal politics in a comparative perspective, and to salient policy questions. Staff.

PS 212 The Congress (4 SH). A study of the development and functioning of Congress and the legislative process. The course focuses on Congress’ role in policy making, with special attention given to the history, institutions, powers, and duties of Congress, and to the roles played by the committees and leadership of both Houses. The relationships of Congress to parties, interest groups, and other branches of government also are examined. J. Rhoads.

PS 213 The Presidency (4 SH). A survey of the development, roles, duties, powers, and limitations of the President and his chief advisers. The course focuses on such topics as the President and the Constitution, Presidential elections, the structure of the Presidency, and the President’s relations with Congress, the bureaucracy, and the American people. Special attention is given to the impact of the President on both domestic and foreign policy and to recent attempts to reform the Presidency. J. Rhoads.

PS 214 The Courts (4 SH). This course covers a variety of topics relating to the politics of the American judicial system. Topics include: the structure and function of the state and national courts, the causes and consequences of civil litigation, the methods used to select judges, the politics of the bar, political litigation by interest groups, the historical development of judicial power and the controversies surrounding it, the factors that influence judicial decisions, and the relationship between the courts, the public and other branches of government. S. Smithey.

PS 215 The Politics of Rock and Roll (4 SH). This course examines the relationship between one of the most powerful cultural forces of the 20th and 21st centuries—rock and roll music—and the political realm. J. Rhoads.

PS 221 American Political Thought (4 SH). An examination of American political theory from the origin of this country to the present, with emphasis on the development of liberalism, conservatism, and radicalism within the American tradition. E. Cohen.

PS 222 Modern Democratic Ideologies (4 SH). A study of both the basic principles of democracy and also several modern ideologies which operate within the framework of democratic values and practices. Among those ideologies examined are liberalism, conservatism, democratic capitalism, democratic socialism, Christian democracy, and liberation theology. Central to the examination will be such problems as the role and value of the individual, the powers of government, and the organization of the economy and the distribution of rewards within the societies proposed by each ideology. S. Smithey.

PS 232 Comparative European Governments and Politics (4 SH). A comparative study of the political systems and current challenges facing selected European powers. The patterns of political culture, political interests, political power, and public policy are analyzed. In addition, the project of European integration (the European Union) will be studied, and its current and future relations with the United States investigated. M. Aleprete.

PS 233 Government and Politics of Developing Countries (4 SH). Selected countries from the Third World will be studied to analyze the politics of change in the developing countries as they face the complex world of the international system. In particular, these issues will be studied: political instability; money management, inflation, and foreign debt; population pressures on limited resources; ethnic problems contributing to city, rural and regional frictions; asymmetrical economic development; and foreign policy issues relating to trade and diplomacy with industrialized countries of the world. M. Aleprete.
PS 235 African Politics and Society (4 SH). A study of the interaction between politics and social structures in Africa. Topics will include political organization in pre-modern Africa, the development and impact of slavery, the operations and impact of European colonialism, the struggle for independence, the nature of the African state, the operation of democratic and authoritarian governments, the role of women, and the effects of AIDS. S. Smithey.

PS 236 Politics of the Russian Federation & Former Soviet Republics (4 SH). This course introduces students to important issues in contemporary Russian politics including the development of its political, economic and social institutions. Students will examine the historical development of Russia’s governing institutions; compare the Russian Federation to other post-Soviet republics, and consider Russia’s regional and global significance. M. Aleprete.

PS 241 Public Policy (4 SH). An introduction to theories of policy making, policy implementation, and policy evaluation with particular attention to their applications to the American political system. An overview of policy in areas such as education, transportation, civil rights, welfare, agriculture, and defense is also provided. Special attention is given to the discussion of improving public policies. E. Cohen.

PS 242 Environmental Policy and Politics (4 SH). This course explores “the environment” as a focus of public policy, an issue in political debate, and a basis for thinking about the purposes of political life. It reviews some of the classic readings in environmentalism, considers domestic and international policy approaches to major issues such as climate change, clean air and water, and sustainable development, and explores the ways in which thinking “environmentally” challenges our standard assumptions about policy-making and political life. Prerequisite: PS 101 or consent of instructor. E. Cohen

PS 251, 252, 253, 254, 255 Political Science Seminars (4 SH). Work in selected areas. These areas include PS 251 Seminar in Politics and Behavior; PS 252 Seminar in American Politics; PS 253 Seminar in Political Philosophy; PS 254 Seminar in Comparative Politics; PS 255 Seminar in International Politics. Special topics related to the selected area to be offered are announced prior to each registration period.

PS 301 Junior Seminar: Research Design and Analysis in Political Science (4 SH). An introduction to the various approaches to and challenges of research design and analysis in the discipline of political science. The goal is for each student to design a research project which will then be pursued in the Senior Capstone course. This course must be taken in the spring of the junior year. Prerequisites: PS 101, 102, 103, 104 and junior standing. Staff.

PS 302 Seminar—Mock Convention I (2 SH). Seminar to be held in the Spring term before Westminster’s Mock Convention. Students will learn about the role of National Nominating Conventions in the American political system. Planning will begin for Westminster’s Mock Convention to be held in the fall of the following academic year. Staff.

PS 303 Seminar—Mock Convention II (2 SH). Seminar to be held in the same term as Westminster’s Mock Convention. Students will continue to plan, prepare and execute the convention. Students will gain experience in all aspects of the process: credentials, public relations, platform, etc. Staff.

PS 311 Campaigns and Elections (4 SH). An examination of the processes by which Americans and their government are linked. Special attention is given to the study of the structures and functions of political parties and interest groups. Attention is also given to the role of the individual citizen, public opinion and elections in the linkage process. Problems in citizen-government linkage in the United States and proposals for reform are emphasized. Prerequisite: PS 102, or permission of instructor. J. Rhoads.
PS 321 American Constitutional Law: Government Powers (4 SH). An examination of the U.S. Supreme Court as an agency of judicial decision making within the framework of the American political system. The Supreme Court is studied within its political, historical, and constitutional framework, where it seeks to protect or expand its own powers as it is called upon to clarify social values as it interprets the major clauses of the U.S. Constitution. Prerequisite: PS 102 or 103, or permission of instructor. E. Cohen.

PS 322 American Constitution Law: Civil Rights and Liberties (4 SH). An examination of the role of the Supreme Court, judicial review, and political struggle in shaping the evolution of the Constitutional framework of American politics. This course focuses on judicial review and the role of the Supreme Court in articulating and defending the civil rights and liberties of American citizens, through the interpretation and application of the Bill of Rights and the Fourteenth Amendment. Particular focus will be placed on the issues of freedom of speech and expression, the relationships between church and state, the right of privacy, and the constitutional guarantees of equal protection before the law. Prerequisite: PS 102 or 103, or permission of instructor. E. Cohen.

PS 323 Modern Political Philosophy (4 SH). A study of normative values, as related to government and politics, utilizing the writings of the great political thinkers of the West from Machiavelli to the present. Prerequisite: PS 103 or permission of instructor. E. Cohen.

PS 331 Geopolitics (4 SH). This course reviews traditional understanding of geopolitics, but moves beyond examining how geography impacts the projection of military power; addressing broader issues regarding the relationship between territory and international conflict. Particular attention will be paid to how nationalism and globalization have transformed the relationship between geography and war. M. Aleprete.

PS 332 U.S. Foreign Policy (4 SH). An exploration of the actors, institutions, and processes that shape the making of contemporary U.S. foreign policy. The course begins with an overview of Cold War foreign policy, and then focuses on the challenges facing American policy in the post-Cold War era. Special attention is given to the continuities and changes in the political processes through which foreign policy is made, and different theoretical approaches to the explanation of United States foreign policy. Prerequisite: PS 104 or permission of instructor. M. Aleprete.

PS 342 Politics and the Economy (4 SH). An examination of the manifold relationships between political life and economic organization, with an emphasis on advanced capitalist societies. The course will consider major theories about the relationship between government and the economy, explore the history and variety of relationships between the state and the market economy, evaluate the impact of economic change on political life, and discuss some of the pressing contemporary issues in this area, such as fiscal policy and government deficits, free trade/protectionism and international economic interdependence, monetary policy, government regulation of the economy, and questions of poverty and inequality. Prerequisite: PS 101 or permission of instructor. E. Cohen.

PS 411 Political Psychology (4 SH). A study of the dynamic relationship of the individual to his/her political environment, with emphasis on theories of political personality, political socialization, and political efficacy. Students are introduced to a means of scientifically studying the subjective communication that is inherent in theories of political personality. Prerequisite: PS 101 or 102, or permission of instructor. J. Rhoads.

PS 431 International Law and Organization (4 SH). A study of selected international institutions that have been constructed to address challenges faced by the world’s states. The course will introduce the student to several theories of international cooperation and explore the validity of these approaches in explaining behavior in the United Nations system (which consists of many international organizations). Students will leave the course with an understanding of the structures of these organizations, as well as a sense of how and why they work and sometimes fail to work. Topical areas will include peacekeeping, arms control and disarmament (e.g., nuclear weapons,
biological and chemical warfare), development and trade, social and humanitarian issues (e.g., refugees, drug trafficking, transnational crime), and legal issues (e.g., war criminals, asylum). **Prerequisite:** PS 104 or permission of instructor. M. Aleprete.

