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:
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  (724) 946-7100 or (800) 942-8033 e-mail: tokarbp@westminster.edu

• ACADEMIC AND FACULTY QUESTIONS:
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  (724) 946-7123 e-mail: mannjt@westminster.edu

• ACADEMIC REQUIREMENTS AND RECORDS:
  June G. Pierce, registrar
  (724) 946-7135 e-mail: piercejg@westminster.edu

• PAYMENT OF BILLS AND BUSINESS MATTERS:
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• CAREER CENTER:
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• CONTINUING EDUCATION/LIFELONG LEARNING PROGRAM:
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  (724) 946-6173 e-mail: gerberca@westminster.edu

• STUDENT AFFAIRS:
  Neal A. Edman, dean of student affairs
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• COLLEGE PUBLIC RELATIONS:
  Mark A. Meighen, senior director, advancement administration
  (724) 946-7191 e-mail: meighema@westminster.edu

• ESTABLISHING ENDOWED OR ANNUAL SCHOLARSHIPS/GRANTS/REQUESTS:
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  (724) 946-7368 e-mail: cagigage@westminster.edu
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2008-2009 ACADEMIC CALENDAR

THE COLLEGE ... AT A GLANCE
Calendar 2008-2009

FALL SEMESTER 2008

Aug. 20 ..................... Wed. ..................... New Faculty Orientation
Aug. 21 ..................... Thur. ..................... Faculty Workshop
Aug. 22 ..................... Fri. ..................... New Students Arrive
Aug. 22 ..................... Fri. ..................... Opening Convocation
Aug. 22–25 .................. Fri.–Mon. ............. New Student Orientation
Aug. 26 ..................... Tues. ..................... Classes Begin
Oct. 11–14 .................. Sat.–Tues. ............. Mid-semester Break
Oct. 15 ..................... Wed. ..................... Classes Resume
Nov. 26–30 .................. Wed.–Sun. ............ Thanksgiving Break
Dec. 1 ..................... Mon. ..................... Classes Resume
Dec. 9 ..................... Tues. ..................... Reading Day
Dec. 10–13 .................. Wed.–Sat. ............. Final Period

FALL SEMESTER DEADLINES 2008

Aug. 28 ..................... Thurs. ................... Last day to Register (without $100 fee)
Sept. 2 ..................... Tues. ..................... Last day to Add/Drop (no fee)
Sept. 2 ..................... Tues. ..................... Last day to Register ($100 fee)
Sept. 2 ..................... Tues. ..................... Last day to add a Fall course
Sept. 9 ..................... Tues. ..................... Last day to Drop ($15 fee)
Sept. 30 ..................... Tues. ..................... Last day to withdraw from 7-week class
(1st half)
Oct. 10 ..................... Fri. ..................... Convert “Incompletes”
Oct. 15 ..................... Wed. ..................... Last day for first 7-week course
Oct. 16–17 .................. Thurs.–Fri. ............ PE2 and second 7-week courses begin
Oct. 17 ..................... Fri. ..................... First-year student mid-term grades due
Nov. 7 ($15 fee) .......... Fri. ..................... Withdraw with “W” (if approved)
Upperclass and Transfer Students
Nov. 7 ($15 fee) .......... Fri. ..................... Drop (one class only)
First-year Students Only
Nov. 10–13 .................. Mon.–Thurs. ........ Early Registration: Spring Semester 2009
Nov. 18 ..................... Tues. ..................... Last day to withdraw from 7-week class
(2nd half)

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SPRING SEMESTER 2009

Jan. 20 ..................... Tues. ..................... Classes Begin
March 14–22 ............... Sat.–Sun. .............. Mid-semester
March 23 ..................... Mon. ..................... Classes Resume
April 10–12 ................. Fri.–Sun. .............. Easter Break
April 13 ....................... Mon. ..................... Classes Resume
May 6 ........................ Wed. ..................... Reading Day
May 7–9, 11 ................. Thurs.–Sat., Mon. . Final Period
May 16 ........................ Sat. ..................... Baccalaureate/Commencement

SPRING SEMESTER DEADLINES 2009

Jan. 22 ........................ Thurs. ................... Last day to Register (without $100 fee)
Jan. 22 ........................ Thurs. ................... Last day to Add/Drop (no fee)
Jan. 27 ........................ Tues. ..................... Last day to Register ($100 fee)
Jan. 27 ........................ Tues. ..................... Last day to add a Spring course
Feb. 3 .......................... Tues. ..................... Last day to Drop ($15 fee)
Feb. 24 .......................... Tues. ..................... Last day to withdraw from 7-week class
                                   (1st half)
Mar. 6 ........................ Fri. ........................ Convert “Incompletes”
Mar. 9 ........................ Mon. ..................... Last day for first 7-week course
Mar. 10–11 .................... Tues.–Wed. ........... PE2 and second 7-week courses begin
April 3 ($15 fee) ............. Fri. ........................ Withdraw with “W” (if approved)
April 6–8 ..................... Mon.–Wed. ............. Early Registration: Fall Semester 2009
April 10–12 ................. Fri.–Sun. .............. Easter Break
April 21 ........................ Tues. ..................... Last day to withdraw from 7-week class
                                   (2nd half)
May 5 .......................... Tues. ..................... Monday classes meet/Classes End

SUMMER SESSION 2009

First Session
June 8 ........................ Mon. ..................... Registration/Classes Begin
July 3 .......................... Fri. ..................... Holiday–No Classes
July 21 ........................ Mon. ..................... Classes End

Second Session (Graduate only)
July 21 ........................ Tues. ..................... Classes Begin
Aug. 10 ........................ 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 1,450 undergraduates, 225 graduate students and 60 Lifelong Learning Program students.

Faculty: Ninety-one 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.

East Central Colleges: Westminster is a charter member of the East Central Colleges Consortium.

Libraries: McGill Library and J.S. Mack Science Library contain 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—intellectually, 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.).

PHILOSOPHY AND PURPOSES

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, appreciate and produce 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. Regionally, Westminster belongs to the East Central Colleges, a consortium of nine liberal arts colleges in Ohio, Pennsylvania and West Virginia.
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. The John L. Miller Room, named in memory of the Honorable John L. Miller ’23, member of the Board of Trustees from 1944-1978 and president of the Board from 1964-1978, is located on the third floor of McGill Library. The J.S. Mack Science Library in Hoyt Science Resources Center was opened in 1974.

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 and sociology; 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 J.S. Mack Science Library, 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

Library support is offered by the two campus libraries, RALPH McGILL MEMORIAL LIBRARY and J.S. MACK SCIENCE LIBRARY. Together they house a collection of more than 283,070 volumes and 850 periodicals and newspapers. The library also maintains videotape collections housed in the Department of Audio-Visual Services, as well as collections of scores, CDs and records in the Music Library, located in Patterson Hall.

Some of the regular facilities and functions located within the library are interlibrary loan, the Curriculum Library, the College archives, and group study spaces.

To provide the best service possible, the library works cooperatively with other libraries both regionally and nationally. On a regional basis, the library belongs to
The College / 15

P LINET. Nationally, the library is affiliated with the On-line Computer Library Center, which serves libraries around the world. The objective of this organization is to make available far more material to each cooperating library than any one of these libraries has in its own collection. Income from the following endowed funds helps to support library activities each year (market value as of June 30, 2007):

- Alumni ..................................... $259,130
- Augustus & Margaret G. Black ... 49,575
- Bleasby Book Fund .................... 20,673
- W. Walter Braham ...................... 45,763
- Mrs. J. Frank Brittain ............... 192,755
- Dr. Earland I. Carlson ............... 76,220
- Wilson & Eve Cochran ............... 60,085
- Electronic Library
  - Information Fund .................... 671,605
- Forry-Galbreath ....................... 21,275
- Friends of the Library .............. 726,991
- Robert N. Grier ’01 .................. 25,916
- Ellis B. & Phila C. Hawkins ....... 15,833
- Elizabeth Nicholls Holmes .......... 6,183
- Mabel Kocher .......................... 5,455
- Virginia T. Leland ................... 22,750
- Margaret S. Lieb ..................... 366,813
- Ida Ligo ............................... 27,809
- The Rev. Dr. & Mrs. John Lorimer 2,016
- Charles H. Lytle ........................ 12,523
- Elizabeth McBane ..................... 5,070
- W. Bruce McCrory ..................... 153,976
- A.H. & F.C. Mercer .................... 20,386
- President James Patterson .......... 22,722
- Charles Edward Purdum ’72 ....... 142,087
- Dr. James D. Sands ................... 42,246
- Emma Sharp ............................ 199,202
- Ida Robinson Smith, Ann Louise Smith, and Ray Smith Memorial . 401,562
- Mrs. Samuel N. Warden .............. 22,110
- Westminster College
  - Women’s Club of Pittsburgh ....... 29,248
- James P. Whitala ..................... 107,247
- TOTAL ................................... $3,755,226

A CADEMIC COMPUTING: Westminster’s state-of-the-art campus network provides all students and faculty with access to local, national and global information resources. Every student has an account on the campus network. This account gives access to electronic mail, the Internet, and numerous other tools for enhancing personal productivity and the learning process. Faculty and students can collaborate at any time using electronic mail and shared storage folders.

Student access to the network is possible from three public computer labs in Patterson Hall, McGill Library, and Thompson-Clark Hall. In addition, students living in residence halls can connect appropriately equipped Windows PCs directly to the network via wall jacks in every student room. And wireless connections are available in libraries and other campus locations so students with laptop computers can conveniently connect to the TitanNet network from many more places throughout the campus.

Other campus resources include more than 23 advanced technology classrooms equipped with large screen projection systems and a complete set of audio/video components. Each of these classrooms contains a workstation which provides access to the campus network and the Internet. Scanning and color printing are available for special projects. Library resources on the network include the card catalog, and other Web-based materials.

Westminster’s home page on the World Wide Web (www.westminster.edu) references information about the campus and provides links to pages used by
faculty and students for course activities. A computing page under Resources on the Westminster home page gives instructions and information about campus computing resources and student PC requirements.

THE CULTURAL ARTIFACTS COLLECTION: The artifacts collection consists of approximately 800 coins and 1,300 other items emanating from a variety geographical areas. Approximately 50 percent of the artifacts are from Egypt and 25 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 25 percent are pre-Christian, mostly Pharaonic Egypt. About 15 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, raffa, 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 faculty study of McGill Library, the second floor of McKelvey Campus Center, and in Mack Library. Care and conservation of the collection is the responsibility of the Cultural Artifacts Advisory Committee and the curator of cultural artifacts, Dr. Samuel A. Farmerie.

OUTDOOR RESOURCES

The Outdoor Laboratory for Biological and Environmental Science is used for courses and research activity in biology, environmental science and chemistry. It comprises three distinct areas: Field Station, Brittain Lake and The College Woods.

BIOLOGY FIELD STATION is a 46-acre plot acquired by Westminster in 1964 and appropriated specifically for field studies in 1981. Less than one mile east of the campus, this area includes a year-round weather station, several buildings, including a Nature Center, Edmiston Memorial Labyrinth, lowland thicket, pasture, 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, provides townhouse-style apartment living for 60 male and female seniors. Each of the 15 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 258 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 143 students.

GALBREATH HALL, completed in 1957 as a memorial to Westminster’s seventh president, Robert F. Galbreath, is a residence housing 176 students and providing food service for on-campus students.

HILLSIDE HALL, constructed in 1885, is the oldest building on campus and provides housing for 129 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 43 students.

RUSSELL HALL, completed in 1952, is a memorial to the College’s fifth president, Robert M. Russell. It contains housing for 138 students.

SHAW HALL, constructed of brick and stone in 1960, is named for Walter C. Shaw, a generous benefactor of the College. It provides rooms for 168 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 16 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; a non-alcoholic student pub; the Drink o Center for Excellence in Teaching and Learning; 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 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, coffeehouse entertainment, and live concerts are sponsored by either the Campus Programming or the Club Room committees.

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 the newly renovated Orr Auditorium.

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 Mass, and Sunday night community Vespers, held in Wallace Memorial Chapel, are provided for the Christian community. A listing of off-campus worship opportunities is available online 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.
The chapel and outreach 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 to mature in the faith. We work to provide faith experiences that will allow our students the opportunity to develop a personal relationship with God.

**THEATRE**

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


**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.

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.

The Symphonic Band is an ensemble of about 80 instrumentalists which presents three concerts per year. Its repertoire ranges from Sousa marches to opera overtures to themes from movies and musicals to 20th century original works for band. The Marching Band is an ensemble of 95-120 instrumental and band front personnel who perform at all home and selected away football games. The Wind Ensemble is a select ensemble of approximately 35 woodwind, brass and percussion players who are distributed basically one on a part and dedicated to performing the very best in modern wind ensemble literature. The Jazz Ensemble, which participates in a variety of concerts both on and off campus, comprises 20-23 instrumentalists dedicated to the performance of jazz.

The Westminster Orchestra performs works from various periods at several concerts each year.

Additional smaller ensembles include: Flute Choir, Woodwind Ensemble, Brass Ensemble, Percussion Ensemble, Opera Workshop, String Chamber Ensemble, Handbell Choir, Musical Pit Orchestra, and Keyboard Ensemble.

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.

**PHYSICAL EDUCATION AND ATHLETICS**

Westminster offers a physical education program that provides all students with an opportunity to participate in sports and recreational activities. The program includes a variety of formal physical education classes, many of which are lifetime sports. The program also requires all students to pass a course in Wellness and to demonstrate a proficiency in aquatics.
Westminster is nationally known for its excellence in intercollegiate athletics. The College is a Division III member of the National Collegiate Athletic Association (NCAA), the Eastern College Athletic Conference (ECAC), 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, running, soccer, softball, tennis, ultimate Frisbee, and volleyball. Club sports have included equestrian, ice hockey, rugby, and men’s volleyball.