**PS 590-594 Field Experience/Internship (1-4 SH).** **Prerequisites:** two courses in political science and consent of department.

**PS 601 Senior Capstone (4 SH).** An examination of central theoretical debates and challenges confronting modern political scientists. Over the course of the semester, each student will complete a substantial research project that applies a contemporary theoretical approach to a pressing issue in contemporary political life. This course must be taken in the spring of the senior year. **Prerequisite:** Senior standing. Staff.

**PS 620-624 Independent Study (1-4 SH).** **Prerequisites:** two courses in political science and consent of department.

**PS 660, 670, 680, 690 Honors Project (1-4 SH).**

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**PSYCHOLOGY**

**PSY 101 Introduction to General Psychology (4 SH).** Principles of human and animal behavior. The study of individual, group and institutional behavior in context. Offered every semester. Staff.

**PSY 201 Statistical Methods and Analysis (formerly Research Methods and Analysis) (4 SH).** An introduction to the experimental methodology, descriptive data analysis, statistical inference, and philosophy of science that are most germane to psychology. A laboratory is included. **Prerequisites:** PSY 101, MTH 131 (or permission of instructor). S. Webster.

**PSY 211 Motivation (4 SH).** Examination of the ultimate and proximal factors that arouse, sustain and direct behavior. Staff.

**PSY 212 Psychology of Personality (4 SH).** A critical survey of the major theories of personality structure, dynamics, and development. Staff.

**PSY 213 Psychology of Prejudice (4 SH).** This class will apply social psychological theory and research to understand the psychological underpinnings of prejudice. Students will explore the impact of prejudice on members of targeted groups with a particular emphasis on understanding the experience of racism. Grounded in psychological theory and research, students will explore current social issues related to prejudice as well as specific ways to reduce stereotyping and prejudice on both a personal and societal level. S. Pataki.

**PSY 215 Psychology of Sex (4 SH).** This course explores the psychological processes that underlie human sexual behavior. With an eye toward historical and cultural variations, students will explore such topics as sexual attraction, motivation, attitudes, decision making, behavior, and disorders. This course is based on a scientific exploration of sexuality; thus students will learn how psychologists study sexuality empirically, and how the results of sexuality research are perceived by the public. J. McMinn.

**PSY 219 Early Childhood Development (4 SH).** A chronological approach to the principles and theories of child development from birth-11 years of age. This course fulfills the developmental psychology requirement for early childhood education majors. M. Medvin.

**PSY 221 Childhood and Adolescence (4 SH).** A topical approach to principles of human growth and development, with an emphasis on both childhood and adolescence. M. Medvin.

PSY 251 The Internet: Psychology (4 SH). An application of psychology to the Internet. Topics to be covered include: human/computer interaction, dyadic interaction via the Net, group dynamics in communication networks and cross-cultural Cyberspace. A cluster course. Must also register for CS 252. S. Webster.

PSY 261 Neural Networks: The Biopsychological Perspective (4 SH). An introduction to how biologically-oriented psychology analyzes such topics as memory, intelligence and consciousness as emerging from principles of neurocomputation. A cluster course. Must also register for CS 271.

PSY 262 Neuropsychology of Mind (4 SH). This course surveys the contributions of psychology and neuroscience to understanding human thought and human nature. Particular attention is paid to scientific approaches in studying consciousness and the field of clinical neuropsychology. A cluster course. Must also register for PHI 218.

PSY 271 Behavior Modification (4 SH). An examination of the fundamental principles involved in learning, with an emphasis on applying those principles to understanding and changing human behavior within a variety of contexts (e.g., education, mental health, parenting, business). K. Lunnen.

PSY 275 Forensic Psychology (4 SH). The course provides a survey of key areas of relevance in forensic psychology. As an introduction to forensic psychology, the course tackles the fundamental goals and applications of psychological practice in the legal system including custody evaluation, criminal profiling, and competency assessment. K. Lunnen.

PSY 281 Principles of Learning and Memory (4 SH). Analysis of the variety of mechanisms by which our behavior and our representations develop from experience. Prerequisite: PSY 101.

PSY 291 Adulthood and Aging (4 SH). An examination of the theories and research regarding development and change from young adulthood through old age. M. Medvin.

PSY 301 Psychological Assessment (4 SH). This course explores issues related to the assessment of human functioning within a variety of areas, including intelligence, academic achievement, personality and other dimensions of psychological adjustment. The course will focus on major assessment strategies and instruments within each of these areas, as well as principles underlying the construction and effective use of assessment instruments. A laboratory is included. Prerequisite: PSY 201. K. Lunnen.

PSY 315 Animal Behavior (4 SH). An introduction to the fascinating fields of animal behavior and cultural learning. This course focuses on the relationships between animals and their environments through adaptation, communication and social organization. It also explores other exciting issues such as, what animal behavior can teach us about ourselves, how economic game theory has been used to explain evolution of behavior, and how our understanding of animal behavior is changing the way we treat them. There will be field work in the form of animal observations and a possible field trip to Pittsburgh Zoo or another wild animal facility. Prerequisites: C- or better in BIO 203 or permission of instructor, willingness to spend a lot of time watching animals. K. Robertson. (Also listed as BIO 363.)

PSY 321 Social Psychology (4 SH). Descriptive and experimental examination of the interaction of individuals, small groups and large groups focusing on topics such as attitude formation, conformity, aggression, cooperation, and intergroup relations. A laboratory is included. Prerequisite: PSY 201. J. McMinn.
PSY 331 Psychology of Women (4 SH). This course challenges students to question their existing beliefs about what it means to be male and female in today’s society. We will explore traditional and changing gender roles and their impact. Course topics include an in-depth look at issues related to gender stereotypes, violence against women, interpersonal relationships, childcare and employment. Students will also explore global issues related to gender roles and culture by examining women’s lives in other countries. S. Pataki. (Also listed as GS 331.)

PSY 341 Behavioral Neuroscience (4 SH). Analysis of how nervous system activity underlies sensory, perceptual and higher cognitive activities including motivation, memory, language, thought, and mental illness. A laboratory is included. Prerequisite: PSY 101 or BIO 201. (Also listed as NS 341 and BIO 433.)

PSY 351 Cognition (4 SH). Memory, problem solving, language and intelligence considered from information processing and alternative views. Prerequisite: PSY 101. K. Lunnen.

PSY 401 Abnormal Psychology (4 SH). An examination of the theoretical and empirical approaches to understanding abnormal human behavior with an introduction to the nature, causes and treatment of various psychological disorders. Prerequisite: PSY 101. K. Lunnen.

PSY 411 Exceptional Children (4 SH). An exploration of the etiologies, characteristics, treatment and outcomes in adulthood for the exceptionalities of childhood and adolescence. These include intellectual giftedness, mental retardation, neurological and sensory impairment, emotional/behavioral disorders and autism. Prerequisite: PSY 221 or consent of instructor. M. Medvin.

PSY 421 Clinical Psychology: Theory and Practice (4 SH). This course provides an in-depth exploration of the field of clinical psychology and the treatment of psychological disorders. Prerequisite: PSY 101. K. Lunnen.

PSY 431 Developmental Psychopathology (4 SH). An overview of problems and processes that lead to abnormal development in childhood and adolescence. Included is an in-depth examination of early psychological disorders. Prerequisites: Psy 101 or 221.

PSY 590-594 Field Experience/Internship (1-4 SH). Working in a psychology related field under the supervision of a person with at least a master’s degree in psychology or a related discipline. Regular contact with the Westminster College internship instructor is required. A reading list developed prior to actual internship activities, a journal and a paper integrating the readings, internship experience and other college course work are required. Prerequisite: junior level standing. Staff.

PSY 601 Psychology Capstone: Senior Studies I (2 SH). Senior Capstone seminar which addresses psychological research, its strengths, weaknesses and applications beyond psychology. Students must register for Senior Studies I concurrently with Advanced Research I (611, 621, 631, 641, or 651). Students will prepare and review proposals for senior theses and begin preliminary research. Prerequisites: PSY 201 and junior level standing. Offered Spring Semester.

PSY 602 Psychology Capstone: Senior Studies II (2 SH). Continuation of Senior Studies I. Students must register for Senior Studies II concurrently with Advanced Research II (612, 622, 632, 642, or 652). Students will conduct, revise, review and formally present senior theses. Prerequisite: PSY 601. Offered Fall Semester. Successful completion of this course and the Advanced Research II course satisfies the Liberal Studies Capstone requirement. J. McMinn.