**BROADCASTING**

Radio station WWNW, Titan Radio Digital 88.9, broadcasts to the campus and the New Wilmington/Neshannock communities. It can also be heard online at 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.

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 its 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 or 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 KAPPA DELTA is the international honor society in sociology, established at Westminster for juniors or seniors who are majoring or minoring in the discipline. It sponsors a variety of academic and social activities for its members and the larger campus, and generally supports scholarship dedicated to improving the condition of humankind. Members must have completed at least four sociology or social science courses, have an overall GPA of 3.250, and have a 3.250 in the major or minor and a rank in the top 35 percent of their class in general scholarship. The organization may require payment of dues.

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.

GAMMA SIGMA EPSILON is a national chemistry honor society created to encourage excellence in chemical studies. The Rho Lambda chapter was established at Westminster College in 2007. Induction is open to all students who have a 3.300 GPA and have completed 16 semester hours of chemistry courses.

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 20 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 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, locally organized during the spring semester of 2006, was founded to improve the culture of honors on Westminster’s campus. The group, whose Greek letters signify ‘the circle of wisdom,’ will create a sense of unity among honors students and provide further inspiration for students to join the honors program. Membership is limited to students who are participating in the honors program.

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 ALPHA is the campus political science honor society designed to promote scholarship and to reward outstanding students for excellent achievements. With a national headquarters located in Washington, D.C., Pi SigmaAlpha has prerequisites of an all-college average of 3.000 or better, a 3.250 political science GPA, at least 12 graded semester hours in political science, and payment of national dues.

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.

**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.

AMNESTY INTERNATIONAL undertakes research and action focused on preventing and ending grave abuses of the rights of all people. By writing letters and launching educational campaigns, the Amnesty International chapter at Westminster hopes to promote and defend human rights worldwide while raising awareness of global issues. Membership is open to all students and faculty without discrimination.

ARCHERY CLUB, chartered in 2006, was founded to promote archery and to provide a learning and competitive environment for that sport. Membership is open to all Westminster students. A minimum GPA of 2.000 is required to remain on the team.
ARGO—See Student Publications, p. 20.

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) is a committee of the Student Government Association. CPC plans, promotes, and executes campus activities including musical acts, comedians, and off-campus activities. The committee organizes the annual Lil’ Sibs Weekend, co-sponsors Mardi Gras, and sponsors all and spring all-campus formals on the Gateway Clipper. 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.

CHEERLEADERS exist for the promotion of athletic spirit and self-discipline. Good academic standing is required, as is a tryout for the squad.

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.

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 CLUB COMMITTEE was created to manage and operate McKelvey Club Room, the College non-alcoholic bar, and Mueller Theater with paid student help. To serve on this committee, students must maintain a GPA of 2.000. The general manager, assistant manager, and managers must have some previous Westminster College leadership experience. Interviews for management positions are conducted in the spring for the upcoming school year; interviews for bartenders are held in the fall.

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 regarding 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.

COLLEGE FEMINISTS intends to find ways to educate members and the campus community about feminism and how it affects today’s society. Their purpose is to promote equality between the genders and to allow members to discuss their experiences with gender, both positive and negative, in a safe environment free from judgment and ridicule. The organization seeks to overcome oppression and insensitivity and to increase awareness of discrimination and harassment on the basis of gender. Membership is open to the entire Westminster community.

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.
DANCE THEATRE was formed in 1978 and 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.

ECONOMICS CLUB, established in 2005, was formed to attract an interest in the field of economics and expose members to current economic issues within the United States and abroad. The group will bring students and faculty together to exchange ideas about course selection, careers and graduate school applications.

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.

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

FRESH START, a group of upperclass students and resident advisers, executes activities for incoming first-year 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.

FUTURE MEDIA PROFESSIONALS, established in spring 2007, has a six-fold purpose: to stimulate interest in the field of media communications; to promote and encourage professional development among members; to provide an opportunity to discuss and change ideas in the field of media communications; to establish and maintain closer relationships and mutual understanding between communication studies faculty and all students involved; to explore options for continued education and/or career paths upon graduation; and to promote and encourage membership for Lambda Pi Eta. Membership is open to currently enrolled full-time Westminster students.

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 ethical diversity and bridge gaps between denominations.

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. 20.

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

INTERFRATERNITY COUNCIL (IFC) coordinates all fraternity activities at the College. Participation prerequisites include membership in one of the campus fraternities and a GPA of 2.000. 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.

JAC 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 and no dues or requirements are needed.

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. A parade is included in convention activities.

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.

P.E.E.R.S. (Peers Educating and Encouraging Responsibility in Students) is a team of Westminster students who, through the auspices of the Student Health Center and Family Health Council in New Castle, present to the campus and community programs and workshops that address a variety of health-related topics. This group is open to any student. Anyone interested in participating should contact the director of the Student Health Center.

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

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.

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.

ROTARACT CLUB is an international service club that is open to the entire student body and is a club that focuses on community service and gives students a chance to get involved and make a difference. Planned events and projects include Lawrence County Elementary School...
Clothing Drive, Zoo Day with the children of Big Brothers and Big Sisters of New Castle, and various other projects in cooperation with Rotaract’s parent group, New Wilmington Rotary Club. Rotaract is a committed organization that meets every week to discuss new ways to improve our communities while improving ourselves.

SCRAWL—See Student Publications, p. 20.

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.

SHOW CHOIR promotes musicianship and provides opportunities for students to enhance their singing and dancing skills. Membership is open to all Westminster students through an audition process that includes sight singing and dance selection.

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.

Westminster’s 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 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 DRUNK DRIVING (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.

STUDENTS IN FREE ENTERPRISE (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. Marketing 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 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.

The VOLLEYBALL CLUB, reorganized in the 2004 fall semester, is open to all Westminster students. The purposes of this organization are: to promote the game of volleyball; to accomplish sportsmanship and team unity; to give the opportunity to members for leadership and participation; and to play the game of volleyball against other regional and collegiate club 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 dean, assistant director of residence life, assistant dean, and the associate dean. 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; disabilities services; 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 Student Affairs if such services are required.
**CHAPLAIN’S OFFICE**

The College chaplain and his staff coordinate religious life service events and programs involving students, faculty and staff, both on and off campus. *(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. 60.)*

The Career Center’s home page (www.westminster.edu/career) provides information on the job search, internships, civic engagement opportunities, 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/courtesy 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 e-mail 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 and support groups. Off-campus referral sources are available for specialized treatment needs. For more detailed information, visit the Counseling Services page on the Westminster Web site.

OFFICE OF DISABILITY SUPPORT SERVICES

Westminster College is committed to providing services and support for students with physical, psychological, visual, hearing or learning disabilities as defined by the Americans with Disabilities Act and Section 504 of the Rehabilitation Act. All students who seek accommodations for diagnosed disabilities should contact the director of the Office of Disability Support Services (DSS) for further information. Signed comprehensive medical documentation and/or test evaluations that indicate the nature of the disability and appropriate professional recommendations is required. The DSS director will review the documentation, determine if the student is eligible for services, and then coordinate the accommodations, auxiliary aids, academic support, and/or referrals as deemed appropriate, necessary, and within the current resources of the College. Appeals for disagreement with the disability determination should be made in writing to the Dean of Student Affairs.

For more information and forms visit the Disability Support section under the Student Services section on the Westminster Web site.

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, and a tolerance and 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.
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 is available to see students at the Health Center for one hour each weekday and is available for emergencies 24 hours a day, seven days a week. 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.

To protect parents and students against the expense of the more costly illnesses and injuries requiring care and treatment beyond that provided by the College health program, the Westminster College Medical Insurance Plan provides for additional hospitalization, surgical treatment, medical attention, ambulance, and miscellaneous services, including x-rays, anesthesia, operating room, and laboratory tests. Participation in this plan is mandatory for accident insurance and optional for sickness insurance. The enrollment form and additional information may be found in the College insurance brochure.

CAMPUS SAFETY AND SECURITY

Westminster College maintains a staff of law enforcement and 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 Campus Activities Calendar lists events, activities and meetings of interest to the campus community, parents and friends. 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 more 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 first meet with the assistant dean of student affairs and 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 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 assistant 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 Support Services.

**MOTOR VEHICLES**

Any student may bring a car or motorcycle to Westminster, but must register it at the public safety office as soon as it is brought to the campus. The annual registration fee is $30 per motor vehicle. If a student does not bring a vehicle to the College until the Spring Semester, the registration fee is only $15. 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.

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. 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.

Applicants who wish to be admitted through the Lifelong Learning Program should first contact the director of that program. (See p. 39.)

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:

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<thead>
<tr>
<th>Subject</th>
<th>Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>English</td>
<td>4</td>
</tr>
<tr>
<td>Foreign Language</td>
<td>2</td>
</tr>
<tr>
<td>Social Studies</td>
<td>2</td>
</tr>
<tr>
<td>College Preparatory Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>Laboratory Science</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>13</td>
</tr>
</tbody>
</table>

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 (2008-2009)**

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.

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.

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.

Lifelong Learning Program (LLP)

The Lifelong Learning Program (LLP) is an undergraduate program designed especially for non-traditional students. 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. A majority of students choose the accelerated evening program that offers nine-week courses that meet once a week. This unique course work plan provides flexibility to balance an academic program with work and home responsibilities. A six-week summer session also includes both day and evening classes.

Four majors (accounting, business administration, English, and public relations, and a minor in speech communication) can be completed entirely through evening course work and 41 majors can be completed through daytime scheduling. Class sizes are small, providing maximum interaction between faculty and students. All classes are taught by resident faculty in a safe and secure campus environment.

All courses earn regular college credit toward a bachelor’s degree at Westminster College, or can be transferred to another accredited academic institution, taken for enrichment or to broaden knowledge in one’s particular field. For courses previously taken at another accredited institution, a tentative assessment of transferrable credits
The High School/College Dual Enrollment Program offers qualifying high school and home-schooled students the opportunity to prepare for the future while attending high school or taking classes at home. Interested students should contact their high school guidance counselor or call the LLP office at (724) 946-7353 for information about the special conditions that apply.

Westminster College belongs to the East Central Colleges, a consortium which has developed a system of assessment by which college-level knowledge acquired through work or other life experience may be used as the basis for the awarding of college credit. We also have articulation agreements with Butler County Community College, Penn State University-Shenango and Community College of Allegheny County. The College accepts credit by examination from CLEP, ACT-PEP, Advanced Placement and the armed services.

Specific questions may be addressed to the director of the lifelong learning program by calling (724) 946-7353 or via e-mail: 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 in fields such as personal enrichment, professional development, and computers. Some continuing education classes are offered for young people. Schedules are published for fall, spring, and summer classes.

Adults are encouraged to continue their education at Westminster College through both its credit and non-credit programs. For further information concerning any aspect of adult education, contact the director of Continuing Education and Lifelong Learning at (724) 946-7353, or via e-mail: conted@westminster.edu.

**Graduate Study**

A Graduate Catalog and all information concerning the graduate program at Westminster are available at the Office of Admissions or the Department of Education.

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 one graduate course.

Students desiring graduate credit are required to apply for admission to graduate study. For details refer to the Graduate Catalog. 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 should be forwarded to the dean of admissions.

_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, or a first division pass on the European University (0 level) scale in courses which are college preparatory in nature.

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 dean of admissions.
Expenses

Westminster College is a non-profit institution. The basic charges that students pay (tuition, fees, room and board) do not cover the full cost of a Westminster education. For each $70 Westminster receives from students and families, the College spends an additional $30. 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 (2008-2009):

<table>
<thead>
<tr>
<th>Semester Year</th>
<th>Tuition* $12,950.00</th>
<th>Room &amp; Board (double occupancy/Dine 1100)</th>
<th>Student Activity Fee</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$25,900.00</td>
<td>4,055.00</td>
<td>700.00</td>
</tr>
<tr>
<td></td>
<td></td>
<td>350.00</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$17,355.00</strong></td>
<td><strong>$34,710.00</strong></td>
<td></td>
</tr>
</tbody>
</table>

Other Room & Board charges:
- Double Occupancy/Dine 950: $3,905.00 $7,810.00
- Double Occupancy/Dine 800: $3,755.00 $7,510.00
- Berlin Village: $4,065.00 $8,130.00

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) ........................................ $820
Audit fee per semester hour .............................................................................. $34
Damage and loss deposit (Reservation Deposit) ........................................... $200
Late registration fee ......................................................................................... $100
Drop/Add/Withdrawal ...................................................................................... $15
Special examination in case of avoidable absence ..................................... $5 or $8
Graduate Record Examination (Advanced Test) if required ....................... $44
Actuary Exams ................................................................................................. $35
Miller Analogies Test ...................................................................................... $45
National Teacher’s Exam .............................................................................. $145 to $195
Lifetime Transcript Fee (one-time) ................................................................. $30
Music fee for voice or instrument study
   beyond the requirements of the standard curriculum, per weekly half-hour lesson ................................................................. $275
Student Teaching 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 e-mail: meadelb@westminster.edu.
General Information

The charges in this section, Admission and Financial Information, represent the rates in effect at the date of publication, August 2008. 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 $350 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 $105 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

All College fees, including room and board, are payable on or before Aug. 1 for Fall Semester and on or before Jan. 2 for Spring Semester. A late payment fee of $40 will be charged if financial obligations are not satisfied by the due date. A service charge of 1 percent per month, 12 percent annually, may be added to past-due accounts. The College reserves the right to recover all costs involved with the collection and/or litigation of past-due accounts. Students may not receive academic credit or obtain academic transcripts or grades until satisfactory arrangements are made to cover financial obligations.