PSY 610, 611 Advanced Topics (4 SH). Specialized topics usually offered only once or twice to explore cutting-edge issues, methods, and creative needs of instructors and students. Prerequisite: consent of instructor. Staff.
PSY 620-624 Independent Study (1–4 SH). Supervised, individual investigation of a topic of special interest, generally in the form of an experimental project. However, any activity which affords an opportunity for learning not usually provided by the classroom situation is seriously considered. **Prerequisite:** written approval of the department after submission of an application, including a prospectus, to the department at least two weeks before preregistration.

PSY 631-640 Advanced Research Seminar (2 SH). When registering for PSY 601 and 602 students must co-register in one of the following two-course sequences:

PSY 631, 632 General Experimental Research I and II.
PSY 633, 634 Developmental Research I and II. M. Medvin.
PSY 635, 636 Social Psychology Research I and II. J. McMinn.
PSY 637, 638 Applied Psychological Research I and II. K. Lunnen.
PSY 639, 640 Experimental and Personality Research I and II. S. Webster, S. Pataki.

PSY 650 Research Scholars (2 SH). The research scholars program is for those exceptional students who choose to do a more extensive, three semester capstone research project in psychology. Students eligible for this program must have a 3.5 GPA overall, a 3.5 GPA in psychology, have taken at least three psychology courses, obtained a letter of reference from a faculty member, and must submit a writing sample to the chair of the department. Students accepted into the program begin their projects in the spring of their junior year and defend a thesis in the spring of their senior year. Students must show concurrent enrollment in PSY 601 and 602.

PSY 660, 670, 680, 690 Honors Research (1–4 SH). (See p. 61) Students enrolled in Honors Research participate in PSY Capstone I and II and the Advanced Research Seminars. Students must have a GPA of 3.5 in three or more psychology courses and complete a departmental application for admission to the program.

**RELIGION**

REL 101 Understanding the Bible (4 SH). A historical and critical survey of the content and major themes of the Bible as a foundational source of Western traditions. It will cover methods of interpretation and aim for understanding of the intersection of religion, faith, and history as expressed in the Bible.

REL 102 Understanding Christianity (4 SH). A study of the ways Christians have expressed and explained the Christian faith in various periods of history and in various situations. The relationships among the various denominations and their ways of expressing the faith will be examined.

REL 103 Understanding Theology (4 SH). This course will examine the theological themes of God, Creation, Sin, Redemption, and Sanctification in light of Orthodox, Roman Catholic, and Protestant beliefs. Each theme first will be examined in light of biblical theology. The creeds, rituals, and documents of the three major branches of Christianity will be examined as the basis for discussion of the development of these themes within Christian faith and practice.

REL 106 Old Testament/Hebrew Bible (4 SH). This course provides a survey of the content and major themes of the books accepted as canon in the Jewish and Christian traditions. It will cover methods of interpretation and aim for an understanding of the intersection of religion, faith, and history expressed in these writings. It will also explore the various ways in which Jews and Christians approach and appropriate the texts. It is highly recommended that students majoring in Christian Education or the Christian Traditions concentration take this required course before taking REL 107. Offered Fall Semester.
REL 107 New Testament (4 SH). A survey of the content and major themes of the New Testament. It will cover methods of interpretation and aim for an understanding of the intersection of religion, faith, and history as expressed in these early Christian texts. It will explore the relationship between Christianity and its Jewish roots, as well as theological, ethical, and institutional developments reflected in the New Testament. It is highly recommended that students majoring in Christian Education or the Christian Traditions concentration take REL 106 before taking this course. Offered Spring Semester.

REL 111 Understanding Religious Experience and Expression (4 SH). A cross-cultural study of religious life as a global phenomenon. The course examines the narratives, rituals, symbols, beliefs, forms of salvation, and moralities of the world’s religious communities. Particular attention is given to concepts and tools for analyzing and understanding these expressions and dimensions of human experience.

REL 116 Religions from the Middle East (4 SH). A study of the histories, narratives, rituals, and scriptures of Judaism, Christianity, and Islam, with special attention to Judaism and Islam in the 20th century.

REL 117 Religions from India (4 SH). A study of the histories, narratives, rituals, scriptures, and meditative practices that have historically made up the major religious traditions of India, with special attention given to Hinduism in its modern Indian and Western forms.

REL 118 Religions from China (4 SH). A historical, social, and philosophical study of Confucianism, Buddhism, and Daoism, as these three broad traditions developed and interacted in China from the 6th century B.C. down to the modern era, with specific consideration given to the modern period.

REL 119 Religion in America (4 SH). A study of the many religions which constitute America’s religious mosaic. Attention is given to American religious history from 1600 to the present and to the ways in which religious pluralism relates to America’s commitment to religious freedom and to America’s ongoing quest for unity amid this diversity. This course includes an emphasis on pacifist religious movements and may be counted toward a minor in peace studies.

REL 121 Gender and Religion (4 SH). This course is designed to lead the student in the study of the role of gender in the major Western religions of Judaism, Christianity, and Islam. This study will focus on the religious texts that have been interpreted to define gender roles in these religious traditions. The influence of these religions on the perception of the roles of men and women in culture and society will be examined. The feminist approach to the issues of authority and power in these Western religious traditions will also be addressed.

REL 122 Religion and the Arts (4 SH). A study of the relation of religion and the arts. The focus may be on one or more of the following categories: drama, music, art, literature, and/or cinema. (Also listed as MUS 173.)

REL 131 Early Christianity: Christ and Caesar (4 SH). An examination of the history of the Christian Church within the environment of the Roman Empire during the first five centuries of existence, and of the interaction of the Church with that environment in its political, socio-economic, religious, and cultural aspects. (Also listed as HIS 120.)

REL 201 God and Moses in Torah (4 SH). The first five books of the Hebrew Bible, the Torah (or Pentateuch), are foundational texts for both the religions of Judaism and Christianity and for understanding the foundations upon which western civilization developed. These texts establish the nature of the relationship between God, creation, and God’s people. This course will explore the narratives, laws, and theological themes of this first part of the Hebrew Bible/Old Testament, using a variety of interpretative approaches.
REL 202 Prophetic Literature (4 SH). This course provides an overview of the history, genres and theology of the Hebrew prophets. Students will develop skills for the interpretation of the prophetic books of the Old Testament. Topics include the nature of and audience for Old Testament prophecy as well as its relationship to apocalyptic literature and the New Testament.

REL 205 Apocalyptic Literature of the Bible (4 SH). An introduction to the origins, forms, and theology of Apocalypticism, as manifested particularly in Daniel, Mark 13, II Thessalonians 2, and the Revelation. These books are studied against the background of Jewish intertestamental apocalyptic literature.

REL 206 Jesus (4 SH). (or: All You Ever Wanted to Know about Jesus, but Were Too Afraid to Ask). A survey of research on Jesus of Nazareth, focusing on the accounts of the Gospels and of other early Christian writings, and on methods of interpretation. The course will explore the complexities of research on the historical Jesus and also the intersection of faith and history in the Christian traditions.

REL 207 The Synoptic Gospels (4 SH). A study of the Synoptic Gospels (Matthew, Mark, and Luke), with an emphasis on their historical context and literary content, as well as on their relevance to contemporary life and theological issues.

REL 208 The Gospel of John (4 SH). A study of the Gospel according to John, with an emphasis on its historical context and literary content, as well as on its relevance to contemporary life and theological issues.

REL 209 Paul and His Letters (4 SH). A study of selected letters of Paul, focusing on his experience of Christ as expressed in his writings. It will explore Paul the person, his Jewish and Greco-Roman environment, his convictions about the Jew-Gentile relationship in the light of his experience of Christ, and the relevance of his letters for Christianity today.

REL 211 Eastern Orthodox Christianity (4 SH). An introduction to the Eastern Orthodox tradition, with particular attention to how it evolved and was celebrated in Russia. Students will explore the dogmas, liturgy, iconography, and history of the Orthodox Church; and attention will be given to the relationship between the Church and the State, particularly under communism. Students will also be asked to compare Orthodoxy with Western Christian traditions and with their own notions of worship and religious expression. (Also listed as HIS 153.)

REL 212 Reformed/Presbyterian Theology and Worship (4 SH). What is the Reformed tradition, or Presbyterianism? What beliefs and practices distinguish the Reformed tradition from other Christian traditions? What do Presbyterians believe about the Sacraments (Baptism and the Lord’s Supper)? What about predestination? How does the U.S. government reflect Presbyterian polity? This course will explore these and many other issues that help us understand the hallmarks of the Reformed tradition. Through understanding Reformed theology, we will also examine Reformed worship. Readings from John Calvin’s Institutes of the Christian Religion, the classic text for the Reformed tradition, will be an important part of the course.

REL 216 Celtic Spirituality (4 SH). Using an historical and theological approach, this course explores both the pre-Christian religion and practices of the people known as the Celts and the development of the Celtic Christian tradition. The particular characteristics of Celtic Christianity will be examined in relation to the emphases found in the Roman Catholic tradition. The class will also look at modern communities that are building on the foundations of Celtic spirituality.

REL 217 The Theology of C.S. Lewis (4 SH). This class explores the religion and spirituality of C.S. Lewis by looking at his theological works and his fiction. Students will become familiar with the main events in Lewis’ life, they will gain an understanding of his view of the Christian faith as it is set in its historical context, and they will learn to explain the religious themes in several of Lewis’ works of fiction.
REL 221 Religion and Society (4 SH). A study of religious belief systems, organizations, and movements as they derive from and influence a social context. Attention is given to the debate about secularization and to the increased importance of evangelical Christianity and new religious movements. **Prerequisite:** One lower-level sociology course or permission of instructor. *(Also listed as SOC 303.)*

REL 222 Philosophy of Religion (4 SH). Traditionally, philosophy of religion has focused on arguments for and challenges to the existence of God in the Christian traditions. This course will attempt a broader application of philosophy to the phenomenon of religion. What is religion, and what are the meanings of terms associated with it: belief, faith, truth, the sacred, transcendence, mysticism, and good and evil? What is the relationship between religion and science? What do the data of religion as a global historical phenomenon imply about our understanding of the world and of ourselves?

REL 301 Applied Biblical Interpretation (4 SH). A survey of various methods of interpretation and their application to selected biblical texts. It will explore the possibilities of meanings suggested by the texts and their practical application in contemporary contexts (e.g., church education, ethics, mission, preaching, theology).

REL 302 Biblical Theology (4 SH). An exploration of important issues in biblical interpretation and application, beginning with an investigation of the task and method of biblical theology, as distinguished from systematic theology. It will cover the history of biblical interpretation and consider the relationship between biblical ideas and modern thought. **Prerequisite:** at least one of the following: REL 101, 102, 106, 107, or 209.

REL 311 Method and Theory in the Study of Religion (4 SH). How should we go about the study of religion? Various disciplines (psychology, anthropology, sociology, philosophy of religion) have provided their own approaches, and these methods will be considered briefly. They do not, however, deal with the initial attitude that is adopted toward the phenomenon of religion. A frank admission of our own lack of knowledge, putting our own beliefs to one side, and imaginative re-experiencing, as well as Christian theological attitudes towards other religions, will be considered as possible methodological principles, as will the results of adopting these attitudes.

REL 312 Text and Meaning (4 SH). Hermeneutics is an interdisciplinary study of the methodological principles of interpretation. It examines how human beings experience the world and life as intelligible. We will ask fundamental questions regarding such intelligibility: What is a text? What is a context? What is language? What is meaning? Can everything we perceive be considered texts, including people and the world itself? What are the principles and methods of understanding the world of human “objects”—i.e., forms of human expression such as paintings, laws, literature, music, and religions? **Prerequisite:** Junior or senior status or permission of the instructor.

REL 590-594 Field Experience/Internship (1-4 SH). An opportunity for students to work under guidance in a church or other agency during the Fall or Spring semesters or in the summer. **Prerequisite:** consent of the instructor and the department chair.

REL 601 Religion Capstone (4 SH). This course is required of senior majors in religion and Christian education who are not doing an Honors project in religion.

REL 620-624 Independent Study (1-4 SH). Individual study in a specific academic area under the guidance of a selected faculty member. **Prerequisite:** consent of the instructor and the department chair.

REL 660, 670, 680, 690 All-College Honors Program (1-4 SH). *(See p. 61.)*
**SCIENCE**

**SCI 130 Physics for the Curious (4 SH).** A study of physics from multiple perspectives. First by exploring both how physics developed (from early astronomy) and the boundaries of what it means to do science. We then probe an experimental/applied aspect of physics through a study of the behavior of fluids culminating in the design and construction of model airplanes. Finally we focus on a theoretical aspect of physics using quantum electrodynamics as a case study. D. Armstead.

**SCI 150 Introduction to Forensic Science (4 SH).** A study of the science behind forensic investigations. Case studies will be used to link the science with real world examples. Laboratory experiences involve using forensic analysis techniques to solve a “crime.” H. Boylan.

**SCI 294 Women in Science (4 SH).** A study of the personal and professional lives of women who have succeeded in science careers, within the context of their historical and cultural environments. Political, philosophical, and technological changes affect what science is done, by whom, and for what purpose. Laboratory time will involve projects in the biological and physical sciences, conducting scientific studies similar to those done by many of these women early in their scientific careers. M. Kellner.

**SPECIAL EDUCATION**

**SED 201 Foundations of Special Education (4 SH).** This course is designed as an introduction to the field of special education for students seeking careers in education. It includes such topics as: identification, placement, programming, inclusive practices, advocacy, and other topics relating to persons who have disabilities from historical, medical, educational, societal, and individual points of view. J. Dean, L. Domanski, T. Martin, H. Zinkham.

**SED 402 Behavior Management in Special Education (4 SH).** This course is designed to provide a basic understanding of the characteristics of students with learning and behavior problems with respect to factors that influence the instructional environment while providing classroom management theory and practical applications for students who have special needs. A. Camardese or J. Martin.

**SED 404 Reading Strategies for Exceptional Children (4 SH).** This course is designed to provide specific instructional reading techniques and strategies to assist the learner who has been identified as being at-risk for failure due to poor reading skills or as having special needs. A. Camardese, J. Martin.

**SED 411 Legal Issues and Assessment in Special Education (2 SH).** The focus of the course is on the analysis of legislation, litigation, and administrative rulings related to special education. The course will emphasize the development of legally sound policies and procedures to ensure an appropriate education for students with disabilities. Pre-service teacher candidates will become familiar with a variety of assessment instruments and techniques to use to effectively instruct children who have disabilities in PreK-8 settings. L. Domanski.

**SED 412 Assessment Methods in Special Education (2 SH).** The course will emphasize the development and implementation of assessment procedures for students who have disabilities. Pre-service teacher candidates will become familiar with a variety of assessment instruments and techniques to administer to effectively evaluate children who have disabilities in PreK-8 settings. L. Domanski.

**SED 413 High Incidence Instructional Strategies in Special Education (2 SH).** This course is designed to provide practical application of knowledge about learners who have high incidence disabilities, theory, best practices, regulations, and research as related to a practicum component in PreK-8 schools working with students who have special needs in a classroom setting. The goal
of the courses is to assist future special educators to prepare for the unique role of a teacher in a field that is rapidly changing as a result of shifts in public school policies, school reform, questions of efficacy, limitations of resources, teacher roles and expectations, and advocacy. L. Domanski.

SED 414 Low Incidence Instructional Strategies in Special Education (2 SH). This course is designed to provide practical application of knowledge about learners who have low incidence disabilities, theory, best practices, regulations, and research as related to a practicum component in PreK-8 schools working with students who have special needs in a classroom setting. The goal of the courses is to assist future special educators to prepare for the unique role of a teacher in a field that is rapidly changing as a result of shifts in public school policies, school reform, questions of efficacy, limitations of resources, teacher roles and expectations, and advocacy. L. Domanski.

SED 462 Observation and Assessment PreK-8 Special Education (2 SH). This course is designed to provide pre-service teacher candidates with hands-on experiences in observing and assessing children who have disabilities. In PreK-8 settings, students will teach lessons, progress monitor, administer assessment instruments, use curriculum based measurement, and evaluate and interpret the results for instructional purposes.

SED 572 PreK-8 Special Education Field Experience III (2 SH). This course is an off-campus experience in either a PreK-8 school or institutional setting intended to provide the student with opportunities to participate with teachers and children who have special needs in classrooms. For Early Childhood PreK-4/Special Education PreK-8 majors and other minors who desire an experience with children or youth who have disabilities. Prerequisites: Must have completed at least three semesters and two education courses at Westminster College and have a GPA of at least 2.800. Graded S/U. L. Domanski.

SED 602/ECE 602 Early Childhood PreK-4 and Special Education PreK-8 Capstone (6 SH). Student teaching (12 SH) is a supervised dual student teaching experience open to Early Childhood PreK-4 and Special Education PreK-8 majors who have completed the pattern of required courses. Students are required to participate in related seminars and meetings. In addition to the regular tuition and fees, there is a student teaching fee.

SOCIOLOGY

SOC 101 Principles of Sociology (4 SH). In taking this course, students will become more aware of the effects of social forces on the individual. The course provides an introduction to the concepts and methods used in the systematic study of society. Topics include: social norms, social groups, social conflict, social inequality, social institutions, social change, and the sociological perspective. Staff.

SOC 105 Cultural Anthropology (4 SH). A study of the cultures and social structures of pre-industrial societies, in the contemporary developing world and within still existing indigenous societies. Special attention is given to cultural diversity, theories of societal development, and historical relationships between industrial and pre-industrial societies. K. Park.

SOC 106 Individual and Society (4 SH). Analysis of the interrelationship between society, culture, and the individual with emphasis upon the emergence of self and the participation of the individual in social processes. Attention is paid to comparative theories of action and empirical studies. G. Lilly.