Checks in payment of student charges may be made payable to Westminster College and sent to the Office of Business Affairs. Monthly statements will be sent to students at their campus address during the regular academic year. Statements also will be sent to students at their home address each month.

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 parents and students directly. Alternatively, information is available by contacting the business affairs, admissions, or financial aid offices.

Credit cards are accepted for payment of student accounts only through TuitionPay Express by calling 1-800-762-8370. There is a teleprocessing fee associated with this service based upon the amount charged. Credit cards are accepted directly at the Bookstore for the purchase of textbooks and supplies.

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 applied 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
- Academic Competitiveness Grant
- National SMART Grant
- 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; Activity Grants; 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 2007-2008, 98 percent of the student body qualified for some form of financial aid. More than $26 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 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.

ACTIVITY GRANTS are available through the communication studies, theatre, and art, and music departments. New students interested in Activity Grants should contact the chair of the appropriate department for further information. Eligibility for a grant is dependent on good academic standing.

SUPPLEMENTAL EDUCATIONAL OPPORTUNITY GRANT 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.ed.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

Academic Policies

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 2008-2009 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. 56.)

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. 59 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 8 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 cornerstone of 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 Perspectives requirements. The general education curriculum culminates in a senior year capstone course in the major.

Throughout the entire curriculum, the applied use of sophisticated information technology 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 innovative educational experience required of all new students and comprised of three curricular elements: (1) Inquiry 111; (2) Writing; and (3) Oral Communication. 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 and engage students in liberal learning. The faculty have identified three outcomes and objectives for this course:

1. Articulate and practice the values and methods of a liberal arts education.

   To accomplish outcome #1, the course should provide 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 the y have to various communities as a result of their education.

2. **Engage, experience and explain different ways of knowing.**
   To accomplish outcome #2, the course should provide 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.

3. **Pursue interdisciplinary study and discussion of important issues.**
   To accomplish outcome #3, the course should provide 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 are required to 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, the applied use of information technology is employed.

**INQUIRY 103**
Inquiry 103 is designed specifically for Lifelong Learning students to introduce and engage them with questions that have traditionally been at the center of a liberal arts education.

**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. 52.) 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 a verage 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 Communications
- Christian Education
- Communication Studies
- Elementary Education
- English Music
- Fine Art
- French
- History
- Latin
- Media Art
- Philosophy
- Political Science
- Psychology
- Public Relations
- Religion
- Sociology
- Spanish
- Theatre

**Bachelor of Science**
- Accounting
- Chemistry
- Biochemistry
- Computer Information Systems
- Computer Science
- Economics
- Mathematics
- 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**
- Intercultural Studies:
  - Sociology and Modern Languages
  - International Politics

**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. 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 upcoming sophomore class are eligible, and selection is competitive. All incoming first-year students who are admitted as Honors Scholars receive the highest academic scholarship – the Vance Honors Scholarship.

High school seniors with a 1300 SAT or 29 ACT score, and a high school GPA of 3.7 are invited to submit an application and essay for the All-College Honors Program. The above are interviewed and selected for the program. Students admitted to the All-College 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 (coordinated by the Honors Program Coordinator), 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’s Handbook, which contains a complete description of the All-College Honors Program, as well as information on the procedures and deadlines for each stage of the program.

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.

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

Internship Program

The internship, a practical on-the-job experience outside the classroom, can be an integral part of a student’s education at Westminster College. An internship 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-the-job 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 fee of $200 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 e-mail information, online databases, 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.

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

Students who wish to enroll in more than 19 semester hours of study in any one semester must apply for permission to carry an academic overload by petitioning the dean of the College. Academic Overload Petition forms are available in the registrar’s office. Permission for an academic overload will be based on the following criteria:

1. Second semester status or higher
2. A GPA of 3.000 or higher in the previous semester
3. Specific programmatic requirements
4. The need to attain or maintain class standing
5. Educational enrichment

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 validated by the instructor’s and adviser’s signatures. 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 five class days of Fall and Spring semesters, a fee of $15 is charged. Ordinarily, courses may be added through the sixth class day and dropped through weeks 1-2 of classes 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 4-10 of classes.

**Withdrawal From a Class**

A student may withdraw from a course after the first two weeks of a full semester, but, since this is after the designated Add/Drop period, 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 late 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.

<table>
<thead>
<tr>
<th>Grade</th>
<th>Percentage</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>4.000</td>
<td>Outstanding quality</td>
</tr>
<tr>
<td>A-</td>
<td>3.700</td>
<td></td>
</tr>
<tr>
<td>B+</td>
<td>3.300</td>
<td>Superior quality</td>
</tr>
<tr>
<td>B</td>
<td>3.000</td>
<td>Superior quality</td>
</tr>
<tr>
<td>C+</td>
<td>2.700</td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>2.000</td>
<td>Satisfactory</td>
</tr>
<tr>
<td>C-</td>
<td>1.700</td>
<td></td>
</tr>
<tr>
<td>D+</td>
<td>1.300</td>
<td>Passing, but inferior</td>
</tr>
<tr>
<td>D</td>
<td>1.000</td>
<td></td>
</tr>
<tr>
<td>F</td>
<td>0.700</td>
<td>Failure to demonstrate even minimal mastery</td>
</tr>
<tr>
<td>I</td>
<td></td>
<td>Incomplete</td>
</tr>
<tr>
<td>T</td>
<td></td>
<td>Temporary</td>
</tr>
<tr>
<td>W</td>
<td></td>
<td>Withdrawn</td>
</tr>
<tr>
<td>WF</td>
<td></td>
<td>Withdrawn Failing</td>
</tr>
<tr>
<td>S/U</td>
<td></td>
<td>Satisfactory/Unsatisfactory</td>
</tr>
</tbody>
</table>

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 (in which a grade of D- or higher was earned) 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, and the previous grade and credit are removed from the GPA calculation. 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. If a student repeats a course at another institution in which a grade of F was earned at Westminster, the F will not be replaced although the requirement may be met.

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

This policy does not apply to students who return to do coursework 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 re-taken 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. 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.

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 $30 is charged to all students upon matriculation to cover all future transcript requests.
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 e-mail 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>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.

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.

*Semesters in college shall include transfer semesters as well as semesters at Westminster College.
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 (p. 65). 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 dean of 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 dean of 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 from the College. All medical withdrawals or leaves must be approved by the dean of student affairs. Specific 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).

**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 any 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.
Summer Session

Westminster plans its Summer Session to serve both undergraduate and graduate students. Special catalogs of courses offered in the Summer Session are issued each year and may be obtained from the Office of Continuing Education and Lifelong Learning or the Office of Graduate Education, respectively. Course listings can also be found online at www.westminster.edu/admissions/summer (for undergraduate Summer Session) and www.westminster.edu/admissions/graduate (for graduate Summer Session).

Admission Procedure

High school graduates who wish to begin the work as a Westminster College first-year student during the Summer Session must follow the regular procedure for admission, specifying that entrance during Summer Session is desired.

Students presently attending Westminster and those from other colleges or universities should contact the Office of Lifelong Learning for a Summer Session application or apply online through the Westminster College Web site (above). If the student has previously attended Westminster, there is no application fee. No official transcript is required unless the student plans permanent transfer to Westminster. In this case, the student must apply through the Office of Admissions and have transcripts from high school and all colleges attended sent to the dean of admissions and indicate that entrance during Summer Session is desired.

Students planning to enter the graduate program should consult the Graduate Catalog, which is available from the Office of Graduate Education.

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

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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).

ii wording adapted from the University of Pittsburgh Law School policy on Academic Integrity www.law.pitt.edu/students/pol_integrity.html.

8. Violating copyright restrictions, i.e., stealing the intellectual property of another.

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) iv
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.iv

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.i

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. The student will send the VPAA written notification that he or she intends to appeal either the finding of a violation or the penalty for the violation.
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 on the AIRB 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 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.

5. When appearing before the AIRB, the student may bring an adviser who is a member of the campus community but who is not a member of the student's family. The adviser may consult with the student during questioning by the AIRB, but the adviser may not participate in that questioning herself or himself.

6. The AIRB’s decision will be reached by majority vote, using the standard of “more likely than not.”

7. Within 48 hours of the student’s appearance before the AIRB, the chair will send the student and the instructor official notification of the Board’s decision.

8. 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.

Letters of appeal should include:

1. The course for which the violation was reported.
2. The name of the instructor reporting the violation.
3. The semester when the report occurred.
4. The penalty imposed for the violation.
5. Whether you are appealing the finding of a violation or the penalty for the violation, or both.
6. The grounds on which you are appealing.
7. A detailed account of the circumstances surrounding the incident which led to the report.

**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. Additional information on this program, and any other matter related to the Pre-Law program, is available from Dr. Edward S. Cohen, chair of Law PAC.

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).

Westminster also participates in a cooperative program with the Case Western Reserve University School of Dentistry, through which students may be eligible to enter Case Western after three years of undergraduate study at Westminster. Additional information on this program, and any other matter related to pre-dental studies, is available from the chair of Med PAC.
Master of Occupational Therapy

Through a cooperative program, Westminster graduates in the psychology-occupational therapy major 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 in 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. Additional information on this program 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.D.S. from Case Western Reserve University. Interested students must interview with Case Western Reserve University upon admission to 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 in 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 is available by contacting the chair of the Medical Professions Advisory Committee.

3-2 Engineering

This five-year program affords students who are seeking an engineering career the advantages of small classes and a liberal arts background at Westminster during the first three years. The student then completes the specialized courses leading to the engineering degree in two additional years at an accredited engineering school. At the conclusion of the five-year program, bachelor of science degrees are awarded from both institutions. Engineering programs available at the schools that Westminster students commonly attend include aerospace engineering, agricultural
engineering, biomedical engineering, ceramic science and engineering, chemical engineering, civil engineering, computer engineering, electrical engineering, engineering and public policy, engineering science, environmental engineering, fluid and thermal engineering, industrial engineering, macromolecular science, mechanical engineering, metallurgy and materials science, mining engineering, nuclear engineering, petroleum and natural gas engineering, polymer science, systems engineering, systems science and engineering.

Students entering these programs 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. Chemical and metallurgical engineering require CHE 117 and 180 in the first year; majors in all other fields should take PHY 151 and 152.

During the Fall Semester of the third year at Westminster, students should apply for admission to the engineering school. They must be recommended by the Westminster program coordinator and have a 3.000 grade point average at the time of application 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 complete the specified courses in their major. More information is available from Dr. Douglas N. Armstead in the Department of Physics.

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. At the conclusion of the five-year program, 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, Shahroukh Mistry, John C. Robertson
Assistant Professors: Marosh Furimsky, Katherine L. Robertson
Chair, Dr. Balczon

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 aim of the Department of Biology is to provide excellent programs that emphasize: 1) independent thinking; 2) use of information resources; 3) critical analysis; 4) experiential learning; 5) collaborative problem solving; 6) integration of ethics and biology; and 7) career preparation. Sequences of courses can be arranged to meet entrance requirements for graduate programs, health-related professional schools, teaching, research, and industry. For information on pre-professional programs, see p. 76. Qualified non-science majors are invited to take courses at all levels.

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
   - Form and Function BIO 334 or 337 or 338, or both 335 and 336
   - Biodiversity and Ecology BIO 360 or 361 or 363
3) eight semester hours of elective courses that must be numbered 300 or above, and from two different concentrations (excluding BIO 560-590, and limited to no more than four semester hours of BIO 620-650 and eight semester hours of BIO 660-690);
4) Senior Capstone BIO 601 and 602.

Supporting courses for the major in biology:
CHE** 117, CHE 261**, PHY 141**
Twelve additional semester hours of supporting courses from MTH 131, 150, PHY 142, CHE 180, CHE 262, CHE 381, CHE 230, 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.

**Many professional and graduate schools require one full year of inorganic chemistry, organic chemistry, and introductory physics for admission. At least one of the following biology courses is also strongly recommended for any student considering professional and graduate school; BIO 316, 331, 362 or 402. It is the student’s responsibility to obtain the specific admission requirements for any prospective professional or graduate school.

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 301, 302, 303 and 401;
3) at least four semester hours of research, as BIO 560-590, 620-650, or 660-690;
4) Senior Capstone BIO 601 and 602.

Supporting courses for the major in molecular biology:

CHE** 117, 261, 262 and 381; MTH 131 or 150; and PHY 141** or 151**.

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

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 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 both 335 and 336; 3) Biodiversity and Ecology – BIO 360 or 361 or 363. 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. No grade lower than a C- may be used to satisfy any requirement for the minor.

Note: A student may not double major in biology, and molecular biology, neuroscience or environmental science. Students must petition the biology department for a biology minor or molecular biology minor.

Interdisciplinary Programs: Requirements for environmental science and neuroscience are found on p. 103 and 124.

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

• successfully complete all requirements for the biology major, as set out above, including one course in each of the three concentration areas;

• 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. If all requirements are to be completed in four years, careful planning in both the major field and in the minor is essential.

Chemistry _____________________________

Associate Professors: Helen M. Boylan, Martha R. Joseph, Timothy A. Sherwood, Peter M. Smith
Chair, Dr. Sherwood

Degree Offered: Bachelor of Science
Major Program: Biochemistry, Chemistry (Four Tracks: Professional Chemist, Forensic Science, Secondary Education, 3–2 Chemical Engineering)
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 faculty of the department believe that the study of chemistry in these ways helps students to develop critical thinking, use logical reasoning, improve problem-solving skills, and communicate clearly and effectively. 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. Requirements for a major in biochemistry are CHE 117, 180, 230, 261, 262, 351, 352, 381, 382, 600, 601 and 602, and BIO 201 and either 301, 302 or 303. In addition, candidates must complete one of MTH 150, 152 or 250 and PHY 141 and 142, or 151 and 152.