SOC 107 Sociology of Gender (4 SH). An examination of the social and historical influences upon behavior as it is differentiated by gender. The pattern of learning sex roles as well as the current redefinition of such roles will be discussed. Material from a variety of sources will be examined with the intent of both documenting and explaining this differentiation of roles. K. Robison.
SOC 108 Social Problems, Social Policies (4 SH). An examination of societal intentions and actions for resolving issues of public concern such as poverty, unemployment, and the well-being of those who are sick, disabled, displaced, at risk, dependent or racial/ethnic minorities. Both historical and ideological factors will be explored as will be the consequences of action in terms of social programming and policies. G. Lilly.

SOC 200 Studies in Sociology (4 SH). This course will deal with specific aspects of society not included in the regular curriculum and is designed for sociology majors and minors. Topics will be announced prior to registration.

SOC 204 Introduction to Social Work (4 SH). An exploration of the knowledge base, theories, and methods that social workers use. Emphasis is given to the contributions that sociologists have made to social work theory and practice. Several of the major fields of practice are examined including family and child welfare, health care, mental health, criminal justice, and gerontology.

SOC 209 Minority-Majority Relations (4 SH). A study of minority/majority group relationships focusing on the origins and consequences of those relationships Immigration, the Holocaust, internment camps and the U.S. Civil Rights Movement are among the topics covered. Theoretical explanations and historical contexts are discussed. R. Zito.

SOC 210 Gerontology (4 SH). A study of the different social, biological, and demographic aspects of aging. Population characteristics of people over 65 as well as patterns of age-graded expectations will be examined. Special attention will be paid to the changing roles of the elderly in our society as well as attitudes toward aging.

SOC 214 Social Class in America (4 SH). An examination of the various forms and systems of social inequality in human societies, with attention to the mechanisms that perpetuate inequalities, ideologies that legitimize them, and possibilities for social mobility. Particular focus is on social class inequality in the contemporary United States and the social problems of poverty and homelessness. K. Park.

SOC 215 Women in Cross-Cultural Perspective (4 SH). This course examines the contemporary situations of women in Asia, Africa, the Middle East, and Latin America, with particular attention to how their economic, political, family, and religious roles and dominant cultural ideologies influence their world-views, opportunities and experiences. Particular attention is paid to how women themselves construct and experience their lives in various cultural contexts. The experience of societal development within these nations, and its particular consequences for women, will be highlighted throughout. K. Park.

SOC 241 Sociology of Violence and Nonviolence (4 SH). Violence, from a sociological perspective, is considered a social phenomenon that evolves in a socio-historical-political moment. This course will evaluate theory and research on violence and nonviolence from both a macro and micro sociological lens. Topics investigated will be interpersonal violence, violence against animals, hate crimes, school violence, bullying, terrorism, structural violence, and social movements that involve both violence and nonviolence. We will also investigate how race, social class, gender, sexual orientation, age, and ability shapes who is more likely to be a victim or perpetrator of violence.

SOC 303 Religion and Society (4 SH). A study of religious belief systems, organizations, and movements as they derive from and influence a social context. Attention is given to the debate about secularization and to the increased importance of evangelical Christianity and new religious movements. Prerequisite: One lower-level sociology course or permission of instructor. K. Park. (Also listed as REL 221.)

SOC 304 Social Change (4 SH). An investigation into processes by which large-scale modifications of societies occur, current thinking about social evolution, changes in modern society, and
development in developing countries. Prerequisite: One lower-level sociology course or permission of instructor. G. Lilly, K. Park.

SOC 305 Sociology of Organizations (4 SH). A general analysis of human organizations, their structures, normative systems, and conflicts. A special emphasis is placed on theories of bureaucracy. Prerequisite: One lower-level sociology course or permission of instructor. G. Lilly.

SOC 306 Gender and Family (4 SH). This course examines the function, structure and variety of families in American culture. From the “True Womanhood” ideal of the 1850s to the “normalcy” ideal of the 1950s, particular forms of family with their accompanying gender roles have shaped our view of what family should be. Today’s work/family conflicts, class-based childrearing, and conflicting definitions of family and marriage reflect our emotional investment in these earlier ideals. Many of our political issues such as gay marriage, welfare, and health care are marked by the emotional baggage that the term “marriage” and “family” carry. Prerequisite: One lower-level sociology course or permission of instructor.

SOC 307 Sociology of Sport (4 SH). This course examines the social institution of sport through both cultural and structural lenses. Topics covered include: socialization through sport; race, social class, gender and ability construction through sport; sports, media, and mass consumption; the socio-economics of sport; and social change through sport. Prerequisite: One lower-level sociology course or permission of instructor. K. Robison.

SOC 327 Medical Sociology (4 SH). A study of the social aspects of illness and wellness. Special emphasis will be placed on the roles of participants in the health care system, as well as the development of the system itself. Prerequisite: One lower-level sociology course or permission of instructor. G. Lilly.

SOC 350 Social Theory (4 SH). A survey of dominant traditions in classical and contemporary social theory, as derived from their social context. This course is a preparation for more specialized study in sociology. Prerequisite: SOC 101 and one additional sociology or criminal justice studies course. Offered Fall Semester. K. Park.

SOC 590-594 Field Experience/Internship (1-4 SH).

SOC 601 Sociology Capstone I (4 SH). The student will relate a substantive topic to the major theoretical and methodological schools in sociology. To be taken in spring of the junior year. Prerequisites: SOC 250 and SSC 251. G. Lilly, K. Park, R. Zito.

SOC 602 Sociology Capstone II (4 SH). The student will conduct a significant research project in the fall of the senior year. Prerequisites: SSC 252 and SOC 601. G. Lilly, K. Robison, R. Zito.

SOC 620-624 Independent Study (1-4 SH).

SOC 660, 670, 680, 690 Honors Project (1-4 SH). (See p. 61.)

SPANISH

SPA 101 Elementary Spanish I (4 SH). A course designed for students who have had less than one year of Spanish in high school, or who wish to study Spanish as a new language. All four basic language skills — speaking, listening, reading, and writing — are addressed, with particular emphasis on satisfying immediate communicative needs in the language.

SPA 102 Elementary Spanish II (4 SH). A continuation of the skills and emphases stated for SPA 101. Prerequisite: SPA 101 or consent of instructor.
SPA 201 Intermediate Spanish I (4 SH). A course designed for students who have a basic background in Spanish. All four basic language skills — speaking, listening, reading, and writing — are addressed, with particular emphasis on developing oral proficiency. Prerequisite: SPA 102 or consent of instructor.

SPA 202 Intermediate Spanish II (4 SH). A continuation of the skills and emphases stated for SPA 201. Prerequisite: SPA 201 or consent of instructor.

SPA 301 Advanced Conversation and Composition I (4 SH). A course in oral and written practice at the advanced level, designed to develop fluency in speaking and writing Spanish. The emphasis is on the reading of cultural and literary texts, as well as current periodicals, which serve as the basis for group discussion and for writing short essays. Prerequisite: SPA 202 or consent of instructor.

SPA 302 Advanced Conversation and Composition II (4 SH). A continuation of the skills and emphases stated for SPA 301. Prerequisite: SPA 301 or consent of instructor.

SPA 303 Commercial Spanish (4 SH). An introduction to the technical vocabulary of international business, including the writing of business letters and the translation of magazine articles using the computer. Authentic documents and videos are used. The course also examines advertising images, immigration, and business ethics in their cultural and historical context. A competency examination will be given at the end of the course. Prerequisite: SPA 302 or consent of instructor.

SPA 351 Culture of Spain (4 SH). An introduction to major institutions of peninsular Spain in their historical context. The course examines the various factors (historical, social, economic, artistic) that have shaped contemporary cultural identity. The arts and popular culture are included. Prerequisite: SPA 302 or consent of instructor.

SPA 352 Cultures of Hispanic America (4 SH). A study of the cultural diversity of Hispanic America presented through literature, film, and the arts. Attention is given to Mexico, the Caribbean, Central and South America, and the United States in the 20th century. Prerequisite: SPA 302 or consent of instructor.

SPA 401 Studies in the Golden Age of Spain (4 SH). A study of the major literary works of the 16th and 17th centuries and of the cultural values that provide the context for these works. Emphasis will be given to the unique character of the Spanish Renaissance within the greater European movement. Prerequisite: SPA 302 or consent of instructor.

SPA 402 Studies in 19th Century Spain (4 SH). A study of selected works by representative authors from the major literary movements of 19th century Spain, with consideration given to the history, art, and culture of the era. Prerequisite: SPA 302 or consent of instructor.

SPA 403 Spain in the Modern Era (4 SH). A study of representative works of literature from the Generation of ’98, the Generation of ’27, and the postwar period in Spain undertaken in conjunction with developments in the arts, politics, and society. Prerequisite: SPA 302 or consent of instructor.

SPA 404 Hispanic American Short Story (4 SH). A study of the Hispanic American short story within its historical and cultural context from the 19th century until the present. Authors such as Lugones, Borges and Garcia Marquez are included. Prerequisite: SPA 302 or consent of instructor.