The Major in Chemistry: Students majoring in chemistry become candidates for the B.S. degree. Students may elect one of four tracks, depending on their goals.

1. Professional Chemist Track: CHE 117, 180, 230, 261, 262, 333, 334, 340, 351, 352, 391, 600, 601 and 602. In addition, completion of both MTH 150 and 152 or MTH 250, and PHY 151 and 152. The chemistry program is approved

***Requirements for the minor in secondary education are listed under the Department of Education.
by the American Chemical Society. Students who wish to be certified by the
ACS Committee on Professional Training are required, in addition to the above,
to take CHE 381 and meet an advanced math requirement.

2. **Forensic Science Track**: CHE 117, 180, 230, 261, 262, 333, 351, 352, 600,
601, 602, and either CHE 381 or CHE 340. In addition, completion of SCI
150, BIO 201, MTH 150 and 152, and PHY 151 and 152.

3. **Secondary Education Certification Track**: CHE 117, 180, 230, 261, 262,
333, 340, 351, 352, 600, 601 and 602. In addition, completion of BIO 201,
MTH 150 and 152, and PHY 151 and 152.

4. **3-2 Chemical Engineering Track**: CHE 117, 180, 230, 261, 262, 333, and
either 381 or 351 and 352; four of MTH 151, 152, 250, 251 and 261; PHY 151
and 152; completion of a bachelor of chemical engineering degree at an
accredited engineering school. A 3.000 grade point average is required at the
time of application to the engineering school.

No grade lower than C- may be used to satisfy required major courses (designated
with a CHE prefix).

All junior and senior biochemistry and chemistry majors are required to participate
in a weekly seminar. Seniors must pass a comprehensive examination that reflects
the student learning over the complete four-year program.

**The Minor in Chemistry**: Requirements for a minor in chemistry are CHE 117,
180, 230, 261, 262, and either 381 or 333. Note: CHE 333 prerequisites are MTH
150 and 152 or MTH 250, and PHY 151 and 152.

**Pre-Professional Programs**: (See p. 76.)

**Interdisciplinary Programs**: Requirements for environmental science can be
found on p. 103.

**Secondary Education Teacher Certification**: To be eligible for certification in
chemistry, students must successfully complete all requirements for the Secondary
Education Certification Track, as set out above (or Professional Chemist Track
plus BIO 201), the requirements for graduation listed on p. 53, 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, Kathy Koop
Associate Professor: Scott A. Mackenzie
Assistant Professor: Krista A. Birnbaum, Colleen M. Burke Deisler
Instructors: Keith F. Corso, Bradley L. Weaver
Visiting Lecturer: Paula R. Ferguson
Chair, Dr. Barner

Degree Offered: Bachelor of Arts

Major Programs: Broadcast Communications, Communication Studies, Fine Art, Media Art, Theatre

Minor Programs: Broadcast Communications, Communication Studies, Fine Art, Media Art, Theatre

The Major in Broadcast Communications: The objective of the broadcast 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 communications are required to complete BC 102, 111, four semester hours of 120, 251, 253, 311, 601, 602, and at least 16 semester hours of broadcast communications electives. Only four of these 16 semester hours may be earned by completing internships. Only one semester hour of BC 120 broadcast practicum may be taken per semester. Two of the required semester hours of 120 must be as follows: one semester hour working with remote TV broadcasts and one semester hour in radio news. The other two hours may be in any area of student interest. A maximum of six semester hours of BC 120 credit is allowed. In addition, the broadcast communications major is required to complete the following courses outside the major: COM/TE 151, PS 101 or 102 or 104, and ART 306. All BC 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.

The Minor in Broadcast Communications: The minor in broadcast communications requires BC 102, 111, two semester hours of 120, 251, 253 and eight semester hours of electives. Only four elective semester hours may be via an internship.
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.

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 560 Internship (4 SH)
- COM 601 and 602 Capstone (2 SH each)

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 Communication on the Web (4 SH)
- COM 301 Electronic Communication (4 SH)
- COM 303 Sales Communication and Persuasion (4 SH)
- COM 405 Political Communication (4 SH)
- COM 410 Advanced Topics (4 SH)
- COM 560-590 Internship (4 SH)

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

The Minor in Communication Studies: Minors in communication studies are required to take any six communication courses (excluding the introductory speech course). Only one of the six courses may be an internship.

Any course taken to fulfill a major requirement does not count toward the minor.

A total of 24 semester hours is required for the major.
Theatre

The Major in Theatre: The undergraduate curriculum in theatre 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 four of the following
THE 102  Introduction to Acting
THE 111  Technical Production
THE 351  Theatre History
THE 404  Directing for the Theatre

Take both of the following
PE 270  Dance I
PE 272  Dance II
(fulfils two credits or the Westminster PE requirement)

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

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

Take both of the following
THE 114  Technical Practicum (1 SH)

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

Electives
8-16 hours of Theatre electives

No more than eight credits of the THE 211-214 series may be counted toward the major.

The Minor in Theatre: A minor in theatre shall consist of a minimum of 26 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 351  Theatre History
THE 114  Technical Practicum (1 SH) x 2

Theatre minors are encouraged to take PE 270 and 272 (Dance I and II) to fulfill two credits of the Westminster Physical Education requirement.

Elective: 8-12 hours of theatre electives

No more than eight credits from the THE 211-214 sequence may be counted toward the 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 artistic areas. Students are introduced to diverse art forms through foundation studies. Electives may be used to focus on a particular field of concentration.

Majors in fine art are required to take a minimum of 40 semester hours and a maximum of 48 semester hours as follows: ART 101, 102, 104 or 201, 106 or 202, 200 or 250 or 306, 601, 602, one art history elective, and one other art elective.

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 46 to 48 hours in their major plus an additional 12 to 16 hours of courses outside the major for a total of 62 to 64 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 (or another approved institution) during the junior year. Required courses are: ART 102, 250, 560, 601, 602, and 30 semester hours (three quarters) at the Art Institute majoring in a faculty-approved media program in digital photography, multimedia and Web design, and graphic design. BC 253, CS 103 or passing a computer science proficiency exam administered by the art department, PR 101 and PR 202 are required outside the major. ART 102 and CS 103, or the art department proficiency exam, must be completed before going to the Art Institute.

ART 560 may be either a two-credit or four-credit internship usually scheduled for the spring or summer following study at the Art Institute.

Minor in Fine Art: 28 semester hours
Required courses: ART 101, 102, 104 or 201, 106 or 202, 200, or 250 or 306, and one art history course.

Minor in Media Art: 32 semester hours
Required courses: ART 102, 109, 207, 250, 306, BC 102, BC 251, and BC 253. This minor may be completed on campus.
Economics and Business

Professors: David O. Cushman, Daniel E. Fischmar, Gail L. Miller
Associate Professor: Jesse R. Ligo Jr.
Assistant Professors: Rita Madarassy Akin, Jacque L. King, David C. Smith
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
Accounting Major: ACC 201, 202, 300, 305, 306, 310, 320, 350, 410, 601 (capstone course); ECO 150; BA 220, 230, 310, 325; MTH 131 or equivalent.

Pennsylvania’s State Board of Accountancy reduces the professional experience requirement for Pennsylvania CPA candidates who meet Pennsylvania’s 150-hour CPA education requirement from two years to one year. Students intending to sit for Pennsylvania’s CPA examination should consider enrolling in qualifying courses above the minimum number needed to graduate from Westminster to take advantage of Pennsylvania’s opportunity for accelerated CPA certification.

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 education requirements for the state of 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 during their junior year, particularly if they plan to sit for the CPA exam in states other than Pennsylvania.
Business Administration Major: BA 140, 220, 305, 310, (300 or 325), 350, and 601 (capstone) or 602 (capstone, with instructor permission); one from the following: 221, 330; and two other business administration courses (except Field Experience/Internship, BA 160, and SIFE). Required supporting courses are ECO 150 and one additional economics course (except ECO 220 or 601); ACC 201, 202; 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

Economics Major: ECO 150, 220, 310, 320, 601 (capstone), and 16 semester hours selected from the economics course offerings (except Field Experience/Internship) for a total of at least 36 semester hours of ECO courses; MTH 131 or equivalent; ACC 201; ACC 202 or BA 350.

Financial Economics Major: (See p. 104.)
International Business Major: (See p. 106.)
Quantitative Economics Major: (See p. 137.)

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. (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
Accounting Minor: ACC 201, 202, 305, 306 and eight additional hours selected from the accounting course offerings (except Field Experience/Internship).

Economics Minor: ECO 150, 220, and 20 hours selected from the economics course offerings (except Field Experience/Internship).
Human Resources Minor: ECO 150; ACC 201 and 202; BA 310, 360, 361, and 362; and one statistics course offered through any academic department.

Marketing Minor: ECO 150; ACC 201 and 202; BA 305; BA 390 or both PR 101 and 202; BA 410; and one statistics course offered through any academic department.

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: Charlene Klassen Endrizzi, William J. Evans, Darwin W. Huey
Associate Professors: Amy H. Camardese, Linda P. Domanski, Patrick D. Krantz, M. Eileen Morelli
Assistant Professors: SoYoung Kang
Lecturer: Joyce E. Hoellein

Chair, Dr. Domanski

Degree Offered: Bachelor of Arts
Major Program: Elementary Education with optional Special Education certification available
Minor Program: Secondary Education

Department of Education Mission Statement

The mission of the Department of Education at Westminster College is to prepare elementary 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, opportunities with children, and partnerships with schools and agencies enable students to make connections between academic work and the field of basic education.

Competencies are sought in content knowledge, understanding 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 elementary, 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 the Pre-professional Skills tests (reading, writing, mathematics), and the Specialty Area test. French, Latin, music, and Spanish are K-12 certifications. Elementary, special education, and K-12 certifications require the Pre-professional Skills test (reading, writing, mathematics), Fundamental Subjects: Content Knowledge test, 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 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 elementary 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.

• SPECIAL NOTICES •

The State Board of Education adopted changes that affect all of Pennsylvania’s teacher certification programs by adding nine credits or 270 hours or equivalent combination for adaptations and accommodations for diverse students in an inclusive setting and three credits or 90 hours or equivalent combination to meet the instructional needs of English Language Learners. Although regulatory changes became effective on Sept. 22, 2008, the Pennsylvania Department of Education has not yet developed final requirements for colleges and universities to follow. Therefore, additional program requirements will be developed and incorporated into your certification program to comply with new regulations for certifying teachers that become effective on Jan. 1, 2013.

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

Students entering in the 2008-2009 school year who anticipate completing the Elementary Education K-6 or the Elementary Education K-6 and Special Education N-12 certifications must complete coursework and the corresponding Praxis Exams by May of 2012 to be guaranteed these specific teaching certifications. See the chair of the department for additional information about certification level changes that will be in effect for students graduating after Jan. 1, 2013.
Certification Testing: The commonwealth requires a battery of examinations for teacher certification candidates. For elementary education majors, the Pre-professional Skills Tests: reading, writing, mathematics, and the Fundamental Subjects: Content Knowledge Test of the Praxis Series Examination must be passed prior to enrolling in the elementary education Elementary Block or the Special Education Block. For secondary education majors, the Pre-professional Skills Tests: reading, writing, and mathematics of the Praxis Series Examination must be passed prior to enrolling in EDU 451 Teaching in the Secondary School. Elementary education majors should complete the Elementary Education: Curriculum, Instruction, and Assessment test before the Fall Semester of the senior year. Special Education certification track students should complete the Education of Exceptional Students: Core Content Knowledge 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. Foreign Language candidates must also pass the Fundamental Subjects: Content Knowledge Test prior to entry to EDU 451.

### PRAXIS II PASS-RATE DATA
#### PROGRAM COMPLETERS—2002-2007

<table>
<thead>
<tr>
<th>TEST</th>
<th>WESTMINSTER</th>
<th>STATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic Skills</td>
<td>94%</td>
<td>99%</td>
</tr>
<tr>
<td>Professional Knowledge</td>
<td>96%</td>
<td>96%</td>
</tr>
<tr>
<td>Content Area</td>
<td>89%</td>
<td>93%</td>
</tr>
<tr>
<td>Summary</td>
<td>94%</td>
<td>93%</td>
</tr>
<tr>
<td>Elementary Education: CIA</td>
<td>94%</td>
<td>97%</td>
</tr>
<tr>
<td>Elementary Content</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>PPST-Reading</td>
<td>94%</td>
<td>100%</td>
</tr>
<tr>
<td>PPST-Writing</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>PPST-Mathematics</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Elementary Education

The Major in Elementary Education. Students who declare an intent to major in elementary 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 elementary 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) Praxis Series Examination scores; and 5) performance in courses offered by the department; 6) performance in all academic work.

**REQUIRED EDUCATION COURSES**

- EDU 201 Foundations of Education
- EDU 204 Educational Technology
- EDU 311 Teaching Science in the Elementary School*
- EDU 562 Field Experience-Elementary
- PSY 231 Educational Psychology
- SED 201 Foundations of Special Education

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

**REQUIRED CERTIFICATION COURSES**

- **Mathematics** six semester hours of college-level math (Ch 354.23)
- **Life Science** one course, BIO 101 recommended
- **Physical Science** one course, PHY 101 recommended
- **Geography** GEO 101
- **World History** one course
- **American History** one course
- **Visual/Performing Arts** one course from art, music or theatre, MUS 180 recommended
- **Composition/Literature** six semester hours of college-level English composition and literature (Ch 354.23)

**PREREQUISITES TO THE ELEMENTARY BLOCK ... FORMAL ADMISSION TO CANDIDACY**

The Elementary Block is taken in either the Fall Semester or Spring Semester of the junior year. Exceeding 64 semester hours and meeting the stated Elementary Block prerequisites constitutes formal admission to candidacy.