SPA 407 Advanced Spanish Language Skills (4 SH). A course emphasizing the development of reading, writing, and speaking skills through textual analysis, creative writing, and oral practice. Short fiction, poems, essays, and articles pertaining to Hispanic culture will serve as models and topics for composition and discussion. Prerequisite: SPA 302 or consent of instructor.

SPA 408, 409 Topics in Spanish: Hispanic America (4 SH). An in-depth study focusing on a major Hispanic American writer, a genre, the literary and artistic production of a particular country, or a significant theme. Prerequisite: SPA 302 or consent of instructor.
SPA 410, 411 Topics in Spanish: Spain (4 SH). An in-depth study focusing on a major peninsular Spanish writer, genre, period, or significant theme. Prerequisite: SPA 302 or consent of instructor.

SPA 590-594 Field Experience/Internship (1-4 SH). Prerequisite: SPA 301 or consent of instructor.

SPA 601 Spanish Capstone (4 SH). A course required of all Spanish majors. The course will examine in some depth a topic in the language, literature, or culture of the Spanish-speaking world. Both classic works and some that are less well known (especially by women and minorities in less industrialized societies) will be examined. Literature, film, and cultural theory are included; methodology is interdisciplinary. Plenary sessions for this course are combined with those of French and German, and are taught in English; however, Spanish majors will also do independent research under the direction of a member of the Spanish faculty and will write their final paper in Spanish.

SPA 620-624 Independent Study (1-4 SH). Courses designed for advanced students who are capable of undertaking individual projects in Spanish language or literature. A comprehensive report or scholarly paper in Spanish is required. Prerequisites: completion of at least three Spanish courses numbered 351 or higher, and consent of the department chair.

SPA 660, 670, 680, 690 Honors Project (1-4 SH). (See p. 61.)

SPEECH

SPE 111 Introduction to Public Communications (4 SH). An introductory course designed to help the student develop and deliver oral presentations. Students will present a variety of oral assignments both informal and formal. At least one presentation will demonstrate the effective use of visual aides and new presentation technologies. In addition, the course presents communication theory which will help the student understand communication processes and develop better listening skills.

SOCIAL SCIENCE

SSC 251 Research Methods for Social Science (4 SH). An introduction to the nature and processes of social science inquiry. Particular attention is given to designing social science research projects, and to techniques for gathering, analyzing, and communicating data from both primary and secondary sources. The course is intended to increase the student’s ability to understand published studies and to enhance student research skills. Prerequisite: Two sociology and/or political science courses. M. Aleprete, G. Lilly, K. Park, S. Smithey, K. Robison, R. Zito.

SSC 252 Data Analysis for Social Science (4 SH). An introduction to methods of tabulating, analyzing, and interpreting empirical social science data; and to the use of computers in social science research. Emphasis is placed on assessing strengths, weaknesses, requirements, and applicability of the various statistical methods. Prerequisite: SSC 251 or some exposure to research methods and instructor permission. M. Aleprete, G. Lilly, S. Smithey, R. Zito.

THEATRE

THE 101 Introduction to Theatre (4 SH). An examination of the process by which dramatic literature becomes theatre. The course examines the forms of comedy, tragedy, and their offshoots as well as the elements of theatre—structure, character, language, scenography—and the styles of theatre with an emphasis on modernism and post-modernism. This course does not meet major requirements.
THE 102 Introduction to Acting (4 SH). Concentrates on approaches to acting and analysis of scenes from an actor’s point of view. The laboratory section concentrates on scene work, monologue exercises, and improvisation.

THE 111 Technical Production (4 SH). An introduction to the fundamentals of technical theatre, THE 111 provides the student with the knowledge of modern stagecraft and the theater plant and with practical experience in handling tools and materials essential to constructing, painting, assembling, dressing, and shifting stage scenery. Students will construct the scenery for departmental productions. Lab and participating as part of the crew for the current main stage productions required.

THE 112 Advanced Technical Production (4 SH). A continuation of THE 111 Technical Production with advanced study of technical aspects of play production. Theory will be emphasized as well as discussion of scenography. Students will construct the scenery for departmental productions. Lab required. Prerequisite: THE 111 or consent of the instructor.

THE 114 Technical Practicum (1 SH). Experiences can include carpentry, lighting, scene painting, costuming, props and management. In addition to gaining marketable skills in various area of technical support and design, the student also has the opportunity to build leadership and interpersonal skills essential for work in the theater. Students are encouraged to shape the experience to their interests and are only limited by the needs of the show in which they are involved. Prerequisite: THE 111 or consent of the instructor.

THE 151 Voice and Diction (4 SH). Theory and practice in the basic techniques of developing a clear and expressive speaking voice. Breath control, proper phonation, full resonance and projection, and articulation will be covered as well as exercises for improving use of pitch, timbre, and vocal quality. (Also listed as COM 151.)

THE 201 Script Analysis (4 SH). A basic study in interpretation: How does a script “mean?” Fundamental skills in “discovering meaning” are developed by examining different models for analysis and synthesis, exercises in interpretation, and the directing of short scenes.

THE 202 Acting II (4 SH). A seminar/laboratory study. The seminar segment will concentrate on more advanced study of approaches to act. The laboratory segment is designed to increase effective use of concentration, observation, sensory awareness, and emotional truth on stage. Prerequisite: THE 102.

THE 203 Acting III (4 SH). A seminar/laboratory study. The seminar segment continues to concentrate on advanced study of approaches to acting. In the laboratory section, more emphasis will be placed on building a character. Activities will include exercises, improvisations, longer scenes, and an increased number of monologues from period plays.

THE 211 American Playwrights (4 SH). This entry-level course introduces students to significant, often groundbreaking dramas by the most acclaimed American playwrights of the 20th century: Eugene O’Neill, Philip Barry, Arthur Miller, Tennessee Williams, Edward Albee, John Guare, Sam Shepard, David Mamet, August Wilson, Tony Kushner, and Suzan Lori-Parks, among others. Students will explore varying use of dramatic content and structure across time and through major American themes, as well as the ever-changing understanding of theatrical convention and innovation. Satisfies IP for Humanities and Culture (HC). (Also listed as ENG 108.)

THE 212 Shakespeare’s Plays (4 SH). An introductory course in the drama and stagecraft of the undisputed Titan of English literature, William Shakespeare. Students will analyze and discuss Shakespeare’s achievement in poetic and theatrical presentations of popular stories for the Elizabethan stage. The syllabus will draw from five to six plays, ranging from comedy to history play to tragedy to romance, and lessons may incorporate screenings of notable films, stage, and TV productions, in their entirety or choice selections. (Also listed as ENG 113 Shakespeare.)
THE 213 African-American Drama (4 SH). This class will explore African-American culture from the days of slavery through the present, examining African-American playwrights’ characters and personal lives, and by exploring the historical climate at the time the texts were written. (Also listed as ENG 124.)

THE 225 Theatre of Social Engagement (4 SH). In this highly participatory course, students will engage the social issues of the day using various interactive performance methods, including Playback Theatre and Augusto Boal’s Theatre of the Oppressed techniques. The course culminates in the creation of an original devised production that addresses a local social issue and is produced in collaboration with an under-represented segment of the local community.

THE 251 Oral Interpretation (4 SH). A study of the methods of creating for a listening audience an interpretation of the printed page. Attention is focused upon literary form, imagery, inflection, word stress, and other factors which influence listener response and understanding, and also which aid in the effective expression of one’s own ideas. (Also listed as COM 251.)

THE 255 Playwriting (4 SH). The playwriting course will look at the challenges of writing play scripts by studying and writing scripts. After exploring language as action, building characters, non-verbal communication through writing scenes, we will work at structuring and writing one-act and two-act plays. (Also listed as WRI 255.)


THE 311, 312, 313, 314 Professional Workshop (1 SH per workshop). A variety of specialized topics will be presented by theatre professionals. Topics may include but are not limited to costuming, make-up, publicity, art’s management, children’s theatre and playwriting. The student will attend two six-hour weekend sessions or four three-hour evening sessions. Grading is S/U.

THE 321 Basic Performance Design (4 SH). This is an introductory course to performance design. The material covered will be primarily hands-on projects designed to provide students the chance for self-expression as it relates to stage design. Skills to be covered will be sketching and drawing, painting, drafting, and model building. Prerequisite: THE 111.

THE 370 Theatre History I (4 SH). History of theatre and its relationship to the arts and sciences: Greek, Medieval, Renaissance and the Age of Reason. Major emphasis of study focuses on the correlation between the physical stage, the theatrical conventions, and the playscripts of the period.

THE 371 Theatre History II (4 SH). History of theatre and its relationship to the arts and sciences: Romantic Period and the Modern/Post-Modern World. Major emphasis of study focuses on the correlation between the physical stage, the theatrical conventions, and the playscripts of the period.

THE 401 Scenic Design (4 SH). Introduction to scenic design for the theatre. Graphic presentation and/or model making. Prerequisite: THE 321.

THE 402 Stage Lighting (4 SH). Supervised practicum in elements of stage lighting: theory and practice. The course provides experience in color theory, instrumentation, methodology, stage electricity/electronics, and control. Prerequisite: THE 321.

THE 404 Directing for the Theatre (4 SH). The course explores the elements comprising an approach to directing for the theatre. Elements include script analysis, stage composition, picturization, and techniques in working with actors. The course is hands-on. Students work from a study script as well as other scripts of their choice. Prerequisite: THE 102.

THE 410 Advanced Topics (1-4 SH).
THE 590-594 Field Experience/Internship (1-4 SH).

THE 601 Theatre Capstone. Advanced Study I (2 SH). Advanced Study I focuses on the scholarly research required to prepare for the performance/practical element of the capstone experience. THE 601 usually culminates in an advanced research paper that explores and explains a specific topic in theatre studies chosen by the student in conjunction with his or her capstone adviser. Prerequisites: advanced junior standing and permission of the instructor.

THE 602 Theatre Capstone. Advanced Study II (2 SH). In Advanced Study II, students apply the practical skills developed while pursuing the theatre major. THE 602 usually culminates in the presentation of scenes related to the topic studied in THE 601. Depending on the student’s area of interest, scenes will be directed, designed, and/or acted in by the capstone student. In some cases, special projects such as directing or designing a main stage production may provide the content of THE 601 and 602 and fulfill the capstone requirement. Prerequisites: successful completion of THE 601 and senior standing.

THE 620-624 Independent Study (1-4 SH).

THE 660, 670, 680, 690 Honors Research (1-4 SH).

WRITING

WRI 111 Writing (4 SH). These courses concentrate on the skills of discovering, selecting, and developing ideas. Students will learn how to research topics, organize and develop their thoughts, and revise and edit their writing with attention to grammar and style. Students will develop their ability to analyze, summarize, and argue. Through these skills, they will learn strategies for effectively developing and expressing ideas to different audiences. As they research, students will develop their ability to use a variety of standard print and electronic sources. Required of all first-year students. Students will take 111 either in the Fall or the Spring Semester. A minimum passing grade of C- is required for graduation.

WRI 121 Honors Writing (4 SH). An advanced course in writing that engages Honors students in challenging and significant readings and sophisticated expository assignments. Prerequisite: Participation in College Honors.

WRI 201 Journalism 1 (4 SH). News reporting and writing, focusing on developing journalistic style and news judgment. Students will learn techniques of researching, interviewing, quoting, editing, beginning makeup and design, and rewriting the “handout,” or news release. This course also includes an introduction to press law, ethics and broadcast news. All students are expected to submit stories for print consideration. Prerequisite: successful completion of WRI 111.

WRI 202 Journalism II (4 SH). Advanced news, feature, and editorial writing course designed to take students beyond the inverted pyramid. The focus is on polishing print and broadcast news writing style, developing techniques of writing various feature stories, and understanding opinion writing. Students will practice copy editing, photo editing, headline writing, caption writing, layout, and design. This course includes a closer study of press law and responsibilities. As lab requirement, students will work with the Holcad staff and submit stories for print consideration. Prerequisite: successful completion of WRI 201.

WRI 251 Creative Non-Fiction (4 SH). Creative Non-Fiction takes as its premise the core of all writing-narrative structure and imagery. In non-fiction, structure becomes plastic and changeable according to a writer’s goals. Students will explore ways to create imagery-rich text. Students will read a wide selection in this genre and analyze what individual writers have done and how they’ve done it.
WRI 252 Career Writing (4 SH). A course in the various types of practical writing required in the workplace. Prerequisite: successful completion of WRI 111.

WRI 253 Poetry Workshop (4 SH). A beginning workshop in which students develop skills in reading, evaluating, writing and revising poetry.

WRI 254 Fiction Workshop (4 SH). A beginning workshop in which students develop skills in reading, evaluating, writing and revising fiction.

WRI 255 Playwriting Workshop (4 SH). A beginning workshop in which students develop skills in reading, evaluating, writing and revising plays.

WRI 256 Screenwriting Workshop (4 SH). A beginning workshop in which students develop skills in reading, evaluating, writing and revising screenplays. (Also listed as FS 256.)

WRI 258 Technical Writing (4 SH). Throughout the ages, writing has always been mediated by the medium in which the words appear. With the advent of computers, in particular the Internet, the medium has shifted from paper-based to computer-based. We are in danger of losing the subtlety of language in the speed of technology and globalism. Instant messaging, e-mail, Web pages and other forms of computer-mediated communication are changing how we communicate with one another. It is important to emphasize that words must still be carefully crafted and writers must consider both the connotation and denotation of the words they choose. Because these documents will be technical in nature, they’ll contain graphs, charts, and a wide variety of visual elements as well as text.

WRI 401, 402 Advanced Writing Workshop (2 SH). A workshop that will meet once a week for two credit hours, in which students will develop their skills in writing and criticism through peer review and interchange with the instructor. Students will work in the genre of their choice. Prerequisites: successful completion of at least one of the following courses: WRI 251, 253, 254, 255 and 256.

WRI 590-594 Field Experience/Internship (1-4 SH).

WRI 620-624 Independent Study (1-4 SH).

Liberal Studies Requirements

Intellectual Perspectives

The following lists of courses are currently approved to meet specific Intellectual Perspective requirements. Students should refer to the Schedule of Classes published each semester by the registrar’s office for the most up-to-date listing of approved courses. Only those courses, which have been approved by the Curriculum Operations Committee and listed in the current Schedule of Classes, will satisfy Intellectual Perspective requirements. It is the student’s responsibility to refer to the approved list of courses when selecting courses to meet these requirements.

Foreign Language: The following courses may be used to satisfy the Foreign Language Intellectual Perspective: FR 201 and higher, GER 201 and higher, GR 201 and higher, LAN 201 and higher, LAT 201 and higher, SPA 201 and higher.

Humanity and Culture: The following courses may be used to satisfy the Humanity and Culture Intellectual Perspective: ART 107, ART 110, ART 206, ART 210, BC 253, CLC 101, CLC 102, CLC 103, CLC 112, CLC 120, CLC 121, CLC 122, CLC 140, CLC 141, CLC 142, CLC 143, CLC 144, CLC 145, CLC 520, COM 205, all ENG 100-level courses, ENG 520, FR 351, FS 212, FS 304, FS 341, FS 342, HIS 101, HIS 102, HIS 105, HIS 106, HIS 121, HIS 122, HIS 123, HIS 124, HIS 126,

Quantitative Reasoning: The following courses may be used to satisfy the Quantitative Reasoning Intellectual Perspective: MTH 110, MTH 131, MTH 135, MTH 150, MTH 152, MTH 250, PS 301, PSY 201, SSC 252.

Religious and Philosophical Thought: The following courses may be used to satisfy the Religious and Philosophical Thought Intellectual Perspective: HIS 120, HIS 153, HIS 234, HIS 253, PHI 101, PHI 102, PHI 135, PHI 200, PHI 202, PHI 212, PHI 218, PHI 230, PHI 240, PHI 250, PS 103, PS 222, REL 101, REL 102, REL 103, REL 106, REL 107, REL 111, REL 116, REL 117, REL 118, REL 121, REL 131, REL 211, REL 216, REL 221, SOC 303.

Scientific Discovery: The following courses may be used to satisfy the Scientific Discovery Intellectual Perspective: BIO 101, BIO 102, BIO 103, BIO 105, BIO 106, BIO 108, BIO 109, BIO 112, BIO 151, BIO 201, BIO 433, BIO 521, CHE 101, CHE 111, CHE 117, ES 160, GEL 110, GEL 121, GEL 521, NS 341, PHY 101, PHY 121, PHY 141, PHY 151, PSY 341, SCI 130, SCI 140, SCI 150, SCI 294.

Social Thought and Tradition: The following courses may be used to satisfy the Social Thought and Tradition Intellectual Perspective: CJS 102, CJS 201, COM 201, COM 202, COM 225, ECO 150, ECO 152, ENV 101, FS 308, GS 105, GS 201, HIS 125, HIS 129, HIS 161, HIS 162, HIS 202, HIS 222, HIS 229, HIS 231, HIS 241, HIS 249, HIS 261, HIS 262, IC 101, IC 102, IC 103, IC 105, MUS 130, PS 101, PS 102, PS 104, PS 214, PS 236, PS 241, PS 331, PS 411, PSY 101, PSY 212, PSY 213, PSY 215, PSY 221, PSY 251, SED 201, SOC 101, CJS 102 (formerly SOC 102), SOC 106, SOC 107, SOC 108, CJS 201 (formerly SOC 201), SOC 209, SOC 214, SOC 215, THE 225.