Requirements for entering the Elementary Block are: 1) a minimum all-college GPA of 3.000; 2) a minimum GPA of 3.000 in EDU 201, 204, 311, PSY 231, 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 Pre-professional
Skills Tests: reading, writing, mathematics, and the Fundamental Subjects: Content Knowledge Test of the Praxis Series Examination; 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.**

**ELEMENTARY BLOCK**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDU 301</td>
<td>Teaching of Mathematics in the Elementary School</td>
</tr>
<tr>
<td>EDU 302</td>
<td>Language Arts and Children’s Literature in the Elementary School</td>
</tr>
<tr>
<td>EDU 303</td>
<td>Teaching of Reading in the Elementary School</td>
</tr>
<tr>
<td>EDU 304</td>
<td>Teaching of Social Studies in the Elementary School</td>
</tr>
</tbody>
</table>

The Elementary Block also includes practicum experiences in the public schools.

**STUDENT TEACHING—ELEMENTARY**

Student Teaching is typically completed in the Fall semester of the senior year.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDU 601</td>
<td>Student Teaching and Seminar—Elementary (16 semester hours)</td>
</tr>
<tr>
<td>EDU 603</td>
<td>Student Teaching and Seminar for students completing more than one certification area (8 semester hours)</td>
</tr>
</tbody>
</table>

**OTHER INFORMATION FOR ELEMENTARY EDUCATION**

Recommended electives include another class in music, art, or theatre, SOC 101, 102, 201 and 209, EDU 203, and 572 and PSY 101, 221 and 411.

It is also suggested that elementary education majors complete a minor in one of the following disciplines:

- Art
- Biology
- Broadcast Communications
- Computer Science
- English
- Foreign Languages
- Music
- Psychology
- Theatre
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Chemistry General Science
Childhood Development History
Communication Studies Mathematics

The general science minor for elementary education 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 Praxis Series Examinations
• Graduation
• Recommendation for Pennsylvania certification

SPECIAL EDUCATION CERTIFICATION

The Special Education Block may be taken by elementary education majors who have an overall minimum GPA of 3.000 and a 3.000 in their major, and who have passed the PPST Reading, Writing, Math, and Fundamental Subjects: Content Knowledge assessments and are of junior level standing.

SPECIAL EDUCATION BLOCK

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>SED 401</td>
<td>Legal Issues and Assessment in Special Education</td>
</tr>
<tr>
<td>SED 402</td>
<td>Behavior Management in Special Education</td>
</tr>
<tr>
<td>SED 403</td>
<td>Instructional Strategies for Special Education</td>
</tr>
<tr>
<td>SED 404</td>
<td>Reading Strategies for Exceptional Children</td>
</tr>
</tbody>
</table>

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

STUDENT TEACHING—ELEMENTARY WITH SPECIAL EDUCATION CERTIFICATION

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

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDU 602</td>
<td>Student Teaching and Seminar—Elementary</td>
</tr>
<tr>
<td>SED 602</td>
<td>Student Teaching and Seminar—Special Education Certification</td>
</tr>
</tbody>
</table>

SUCCESSFUL COMPLETION OF THE PROGRAM INCLUDES:

• Satisfactory completion of the prescribed course work
• Qualifying scores on the appropriate Praxis Series Examinations
• Graduation
• Recommendation for Pennsylvania certification
A Psychology Track (PSY 101, 221, 411) is an option for students electing the Special Education certification. These three psychology courses: Introduction to General Psychology (PSY 101), Childhood and Adolescence (PSY 221), and Exceptional Child (PSY 411) are suggested electives.

Secondary Education

The Minor in Secondary Education. Students who plan to qualify for the secondary school teaching certificate declare a minor in secondary education during their sophomore year. 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

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>College level mathematics</td>
<td>six</td>
</tr>
<tr>
<td>English Composition and Literature</td>
<td>six</td>
</tr>
<tr>
<td>EDU 201 Foundations of Education</td>
<td></td>
</tr>
<tr>
<td>EDU 351 Reading in the Content Area</td>
<td></td>
</tr>
<tr>
<td>PSY 231 Educational Psychology</td>
<td></td>
</tr>
<tr>
<td>EDU 582 Field Experience—Secondary</td>
<td></td>
</tr>
<tr>
<td>EDU 451 Teaching in the Secondary School</td>
<td></td>
</tr>
<tr>
<td>EDU 452 Student Teaching and Seminar—Secondary</td>
<td></td>
</tr>
<tr>
<td>EDU 453 (eight credits)</td>
<td>For students completing two certification areas</td>
</tr>
</tbody>
</table>

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 Praxis Series Examination and the Fundamental Subjects: Content Knowledge Test for foreign language students; 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 EDU 201, 351, 582 and PSY 231 (the secondary education minor); 6) a minimum GPA of 3.000 in the major 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: Richard L. Sprow, David G. Swerdlow
Associate Professors: Bethany F. Hicok, Deborah C. Mitchell, Ross A. Wastvedt
Assistant Professors: Andrew W. Ade, Suzanne G. Prestien
Visiting Instructor: Kristianne Kalata Vaccaro
Lecturers: Evann G. Garrison, Delores A. Natale
Chair, Dr. Wastvedt

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.

**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)**
2. **ENG 250 (Seminar: Introduction to Literary Studies and Critical Theory, Part II)**
3. **ENG 300s (Studies in Context)**
4. **ENG 400s (Seminars)**
5. 1 additional ENG 300/400 level course
6. **ENG 560 (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 560 or an additional English 300/400.*
7. **ENG 601 (English Capstone: Advanced Study I)**
8. **ENG 602 (English Capstone: Advanced Study II)**

In addition, majors may select an additional eight semester hours as electives. All English courses can count as electives.

**The Guidelines for College Honors in English:** See also Honors, Honors Project, and Independent Study (p. 59). All English Honors students participate fully in ENG 601-602: Capstone (Honors students register for these as ENG 664-674) and receive a letter grade at the end of each semester they are registered for Honors.
work. Honors students also register for ENG 682 in the spring of their senior year, when they are revising their project and preparing their Honors defense.

**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. 53 and the minor in secondary education. Requirements for the minor are listed under the Department of Education, p. 98. *Note:* Student teaching does not fulfill the ENG 560 (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, 302, 401, 402 and WRI 201, 202.

The Major in Public Relations: Public relations majors must complete 40 semester hours, as follows: PR 101, 202, 302, 401, 402, 501, 560, and 601; WRI 201, 202.

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 28 semester hours, as follows: PR 101, 202, 302, 401, 402; WRI 201.

SUGGESTED COURSE SEQUENCING:

First Year:
PR 101 Principles, Practices and Theory of Public Relations

Second Year:
WRI 201 Journalism I/Lab
PR 202 Advertising and Public Relations: Approaches and Methods
WRI 202 Journalism II/Lab
PR 302 Public Relations Research

Third Year:
PR 401 Public Relations Writing
PR 402 Public Relations and the Media
Fourth Year:
PR 501 Public Relations Experiential Studies
PR 560 Public Relations Internship
PR 601 Public Relations Capstone

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 careers in environmental science. Program coordinator, Dr. Helen Boylan.

Requirements: BIO 201, 202, 203; CHE 117, 180 or 261; MTH 135; PHY 141 and 142 or 151, 152; ES 160, 230, 362, 601, 602; ENV 401; and four semester hours in a course numbered 560, 620, or 660. In addition, eight 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, 462, 463, 464; CHE 261 or 180, 262, 340, 375, 381; PHY 221; ES 250, 465, 624, 664; GEL 121.

Travel courses may be approved for elective ES credit. A student may not use more than one approved travel seminar as an elective course.

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. Shahroukh Mistry.

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 251  Environmental Policy & Politics

Group II
ART 105  Art and Nature
BIO 101  Concepts of Biology
BIO 361  Biodiversity
BIO 360 / ES 360  Ecology
CHE 375  Green Chemistry
ENG 138  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: ACC 201, 202, 305, 306; BA 220, 300 or 325, 350, 380; ECO 150, 220, 310, 320, 340, 365, 385, 601; MTH 131 or equivalent. Students must earn grades of at least a C- in these courses, and compile at least a 2.000 GPA.

Gender Studies ________________________
(minor program only)

The gender studies minor was established in the Fall of 1997. It is a multi-disciplinary academic program focusing on gender. Approved courses from communications, English, history, modern languages, psychology, religion, and sociology are available at this time. Other disciplines are planning to submit courses for approval in the future.

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.

SOC 107 is required for all gender studies minors.

Five electives from courses designated as gender studies courses are also required. Fifteen courses are presently approved with more being added on a continuing basis. The 16 presently approved courses are listed below.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
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<tbody>
<tr>
<td>CLC 101</td>
<td>Numbers/Narratives</td>
</tr>
<tr>
<td>CLC 112</td>
<td>Folktales, Myths</td>
</tr>
<tr>
<td>CLC 114</td>
<td>Studies in Latin American Literature</td>
</tr>
<tr>
<td>CLC 141</td>
<td>Images of Women</td>
</tr>
<tr>
<td>ENG 123</td>
<td>Gay Lit</td>
</tr>
<tr>
<td>ENG 405</td>
<td>Feminism</td>
</tr>
<tr>
<td>HIS 129</td>
<td>History of Women in Modern Europe</td>
</tr>
<tr>
<td>HIS 305</td>
<td>Marriage, Family and Sexuality in History</td>
</tr>
<tr>
<td>IC 102</td>
<td>Reading the World</td>
</tr>
<tr>
<td>PSY 331</td>
<td>Psychology of Women</td>
</tr>
<tr>
<td>REL 121</td>
<td>Gender and Religion</td>
</tr>
<tr>
<td>SCI 294</td>
<td>Women in Science</td>
</tr>
<tr>
<td>SOC 107</td>
<td>Sociology of Gender</td>
</tr>
<tr>
<td>SOC 215</td>
<td>Women in Cross-Cultural Perspective</td>
</tr>
<tr>
<td>SOC 306</td>
<td>Gender and Family</td>
</tr>
<tr>
<td>COM 201</td>
<td>Interpersonal Communication</td>
</tr>
</tbody>
</table>

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.

**Intercultural Studies—Sociology and Modern Languages**

This program, sponsored by the Department of Political Science and Sociology and the Department of Modern Languages, is composed of designated courses from sociology, modern languages, and history. The purpose of the program is to provide the linguistic and cultural background appropriate for careers, research or further study.

Requirements: Twenty-eight semester hours in sociology, including SOC 101, 105, 209, and 250; SSC 251 (not included in the 28 semester hours in sociology); 16 semester hours in modern languages and eight semester
hours in history; for French, the required language courses are 301, 302, 351, and 564; for Spanish, the required language courses are 301, 302, 564, and either 351 or 352. The required history courses to accompany French are HIS 125 and HIS 136. The required history courses to accompany Spanish are HIS 171 and 172. The capstone course for this major is French/Spanish 601. Majors are required to participate for at least 10 weeks in an approved international study program, normally in a country in which their respective language (French or Spanish) is spoken. Courses in this program satisfy the Social Thought and Tradition, Humanity and Culture, and Foreign Language Intellectual Perspectives. Students must earn a grade of C- or higher in all required courses.

International Business __________________

This program, sponsored by the departments of economics and business and 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: ACC 201 and 202; ECO 150 and 365; MTH 131 or equivalent; BA 140, 220, 221 or 330, 305, 310, 350, 410, 602 (or 601 with permission); 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. 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 Politics __________________

This program, sponsored by the Department of Political Science and Sociology, and the Department of Modern Languages, is composed of courses in political science and a modern language. It also requires specific courses from history and economics. Students must complete one semester in an international study program. The purpose of the program is to prepare students for further study and careers in government and in multinational enterprises.

Requirements: Twenty-four semester hours from political science, including PS 101, 102, 103, 104, and any two from the following, PS
222, 231, 232, 233, 234, 236, 254, 255, 301, 331, 332, 342, 431, 560, or other political science course approved by the International Politics Major Committee; 12 semester hours numbered 301 or above in French, Spanish, or any other language upper level course approved by the International Politics Major Committee; 12 additional semester hours—HIS 101 and 102, and ECO 150. Students must complete one of the following courses: FR 601, PS 601, or SPA 601. Courses in this program satisfy Foreign Language, Humanity and Culture, and Social Thought and Tradition Intellectual Perspectives. Students must earn the grade of C- or better in all required courses.

Mathematics and Computer Science

Professors: Carolyn K. Cuff, Barbara T. Faires
Associate Professors: John P. Bonomo, Terri L. Lenox, C. David Shaffer
Assistant Professors: Natacha Fontes-Merz, Pamela A. Richardson
Chair, Dr. Cuff

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. 76.

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 eight 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. 103). The quantitative economics program is offered through the departments of mathematics and computer science and economics and business (see p. 137).

**Graduation Requirements:** In addition to the graduation requirements found on p. 53 a major must attain a C- or higher in support courses. Also, all prerequisite 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.

**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:** MTH 152, 241, 250, 261, 361, 451, 601, plus EITHER MTH 150 and at least 12 credit hours of mathematics courses number 300 or higher OR at least 16 credit 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.

**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 credit hours numbered 300 or higher, and MTH 431 (EDU 431) Teaching Mathematics in the Secondary School, the requirements for graduation listed on p. 53, 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 credit hours in mathematics courses numbered 150 and above. The courses must include MTH 152, 241, 250, 253 OR 261, and at least four credit 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.

**Major in Computer Science—Required Courses:** CS 151, 152, 251, 311, 321, 331, 411, 421, 601, 602; and at least three of any 300 or 400 level CS courses and MTH 321; also required are MTH 150, 152, 241; and one of PHY 151, 152, BIO 201, 202 and 203; CHE 117 and 180.

**Major in Computer Information Systems—Required Courses:** CS 151, 152, 221, 251, 310, 321, 351, 601, 602; and at least two of any 300 or 400 level CS course. One elective may be selected from the following: CS 252 or CS 271. Also required are MTH 150 or 131, 241, ACC 201, ACC 202 or MTH 135, and ECO 150.

**Minor in Computer Science—Required Courses:** CS 151, 152, 251; plus three of any 300 or 400 level CS course; also required is MTH 241.

**Minor in Information Systems—Required Courses:** 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**

Professors: Carol M. Bové (French), Jesse T. Mann (French)
Associate Professors: Jeffrey T. Berset (Spanish), Camila Bari de Lopez (Spanish), Ann L. Murphy (French, Spanish)
Assistant Professors: Joel T. Postema (Spanish)
Lecturer: Milagros Z. Swerdlow (Spanish)
Chair, Dr. Bersett

**Degree Offered:** Bachelor of Arts
**Major Programs:** French, Spanish
**Interdisciplinary Major Programs:** Intercultural Studies – Sociology and Modern Languages; International Business; International Politics
**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. 98).

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 560-590 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 101 or 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 560-590 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. 98).

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 560-590 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 101 or 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 560-590 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. 98).

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 Professor: Anne H. Bentz, Nancy J. DeSalvo, Robin Anna-Karin Lind
Assistant Professors: R. Tad Greig, Daniel Perttu
Instructor: Jonathan R. Moser
Chair, Dr. DeSalvo

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 96 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 hours’ credit in music.
Programs for Majors

BACHELOR OF MUSIC—The Major in MUSIC EDUCATION

The curriculum prescribes the following courses:

- **Theory (20 sem hrs)**  
  MUS 121, 121L, 122, 122L, 123, 123L, 124, 124L, 126
- **History (8 sem hrs)**  
  MUS 141, 142
- **Conducting (3 sem hrs)**  
  MUS 271, 272, 273
- **Pedagogy (7 sem hrs)**  
  MUS 200, 201, 202, 203, 204, 205, 206
- **Technology (1 sem hr)**  
  MUS 261
- **Professional Education**  
  PSY 231, MUS 182, 183, 184, 195, 196

(32 sem hrs)*

- **Private Lessons (7 sem hrs)**  
  7 semesters’ private study in primary instrument or voice

- **Large Ensembles (7 sem hrs)**  
  7 separate semesters’ participation in a Large Ensemble

- **Music Electives (3 sem hrs)**  
  3 one-hour electives in music from group of MUS 207, 208, 209, 212, 213, 367
  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 three: MUS 212, 213 or 367.

- **Music Literature (4 sem hrs)**  
  1 four-hour elective in music from group of MUS 164, 167 or 168

- **Capstone Recital (4 sem hrs)**  
  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 6 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).

**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:

- **7 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; review of graduation audit (3.000 GPA is required to student teach)
Note: Continuance in the program is dependent upon maintaining a cumulative GPA of 3.000. 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 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 Observations in the public schools
• Attain a cumulative GPA of 3.000 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 181, 182, 183 and 184)
• 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
• File the Pennsylvania Child Abuse History Clearance and the Pennsylvania State Police Request for Criminal Record Check early 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 PERFORMANCE

The curriculum prescribes the following courses:

- **Theory (28 sem hrs)**  
  MUS 121, 121L, 122, 122L, 123, 123L, 124, 124L, 125, and elect two courses from 126, 127, or 128

- **History (8 sem hrs)**  
  MUS 141, 142

- **Music Literature (12 sem hrs)**  
  Elect three courses from MUS 161, 162, 163, 164, or 165
  Voice concentrations must take MUS 163
  Piano concentrations must take MUS 161
  Organ concentrations must take MUS 162

- **Conducting (2-3 sem hrs)**  
  Piano and Organ concentrations take 3 semester hours, specifically MUS 271, 272, and 273
  Voice concentrations take 2 semester hours, specifically MUS 271 plus either MUS 272 or 273

- **Technology (1 sem hr)**  
  MUS 261

- **Private Lessons (21 sem hrs)**  
  1 sem hr in first semester of first year, in voice (MUS 381), piano (MUS 383), or organ (MUS 387), plus 2 sem hrs in each of the next seven semesters - allowable only in voice (MUS 391), piano (MUS 393), and organ (MUS 395)
  Voice concentrations also take 6 sem hrs (1 each for 6 sem) in piano (MUS 383)
Piano concentrations also take 2 sem hrs (1 each for 2 sem) in voice (MUS 381) and 4 sem hrs (1 each for 4 sem) in organ (MUS 387).

Organ concentrations also take 2 sem hrs (1 each for 2 sem) in voice (MUS 381) and 4 sem hrs (1 each for 4 sem) in piano (MUS 383).

Large Ensembles (7-8 sem hrs)

Music Electives (4 sem hrs)

Additional Ensembles (0-2 sem hrs)

Junior Recital (2 sem hrs)

Capstone Recital (4 sem hrs)

Techniques (5 sem hrs)

Piano and Organ concentrations take 8 semesters of Large Ensemble.

Voice concentrations take 7 separate semesters of Large Ensemble.

One four-hour elective in music.

Voice concentrations ONLY take 2 sem hrs of musical or opera workshop.

MUS 397 Junior Recital.

MUS 601 Capstone Recital.

Voice concentrations take MUS 206, 207, 208, 209, 244.

Piano concentrations take MUS 210, 215, 243, 244, 245.

Organ concentrations take MUS 211, 215, 243, 244, 251.

*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

1 Sophomore Hearing

one at the end of each semester’s primary private lessons

performance and portfolio review during second semester of sophomore year.
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:

Theory (24 sem hrs) MUS 121, 121L, 122, 122L, 123, 123L, 124, 124L, 125, and either 127 or 128
History (8 sem hrs) MUS 141, 142
Literature (8 sem hrs) MUS 162, 164
Conducting (3 sem hrs) MUS 271, 272, 273*
Technology (1 sem hr) MUS 261
Professional Education MUS 182
(4 sem hrs)
Pedagogy (1 sem hr) MUS 206
Diction (3 sem hr) MUS 207, 208, 209
Sacred Music (14 sem hrs) MUS 170, 171, 172, 283, 284
Electives (4 sem hrs) 1 four-hour elective in music
Techniques (2 sem hrs) MUS 243, 251
Private Lessons (12 sem hrs)** 8 semesters private study (total of eight sem hrs. of credit) in organ (MUS 387), and 4 semesters private study in piano (MUS 383)
Large Ensembles (6 sem hrs) 6 separate semesters’ participation in a Large Choral Ensemble
Capstone Recital (4 sem hrs) 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 273R (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  one at the end of each semester’s prescribed 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 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 271R, 272R, and 273R, 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:

- **Theory (20 sem hrs)**  MUS 121, 121L, 122, 122L, 123, 123L, 124, 124L, 125
- **History (8 sem hrs)**  MUS 141, 142
- **Private Lessons (8 sem hrs)**  8 semester hours in primary instrument or voice (odd course numbers)
- **Large Ensemble (8 sem hrs)** 8 separate semester’s participation in a Large Ensemble
- **Capstone Recital (4 sem hrs)** 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:

- **Theory (12 sem hrs)**  
  MUS 121, 121L, 122, 122L, 123, 123L
- **History (8 sem hrs)**  
  MUS 141, 142
- **Private Lessons (8 sem hrs)**  
  8 semester hours in primary instrument or voice (odd course numbers)
- **Large Ensemble (8 sem hrs)**  
  8 separate semesters’ participation in a Large Ensemble
- **Capstone Recital (4 sem hrs)**  
  MUS 601 Capstone Recital, or MUS 602 Capstone Lecture Recital

A student choosing a second major in music while majoring in elementary 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:

- **Theory (8 sem hrs)**  
  MUS 121, 121L, 122, 122L
- **History (4 sem hrs)**  
  Elect either MUS 101, 141 or 142
- **Private Lessons (4 sem hrs)**  
  4 semesters’ private study in primary instrument or voice (odd numbered lessons)
Large Ensemble (4 sem hrs) 4 separate semesters’ participation in a Large Ensemble
Music Electives (4 sem hrs)* 4 semester hours of credit in music

*A student may choose to take additional semesters’ private study (lessons) by paying the private lesson fee.

A student choosing to minor in music while majoring in elementary education must pass the piano proficiency examination.

Music minors do perform juries, for either odd- or even-numbered private lessons.

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.

301 Flute 327 Euphonium 367 Jazz Improvisation
303 Oboe 329 Tuba 379 Composition
305 Clarinet 341 Percussion 381 Voice
307 Bassoon 343 Violin 383 Piano
309 Saxophone 345 Viola 384 Harp
321 French Horn 347 Violoncello 387 Organ
323 Trumpet 349 Double Bass
325 Trombone 361 Guitar
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.

| 300 flute | 326 euphonium | 362 carillon |
| 302 oboe  | 328 tuba     | 366r jazz improvisation |
| 304 clarinet | 340 percussion | 368 composition |
| 306 bassoon | 342 violin | 380 voice |
| 308 saxophone | 344 viola | 382 piano |
| 320 french horn | 346 violoncello | 385 harp |
| 322 trumpet | 348 double bass | 386 organ |
| 324 trombone | 360 guitar |

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 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.

| 311 flute  | 335 trombone | 359 double bass |
| 313 oboe   | 337 euphonium | 371 guitar |
| 315 clarinet | 339 tuba | 373 carillon |
| 317 bassoon | 351 percussion | 391 voice |
| 319 saxophone | 353 violin | 393 piano |
| 331 french horn | 355 viola | 399 organ |
| 333 trumpet | 357 violoncello |
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.)

Neuroscience

Coordinators: Alan G. Gittis (Psychology), Katherine 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 credit hours of required and recommended courses. Required are BIO 201, 202, 303, 334 or 335/336, PSY 101, 201, 601, 602, and NS 341, 631, 632. Additionally students must make selections from the following courses (or approved alternatives):

- BIO: 302, 304, 363
- CHE: 117, 180, 261, 262, 381
- CS: 151, 152, 271
- MTH: 131, 150
- NS: 560
- 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. Program coordinator, Dr. Sherri Pataki.

**OPTIONS FOR STUDENTS IN THE PEACE STUDIES PROGRAM:**

Students may elect either a minor or a concentration in peace studies to enhance their major. A **minor** will include two specific courses: 1) PAX 101: Introduction to Peace Studies, and 2) PAX 301: Conflict Resolution Seminar. In addition, students wishing to earn a minor must take four electives from regular courses in many departments that have been approved by the peace studies director. A list of approved courses is given below. At least eight semester hours must be outside the student’s major. A concentration is similar to a minor except that only two electives are required.

Courses from which peace studies electives may be chosen:

- **ES 160:** Concepts of Environmental Science
- **HIS 136:** 20th Century Europe
- **HIS 152:** Modern Russia
- **HIS 172:** Latin America from 1825
- **HIS 182:** Africa Since 1800
- **HIS 223:** African-American History
- **HIS 301:** America in the Sixties
- **HIS 308:** Cold War
- **HIS 311:** South Africa
- **PS 235:** Politics and Society in Africa
- **PS 241:** Public Policy
- **PS 332:** United States Foreign Policy
- **PS 431:** International Organizations
- **PSY 213:** Psychology of Prejudice
- **PSY 321:** Social Psychology
- **PSY 331/GS 331:** Psychology of Women
- **REL 102:** Understanding the Christian Faith
- **REL 111:** Understanding Religious Experience and Expression
- **SOC 104:** Social Inequality
- **SOC 105:** Cultural Anthropology
- **SOC 107:** Sociology of Gender
- **SOC 209:** Majority-Minority Relations
- **SOC 215:** Women in Cross-Cultural Perspective
- **SOC 303/REL 221:** Religion and Society

Other courses may be taken for peace studies credit with the approval of the coordinator of the program.
Physical Education
(No major programs)

Professor: D. Scott Renninger
Associate Professors: Robert G. Klamut Jr., 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 over 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 introduce students to the many aspects of keeping “well.” Additionally, a swimming course is needed (or the passing of a swimming proficiency test administered by the aquatic department) with classes available in Level I (beginning or unable to swim), Level II, and Level III. Other class opportunities available are in water aerobics, and certification courses in Water Safety Instructorship, Lifeguarding, and Scuba.

The remaining two courses may be selected from a wide range of offerings including physical fitness weight training, power walking, bicycling, tennis, bowling, horseback riding, racquetball, volleyball, aerobics and jogging, pickleball, basketball, dance (jazz and folk), and ice skating, or participation for two semesters in an approved intercollegiate sport.

Students may earn credit in no more than four physical education courses, including wellness, but may enroll in as many courses as they are interested in learning or participating in.

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 Professor: Douglas N. Armstead
Instructor: Thomas E. Oberst
Chair, Dr. Caylor

Degree Offered: Bachelor of Science
Major Program: Physics
Interdisciplinary Program: Environmental Science
Minor Program: Physics
Teacher Certification: Physics, General Science

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 can participate in the 3-2 engineering program described in pre-professional programs, p. 78.
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: PHY 151, 152, 251, 252, 311, 312, 321, 322, 401, 403, 601, 602; four courses from MTH 150, 152, 250, 251, and 261; CHE 117, 180. Grades for the required courses in physics must be C- or better and a 2.000 average is required in all physics courses taken.