THE DIRECTORIES

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Linda W. Simpson Charlotte, NC
Julie S. Weagraff Painesville Township, OH

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Peter M. Herchenroether Pittsburgh, PA
William N. Jackson Pittsburgh, PA
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Glenn H. Thompson Butler, PA
Valerie D. Wilden Wexford, PA

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Whitney F. Bohan Warren, OH
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W. Keith McCauley Brookville, PA
Richard L. Nygaard Erie, PA
Mary L. Park Medina, OH
William W. Rankin Gibsonia, PA
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Barbara B. Guffey  Gibsonia, PA
David M. Farner  Somerset, PA
Stephen G. Hartle  Lakewood Ranch, FL
Robert C. Jackson  Grove City, PA
Linda C. Jenkins  Irvington, NY
Thomas S. Mansell  New Castle, PA
Stephen D. McConnell  Sarasota, FL

ASSOCIATE TRUSTEES
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Tawni R. Darby  Student Representative
Jeffrey K. Finafrock  Student Representative
Bethany F. Hicok  Faculty Representative
Terri L. Lenox  Faculty Representative
Peter M. Smith  Faculty Representative

The Administration, 2012-2013
The date of initial appointment to Westminster College is given in parentheses.

Executive Staff

RICHARD H. DORMAN (2008) President of the College
B.M., Susquehanna University; M.Ed., D.Ed., The Pennsylvania State University

GLORIA C. CAGIGAS (1989-92; 1994) Vice President for Institutional Advancement
B.S., Lake Erie College

NEAL A. EDMAN (1988) Vice President for Student Affairs Dean of Students
B.A., State University of New York, Oswego; M.S., Ed.D., Indiana University

JESSE T. MANN (1984) Vice President for Academic Affairs Dean of the College, Professor of French
B.A., Washington and Lee University; M.A., Ph.D., University of Virginia

KENNETH J. ROMIG (2004) Vice President for Finance and Management Services
B.A., Westminster College; C.P.A. (Pennsylvania)

BRADLEY P. TOKAR (1993) Vice President for Enrollment
B.A., M.Ed., Westminster College
President’s Office

SCOTT A. COY (2007)  
Assistant Football Coach  
Assistant Track and Field Coach  
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JAMES E. DAFLER (1988)  
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JEFFREY A. HAND (2005)  
Head Football Coach  
B.S., Clarion University; M.S., Indiana University Southeast

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Assistant Men’s Basketball Coach  
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TIMOTHY J. McNEIL (2007)  
Head Track and Cross Country Coach  
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CAREY ANNE MEYER LaSOR (2004)  
Assistant to the College Chaplain, Young Presbyterian Scholars Program Coordinator  
B.A., Westminster College

JAMES R. MOHR (2003)  
Chaplain  
B.A., Muskingum College; M.Div., Louisville Presbyterian Theological Seminary

MISTY L. MOTTER (2006)  
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B.S., Indiana University of Pennsylvania

DWAYNE L. PAVKOVICH (2005)  
Assistant Football Coach  
B.A., Hiram College; M.Ed., Westminster College

JAN M. REDDINGER (1996)  
Head Softball Coach  
B.A., West Liberty State University; M.S., Eastern Illinois University

MICHAEL M. SANDY (2009)  
Assistant Football Coach  
B.A., Hiram College

ROSANNE M. SCOTT (2001)  
Head Women’s Basketball Coach  
B.A., Bethany College

KEVIN G. SIROKI (2012)  
Head Men’s Basketball Coach  
B.A., Westminster College

TAMMY L. SWEARINGEN (1993)  
Associate Professor of Physical Education  
Assistant Athletic Director  
Head Women’s Volleyball Coach  
B.S., Youngstown State University; M.S., University of Akron
GIRISH THAKAR (1998)  Head Soccer Coach  
B.S., Slippery Rock University

JAYME C. THIEM (2011)  Assistant Women’s Basketball Coach  
B.A., Thomas More College

SHAUN J. TOOMEY (1987)  Athletic Trainer  
B.S., Miami University of Ohio; M.S., Indiana State University

**Academic Affairs**

JESSE T. MANN (1984)  Vice President for Academic Affairs  
Dean of the College, Professor of French  
B.A., Washington and Lee University; M.A., Ph.D., University of Virginia

JEFFREY T. BERSETT (2002)  Associate Professor of Spanish  
Director of Off-Campus Study  
Chair of the Department of Modern Languages  
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CHARLENE KLASSEN ENDRIZZI (1993)  Professor of Education  
Faculty Development Officer  
B.A., M.A., Fresno Pacific College; Ph.D., University of Arizona

PAULA R. FERGUSON (2008)  Facilities Coordinator of Beeghly and Orr  
B.A., Youngstown State University

COLLEEN M. HANNON (2001)  Associate Registrar  
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ELIZABETH ELLIS HINES (1980)  Director of Adult and Graduate Studies  
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B.A., M.Ed., Westminster College

SARAH K. HUEY (1987)  Director of the Learning Center  
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PATRICK D. KRANTZ (2002)  Director of the Drinko Center  
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B.S., West Virginia University; M.S., Northwest Missouri State University; Ph.D., University of Missouri-Columbia

GARY D. LILLY (1977)  Associate Professor of Sociology  
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Chemical Stockroom Manager, Environmental Safety Manager  
B.S., Gannon University
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   B.S., Clarion University

JUNE G. PIERCE (2000)  Registrar
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DEBI S. ROUD (1995)  Preschool Head Teacher
                      Head Women’s Golf Coach
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ERIN T. SMITH (2002)  Associate Professor, Library Director
                      B.S., M.S.I.S., University of Tennessee

RICHARD L. SPROW (1976)  Professor of English
                          All-College Honors Program Coordinator
   B.A., St. Lawrence University; M.A., Ph.D., Purdue University

GARY L. SWANSON (1990)  Director of Audio-Visual Services
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PAUL N. WALLACE (1981)  Director of Information Systems
   B.S., Westminster College; M.S., Michigan State University

ROSS A. WASTVEDT (1990)  Associate Professor of English
                          First-Year Program Coordinator
   B.A., Gustavus Adolphus College; M.A., Ph.D., University of North Carolina, Chapel Hill

Information Systems Office (division of Academic Affairs)

PAUL N. WALLACE (1981)  Director of Information Systems
   B.S., Westminster College; M.S., Michigan State University

BERNARD F. BONNIE (1980)  Manager of Computer Operations
   B.S., Slippery Rock University; M.Ed., James Madison University

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KELLY A. HARTNER (1994)  Enterprise Network Manager  
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Admissions and Financial Aid

BRADLEY P. TOKAR (1993)  Vice President for Enrollment  
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B.A., Grove City College; M.A., University of Texas, San Antonio

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   A.A.B., B.F.A, Youngstown State University

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   B.S., University of New Hampshire; M.Ed., M.A., North Carolina State University

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   B.A., State University of New York, Oswego; M.S., Ed.D., Indiana University

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STEPHANIE J. REED (2010) Assistant Director of Residence Life
   B.A., Baldwin-Wallace College; M.S., Miami University
ANTHONY UBERTI, M.D. (2009)  College Physician  
B.S., Westminster College; M.D. Penn State University Medical School

GINA M. VANCE (2006)  Associate Dean of Student Affairs,  
Residence Life and Leadership Development  
B.S., Mount Union College; M.Ed., Kent State University

The Faculty, 2012-2013

The listing that follows includes full-time members of the faculty and certain administrators who hold faculty rank. The date in parentheses is the year of initial appointment as a full-time faculty member.

*ANDREW W. ADE (2003)  Associate Professor of English  
B.A., Northwestern University; M.A., Ph.D., University of North Carolina, Chapel Hill

MICHAEL E. ALEPRETE JR. (2007)  Assistant Professor of Political Science  
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REGINE C. ANANOU (2009)  Lecturer of Spanish  
B.S., University Paul Sabatier (Toulouse, France); B.A., M.A., University of Toulouse Le Mirail (Toulouse, France)

JAMES ANTHONY (2009)  Lecturer of Mathematics  
B.S., Lock Haven University; M.A., The Pennsylvania State University

DOUGLAS N. ARMSTEAD (2007)  Assistant Professor of Physics  
B.S., University of Michigan; Ph.D., University of Maryland (College Park)

JOSEPH M. BALCZON (1997)  Associate Professor of Biology  
B.S., The Pennsylvania State University at Erie, Behrend College; M.S., Ph.D., The Pennsylvania State University

DAVID L. BARNER (1981)  Professor of Broadcast Communications  
Chair of the Department of Communication Studies, Theatre, and Art  
B.S., M.S., Shippensburg University; Ed.D., University of Pittsburgh

ANNE HAGAN BENTZ (2001)  Associate Professor of Music  
B.M.E., University of Delaware; D.M.A., University of Maryland

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*On sabbatical leave Fall Semester 2012
JEFFREY T.C. BOERNER (2010) Assistant Professor of Mathematics
B.A., St. Olaf College; M.S., Ph.D., The University of Iowa

DORITA F. BOLGER (1981) Professor, Librarian
B.A., The Pennsylvania State University; M.S.L.S., Clarion University

JOHN P. BONOMO (1998) Associate Professor of Computer Science
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B.S., M.A., East Tennessee State University; Ph.D., University of Florida

HELEN M. BOYLAN (2001) Associate Professor of Chemistry
B.S., Westminster College; Ph.D., Duquesne University

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