A student with a secondary education minor will substitute PHY 121 and 221 for PHY 401 and 403 as required physics courses.

A student who participates in the 3-2 engineering program will not be required to take PHY 401, 403, 601, 602, but must complete a B.S. in engineering degree at an approved school to satisfy the requirements for a major in physics at Westminster.

**The Minor in Physics:** A minor in physics consists of PHY 151, 152, 251, 311, 312, and one course from PHY 121, 221, 252, 401, or 403.

**Interdisciplinary Programs:** The environmental science program is offered through the departments of physics, biology, chemistry, and mathematics and computer science (see p. 103).

**Secondary Education Teacher Certification:** To be eligible for certification in physics students must successfully complete all requirements for the major with secondary education minor, as set out above, the requirements for graduation listed on p. 53, and successfully complete the minor in secondary education. Requirements for the minor are listed in the Department of Education, p. 98.

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 and Sociology

Professor: Phyllis G. Kitzerow
Associate Professors: Edward S. Cohen, Gary D. Lilly, Kristin Park, James C. Rhoads Jr., Shannon I. Smithey
Assistant Professors: Michael E. Aleprete Jr.
Visiting Assistant Professor: Danielle Ficco
Chair, Dr. Cohen

Degree Offered: Bachelor of Arts
Major Programs: Political Science, Sociology
Interdisciplinary Programs: International Politics, Intercultural Studies and Modern Languages
Sociology Concentrations: Criminal Justice, Social Policy
Minor Programs: Criminal Justice, Political Science, Sociology
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, 601
- One course in American Politics (PS 212, 213, 214, 215, 251, 252, 302, 303, 311, 411)
- One course in Political Theory or Public Policy (PS 221, 222, 241, 251, 253, 321, 322, 323, 324, 342)
- One course in International Politics or Comparative Politics (PS 232, 233, 235, 236, 254, 255, 331, 332, 431, 454, 455)
- At least three political science electives
In addition, all majors must take SSC 251 and SSC 252 or PS 301.

**The Minor in Political Science:**
- 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.

The following is a list of recommended courses for political science majors planning to attend 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
- SOC 202: Criminology
- 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. 76.

**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 Dr. Patrick Krantz, coordinator of secondary education in the Department of Education, as soon as possible for complete information on the requirements for certification.

**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, law enforcement, or other related areas.

**Major: All Sociology majors must complete 44 semester hours as follows:**
- SOC 101, 250, 601, 602 (or Honors equivalent)
- Five electives, with at least two courses designated 200-level or above and one course designated 300-level or above
- SSC 251, 252

**The Major in Sociology with a Criminal Justice concentration.** This concentration is for students interested in law, juvenile and adult corrections, law enforcement, correctional counseling and related areas. It is designed for those who are interested in a more applied approach to sociology and who have an interest in the area of criminal justice.

**All Sociology majors with a Criminal Justice concentration must complete:**
- SOC 101, 102, 201, 202, 250, 302, 601, 602 (or Honors equivalent)
- 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:**
- SOC 101, 108, 204, 250, 305; one of the following: 104, 201, 210, 327; 601, 602
- SSC 251 and 252
- PS 241
- ACC 201 and a business administration course (consult with adviser)
- Internship in the area of social policy

**The Minor in Sociology:** All sociology minors must complete 28 semester hours as follows:
- SOC 101 and 250
- Four electives, of which two must be at the 200 level or above
- SSC 251
- SOC 561–564 may not be included in the minor
The Minor in Criminal Justice: A minor in criminal justice shall consist of 28 semester hours in sociology as follows:
- SOC 101, 102, 201, 202, 302, and 250
- SSC 251

Interdisciplinary Program: The department participates with the Department of Modern Languages in offering the intercultural studies interdisciplinary major (see p. 105).

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 40 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 course as prerequisite, or instructor permission.

Students must earn at least a C- in SOC 250: 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.

Psychology

Professors: Alan G. Gittis, Mandy B. Medvin, Sandra K. Webster
Associate Professor: Kirk M. Lunnen
Assistant Professors: Jamie G. McMinn, Sherri P. Pataki
Chair, Dr. Gittis

Degree Offered: Bachelor of Arts
Major Program: Psychology
Interdisciplinary Majors: Psychology-Human Resources, Neuroscience
Minor Program: Psychology
Interdisciplinary Minor Program: Childhood Development
Joint Program: Psychology-Occupational Therapy

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),
- Research 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 (PSY 231 does not count as a psychology course),
- Internship (PSY 560)
- 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)

**Required Support Courses:**
- MTH 131 or MTH 150; 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. Students in the Honors Program register for Honors Research instead of Capstone and Advanced Research. Psychology majors must have at least a 3.500 average in psychology courses to be admitted to the Honors 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 or 351, 301, 621 and 622.
Recommended Psychology Electives: PSY 221, 271, 291, or 411, 422.
Other Recommended Courses: EDU 201, PSY 231, SOC 201.

Clinical/Counseling Psychology Track:
Recommended Major Requirement Options: PSY 281, 301, 637 and 638.
Recommended Psychology Electives: PSY 275, 401, 421, 341. Students interested in working with children should also take PSY 221/222, 411, 422; Students interested in working primarily with adults should also take PSY 291, 311.
Other Recommended Courses: SOC 102, PSY 231, SOC 201.

Social/Organizational Psychology Track:
Recommended Major Requirement Options: PSY 321, 351, 635 and 636.
Recommended Psychology Electives: PSY 212, 213, 241, 301 and 311.
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.

The Major in Psychology-Occupational Therapy: Upon completion of the B.A. degree requirements, students in this major are eligible for admission to the Master of Occupational Therapy program at Duquesne University.

Psychology Courses:
Introduction to General Psychology (PSY 101),
Research Methods and Analysis (PSY 201)
A minimum of one course from the following:
Childhood and Adolescence (PSY 221)
Adulthood and Aging (PSY 291)
A minimum of one course from the following:
Developmental Psychopathology (PSY 422)
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 341)
Four hours of internship experiences with Duquesne consultancy (PSY 560)
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)

Required Westminster Support Courses:
   BIO 201, 202, 335 and 336; MTH 131; PHI 240 (or equivalent); PHY 141

Required Duquesne Courses (These are proficiency courses offered through Duquesne and must be completed prior to completion of the B.A. degree. They do not earn Westminster credit.):
   Foundations/Fundamentals of Occupational Therapy
   Medical Terminology

The Minor in Psychology: A minor consists of Introduction to Psychology (PSY 101); Research Methods and Analysis (PSY 201); and four psychology electives, two of which must be numbered 300 or above. PSY 231 (Educational Psychology) does not count toward the minor.

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 below). Neuroscience is offered in conjunction primarily with biology (see p. 124).

Interdisciplinary Minor: Childhood development is offered in conjunction with the education department. Coordinators are Mandy B. Medvin (Psychology) and Linda Domanski (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 credit hours). The prescribed set of courses are: PSY 101, 221/222, 411, 422, 271 or 281, 231; SED 201 may be taken in place of PSY 411; EDU 203, 572; (student 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

A significant grasp of psychological principles coupled with a substantial orientation to generic business issues form a sound foundation to build a mature grasp of human resources in any organizational setting. The impact of technology and global interdependence is integrated into the program. This major will prepare students going on to graduate work in human resource management or organizational psychology programs, and is equally appropriate for new 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 selectively combined in order 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 are:

- **BA 140** American Workplace
- **PSY 101** Introduction
- **ECO 150** Economic Reasoning
- **PSY 201** Research Methods
- **ACC 201** Principles of Accounting
- **BA 360** Human Resources
- **PSY 241** Organizational
- **BA 361** Compensation/Benefit
- **PSY 301** Assessment
- **PSY 321** Social
- **PSY 351** Cognition
- **PSY 560 or BA 560** Internship in Human Resources
- **PSY 601** Psychology Capstone: Senior Studies I (2 semester hours)
- **PSY 602** Psychology Capstone: Senior Studies II, (2 semester hours)
- **PSY 635-640** Research Seminars (2-semester-hour courses taken simultaneously with 601 and 602)

All qualified students are encouraged to complete the senior studies requirement at the Honors level.

- **MTH** either 130 Precalculus and 131 Applied Calculus, or 150 Calculus I

One additional course from the following:

- **BA 362** Employment and Labor Law
- **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 (economics and business).
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: ACC 201 and 202; CS 151; BA/ECO 220 or MTH 335; MTH 152, 250, 261, 321, 341; ECO 150, 310, 320, 601, and two other 300 level economics courses. Students must earn a GPA of at least 2.000 in these courses with no grade lower than C-.

Religion, History, Philosophy, and Classics

Professor: A. Dwight Castro (Classics), Bryan S. Rennie (Religion), David C. Twining (History)
Associate Professors: Timothy Cuff (History), David W. Goldberg (Philosophy), Russell E. Martin (History)*, Kang-Yup Na (Religion)
Assistant Professors: Patricia G. Clark (History), Beverly W. Cushman (Christian Education, Religion)
Visiting Assistant Professor: Angela M. Lahr (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, 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/or minors, are described below, in the order in which the disciplines appear in the departmental name.
Religion (including Christian Education)

The purpose of Westminster College, a church-related institution, has been and continues to be the offering of a faith-informed liberal arts education. Given this heritage, the goals of the courses in religion are to enable students:

- to participate in the dialogue between and among people of faith;
- to understand the relationships between the religious and other dimensions of human existence;
- to develop and/or to deepen their own faith commitments;
- to act in just and compassionate ways.

An understanding of religion in its various forms has value for study of many other liberal arts areas. Students anticipating graduate study in theological seminary will find courses in religion and philosophy (as well as in the other component disciplines of the department) a sound foundation for theological studies on the graduate level. See further below.

Requirements for the Major in Christian Education: A major in Christian education requires 48 semester hours in courses in religion, distributed as follows:

- All of the following: 102, 106, 107, 111, 126, 301, 321, and 601*
  *Courses numbered 660 and higher (totaling at least 4 semester hours) may be substituted for 601.
- Two of the following: 201, 202, 207, 208, 209
- Two of the following: 226, 227, 228

Also recommended for students majoring in Christian education are additional courses from one or more of the following disciplines: art, Greek, philosophy, psychology, and sociology.

Some students who major in Christian education elect to double major in another discipline. Although a double major is possible with most disciplines, it is not possible to major in both Christian education and in the Christian Traditions Program of the religion major (see further below).

Students interested in youth or campus ministry are encouraged to consult with their adviser.

Requirements for the Minor in Christian Education: A minor in Christian education requires 24 semester hours in courses in religion, distributed as follows:

- Both of the following: 101 and 126
- Two of the following: 226, 227, 228
- Two of the following: 102, 111, 201, 202, 207, 209
Requirements for the Major in Religion: Within the religion major, there are two programs: the Christian Traditions Program and the History and Philosophy of Religion Program. A major in religion requires the number of semester hours specified below for each of these programs.

The Christian Traditions Program: 48 semester hours in religion courses, distributed as follows:

- All of the following: 102, 106, 107, 111, 301, and 601*
  *Courses numbered 660 and higher (totaling at least 4 semester hours) may be substituted 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 History and Philosophy of Religion Program: A minimum of 44 semester hours in religion courses, distributed as follows:

- All of the following: 111, 116, 117, 118, 311, and 601*
  *Courses numbered 660 and higher (totaling at least 4 semester hours) may be substituted for 601.
- One of the following: 101, 106, 107
- One of the following: 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
- Two religion electives (totaling 8 semester hours), at least one of which must be numbered 201 or higher.

Pre-Seminary Preparation: Students who plan to attend a seminary should take courses that are both broad in scope and also provide an appropriate foundation for seminary studies. Therefore, in addition to courses in religion, students who plan to attend a seminary should also take at least GR 101 and 102, and preferably also GR 201 and 251 (see below under Classics); as well as courses in one or more of the following disciplines: philosophy, history, literature, psychology, speech, sociology.

Honors in Religion or Christian Education: The department encourages eligible majors in religion or Christian education to pursue Honors Research. A general GPA of 3.500 and a major GPA of 3.500 are required for admittance to the Honors Program.
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*
  *Courses numbered 660 and higher (totaling at least 4 semester hours) may be substituted for 601.
- Two of the following (U.S. history): 105, 106, 202, 210, 221, 222, 223, 231*
  *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): 151, 152, 153, 161, 162, 171, 172, 181, 182
- One of the following (special topics seminar): Any course numbered 301-320
- One of the following (internship): 564 (4 semester hours)*; or 562 and 572 (2 semester hours each)*
  *For history majors seeking secondary education teacher certification, student teaching (EDU 452) will substitute for HIS 564 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:

- Ancient/Medieval (prior to 1300): 120, 121, 122, 123, 181
- Early Modern (1300-1789): 105, 124, 125, 131, 151, 171, 202

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): 121, 122, 123, 124, 125, 126, 131, 132, 136
• One of the following (U.S. history): 105, 106, 202, 210, 221, 222, 223, 231
• One of the following (non-western history): 151, 152, 153, 161, 162, 171, 172, 181, 182
• 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. 98).

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.

Honors in History: The department encourages eligible majors in history to pursue Honors Research. A general GPA of 3.500 and a major GPA of 3.500 are required for admittance to the Honors Program.

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*
  *Courses numbered 660 and higher (totaling at least 4 semester hours) may be substituted for 601.
• Two of the following: Any courses numbered 200-209
• Two of the following: Any courses numbered 210-229
• One of the following: Any course numbered 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 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 of the following: Any course numbered 200-209
- One of the following: Any course numbered 210-229
- One of the following: Any course numbered 230-259
- One or more philosophy electives (totaling at least 4 semester hours)

Students minoring in philosophy must take at least 101 or 102 before taking any course numbered 200 or higher, and at least three philosophy courses before taking a course numbered 400 or higher.

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.

**Honors in Philosophy:** The department encourages eligible majors in philosophy to pursue Honors Research. A general GPA of 3.500 and a major GPA of 3.500 are required for admittance into the Honors Program.

**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*
- *Courses numbered 660 and higher (totaling at least 4 semester hours) may be substituted 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, 564 (or 562 and 572), and 601. A required supporting course is HIS 122. Students must also complete all requirements for a minor in secondary education (see p. 98).

Honors in Latin: The department encourages eligible majors in Latin to pursue Honors Research. A general GPA of 3.500 and a major GPA of 3.500 are required for admittance to the Honors Program.
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 unless noted.
**ACC 201, 202 Principles of Accounting I and II.** 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.** Development and use of financial information for management purposes. Coverage includes cost determination, analysis and control, budgeting, decision making, and performance evaluation. Prerequisite: ACC 202. (Also listed as BA 300.)

**ACC 305, 306 Intermediate Accounting I and II.** 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 202 for ACC 305, and ACC 305 for ACC 306.

**ACC 310 Federal Income Taxation.** 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. Prerequisite: ACC 202.

**ACC 320 Corporation and Partnership Taxation.** 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 202.

**ACC 350 Advanced Accounting.** 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.** 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 560, 570, 580, 590 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.** 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, 630, 640, 650 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.** (See p. 59.)
ART 101 Basic Studio Art 2D. 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. Fall Semester. K. Koop.

ART 102 Foundation Drawing. 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. P. Cox.

ART 104 Beginning Oil Painting. 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. P. Cox.

ART 105 Art and Nature. 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. 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. K. Koop.

ART 107 Worlds of Art: Ideas and Images. 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. Fall Semester. Staff.

ART 108 Beyond the Fields. 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. Acrylics will be the primary medium. Students will work from a variety of source imagery including on location.

ART 109 Computer Graphic Art I. 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. Fall Semester. Staff.

ART 110 Development of World Art, Part 1: Prehistoric—Middle Ages. 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. Fall Semester. K. Koop.

ART 200 Basic Studio Art 3D. 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. Spring Semester. K. Koop.
ART 201 Waterbased Painting. A studio course in watercolors. 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. Spring Semester. P. Cox.

ART 202 Wheel-throwing Ceramics. 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. Fall and Spring semesters. K. Koop.

ART 205 Figure Drawing. A basic course in drawing from the model. Introduction to simple anatomy, the study of masterworks from the Renaissance through contemporary trends in figure drawing will be covered. Alternating semesters, Fall Semester. Staff.

ART 206 Mud Pie History: People and Pottery. An art history course featuring ceramics, a medium that has had an extremely long and varied history. Ceramic arts have revealed the heart and soul of cultures. This course will study the artistic use of clay as a fundamental expression of society. Students will explore the diverse history of technical and aesthetic developments from other cultures as they relate to developments in American ceramics. Spring Semester. K. Koop.

ART 207 Graphic Design Applications. 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. Staff.

ART 209 Computer Graphic Art II. 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. Fall Semester. Staff.

ART 210 Development of World Art Part II: Renaissance to Early Modern. 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. Alternating years, Spring Semester. Staff.

ART 211 Cluster Course—Who Am I: Search for Identity in Visual Arts (paired with ENG 105). Through unique activities of object making and storytelling, humanity seeks to understand themselves and their individual relationships to the environment and culture. This course will focus upon studio art to explore a variety of techniques, contexts and concepts of “the self.” Skill levels needed for this studio course can easily encompass beginning to advanced. This course will be linked closely to its sister course through shared readings and some shared projects. Students must be enrolled in both courses during the same semester. Spring Semester. P. Cox (ART) and D. Swerdlow (ENG).

ART 212 Cluster Course—Myths and Muds: Interpretations in Clay (paired with CLC 112). This portion of the cluster will introduce handbuilding ceramic techniques. The content of
the student clay sculptures will be interpretations from the myths, folk tales and legends studied in the literature section of this cluster. Students must be enrolled in both courses during the same semester. Fall Semester.

**ART 250 Digital Art Studio (formerly Pixel Painting).** 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.

**ART 302 Intermediate Painting.** Students will explore thematic and content-based projects. This course will be offered concurrently with other painting courses and is limited to four students per semester. Prerequisites: ART 201 or 104 and permission of instructor prior to registration. P. Cox.

**ART 303 Advanced Studio Studies I.** 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.

**ART 304 Advanced Studio Studies II.** 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.

**ART 306 Digital Photography.** 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 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. Spring Semester. P. Cox.

**ART 560, 570, 580, 590 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.

**ART 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. Fall Semester only.

**ART 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. Spring Semester.
ART 620, 630, 640, 650 Independent Studies. 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.

BA 140 The American Workplace. 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. 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. 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. Prerequisite: MTH 131 or equivalent or consent of instructor. (Also listed as ECO 220.)

BA 221 Business Research Methods. 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. Prerequisite: BA 220.

BA 230 Business Law. 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. 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. 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. Development and use of financial information for management purposes. Coverage includes cost determination, analysis and control, budgeting, decision making, and performance evaluation. Prerequisite: ACC 202. (Also listed as ACC 300.)

BA 305 Marketing. 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 (and consent of instructor) and ECO 150.
BA 310 Organizations and Management. 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. 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: BA/ECO 220, ACC 202.

BA 326 E-Commerce. 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. 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 and BA 220 (or equivalent). (Also listed as ECO 601.)

BA 350 Finance. 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 202, and BA/ECO 220 (or equivalent).

BA 360 Human Resources Management. 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.

BA 361 Compensation and Benefits. 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. 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. 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. 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. 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. Prerequisite: ACC 202. BA 350 is strongly recommended.

BA 385 Financial Economics. 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. 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. 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 560, 570, 580, 590 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. 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. 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, 630, 640, 650 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. (See p. 59.)

BC 102 Audio Production. Provides the student with the theoretical background and practical experience in the preparation of audio materials for radio, television and theatre using both analog and digital audio equipment. A lab and involvement at Titan Radio Digital 88.9 FM is required. (Also listed as THE 103.)

BC 111 Writing for Radio and Television. This class introduces students to the fundamental techniques of broadcast news writing, online writing, and continuity writing (commercials, promotional announcements, public service announcements). A lab is included which requires writing copy for Titan Radio News, www.titanradio.net, and the Westminster Cable Network.
**BC 112 Video Moviemaking.** This beginning level course will introduce students to the art of moviemaking using regular home-style camcorders. The class will shoot, edit, act in and produce a video script they write in the companion cluster course ENG 112. Access to your own camcorder is beneficial but not required. This course is only offered as part of a cluster.

**BC 120 Broadcast Practicum (1 SH).** Hands-on experience at the campus radio and cable television stations. Experiences may include radio on-air or news anchor shifts, television news anchoring or reporting, serving on television crews, news writing, news photography, video editing or similar approved activities. On-air radio or TV practicums require an audition. Other practicums require demonstration of adequate skills to complete the practicum activities. Students may not take a practicum while completing a course that requires lab work in the same area. Students must be involved at the stations a minimum of five hours per week. Weekend work at the radio and television stations is required. Students may only participate in the same activity a maximum of two semesters to insure a variety of broadcast practical experiences. Prerequisites: BC major or minor and departmental consent.

**BC 202, 203, 204 and 205 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.** 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.** 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.** 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.** 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 Television Field Production.** Studies the techniques for recording television news documentaries, and other programs outside the television studio. Planning and production using portable cameras, recorders, and audio/lighting systems are emphasized. Lab required. Prerequisites: BC 102, 111, and 251, or consent of instructor.

**BC 304 Programming and Promotion.** 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. 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. 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. Presents the knowledge and skills needed to broadcast football and basketball games on-air or behind the scenes and produce and announce daily radio or TV sportscasts. Students will gain hands-on experience broadcasting sporting events on the college radio and television facilities and will serve as talent or crew for Westminster Cable Network’s “Coaches’ Corner” and “The County Line.” (Weekend and evening work required.) Prerequisites: BC 102 and 251 or consent of instructor.

BC 311 Broadcast Journalism I. This class builds on the fundamentals of broadcast news from previous courses including practical, ethical and legal considerations for news gathering, writing, producing, reporting and anchoring on Titan Radio and www.titanradio.net. 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. Students polish techniques for professional on-air and online standards in reporting and producing local news for the local audience. Prerequisites: BC 102, BC 111 and BC 251.

BC 312 Broadcast Journalism II. 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.titanradio.net. Students polish and advance their writing, production and storytelling skills adhering to established, professional standards. Prerequisites: BC 102, BC 111 and BC 251.

BC 410, 411, 412 Broadcast Advanced Topics.

BC 560, 561, 562 Internships. 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, or cable or production facility. Prerequisites: extensive prior experience at campus broadcast facilities and approval of the department. S/U grading.

BC 601, 602 Broadcast Communications Capstone (2 SH). This course (two hours per semester) requires the student to prepare a broadcast résumé portfolio which includes a senior project of professional quality, for presentation in the Spring Semester to department majors, faculty, broadcast professionals, and the campus community. In addition, the class will explore a variety of advanced topics and discuss current broadcast issues. Prerequisites: senior status, completion of the departmental comprehensive exam, BC 102, BC 111, and BC 251.

BC 620, 630, 640, 650 Independent Study.

BIO 101 Concepts of Biology. A course for the non-science major. Emphasis is placed upon identifying and studying topics of a biological nature that are relevant to modern society. A laboratory is included. S. Mistry.

BIO 102 Understanding Evolution. This is a cluster course for the non-science major. Historical aspects of organic evolution are examined, from its inception to our current understanding of
this unifying theory of biology. The modern genetic theory of evolution as a continuing process is emphasized, as are the ways that evolution as a theory is testable by the scientific method. A laboratory is included. Students must also register for ENG 106. J. Balczon.

**BIO 103 Biology of Aging.** 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. Students must also register for SOC 301. Not open to biology and molecular biology majors. Prerequisite: none.

**BIO 105 Pattern and Process in the Natural World.** This is a cluster course for the non-major. In it, 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.** A course 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. Prerequisite: none.

**BIO 108 Human Genome Project.** Our world is increasingly influenced by scientific discoveries and applications of the Human Genome Project. The primary objectives of this course are to provide college students with a fundamental understanding of scientific technologies and concepts underlying the genetic research and to make students aware of the ethical, social, and legal implications of this extraordinary event. 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. Prerequisite: none.

**BIO 151 Biology of Sex.** A course for non-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. Prerequisite: none.

**BIO 201 Cell Biology and Genetics.** 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. This course will be offered in the fall of 2008 and be offered every subsequent Fall Semester. Prerequisite: none.

**BIO 202 Evolution, Form and Function.** 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
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. This course will be offered in the Spring Semester, starting in 2009. Prerequisite: completion of BIO 201.

BIO 203 Biodiversity and Ecology. 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.). This course will be offered in the Fall Semester, starting in 2009. Prerequisite: completion of BIO 202.

BIO 206 Biostatistics and Experimental Design. 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: successful completion of BIO 201.

BIO 301 Microbiology. 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. Offered Spring Semester. Prerequisite: C- or better in BIO 201. J. Balczon.

BIO 302 Cell and Molecular Biology. A study of molecular structure and function in Archaea, Eubacteria, and Eukarya. Topics include transport across cell membranes, cellular energy conversion, cell-to-cell signaling, cell movements, cell shapes, and cell-cell and cell-matrix interactions. A laboratory is included. Offered Spring Semester. Prerequisite: C- or better in BIO 201. J. Corrette-Bennett.

BIO 303 Molecular Genetics and Heredity. This course serves as a broad introduction to the structure and function of nucleic acids, basic processes that regulate expression of genetic information, and biological 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 Mendelian genetics, epigenetics, population genetics, developmental genetics, genetics of cancer, and molecular evolution. 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 study modes of inheritance. Required for the molecular biology major. Offered Fall Semester. Prerequisite: C- or better in BIO 201. J. Corrette-Bennett.

BIO 304 Developmental Biology. A study of the mechanisms of organism development from gametogenesis through maturity. 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. An introduction to the physiology of cells, plants, and animals. Major emphasis is placed on the functional interrelationships that exist within cells and organisms. A laboratory is included. Offered Fall Semester. Prerequisite: C- or better in BIO 202.
**BIO 335 Anatomy and Physiology I.** First of a two-course sequence studying the anatomical and physiological principles of the human body, 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 nervous, muscular, and digestive systems. A laboratory is included. Offered Fall Semester 2006 and alternate years. Prerequisite: C- or better in BIO 201. When taken together with BIO 336, this course fulfills one concentration requirement (in the area of physiology and cell biology) plus one elective for biology majors. J. Robertson.

**BIO 336 Anatomy and Physiology II.** Second of the two-course sequence studying the anatomical and physiological principles of the human body. Emphasis is placed on circulatory, respiratory, immune, reproductive, and endocrine systems. A laboratory is included. Offered Spring Semester 2007 and alternate years. Prerequisite: C- or better in BIO 335. J. Robertson.

**BIO 337 Comparative Vertebrate Anatomy.** A study of the phylogenetic history of the vertebrate 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. Offered Spring Semester 2006 and alternate years. Prerequisite: C- or better in BIO 202. J. Robertson.

**BIO 338 Evolution.** 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 fluctuations in numbers, genetic drift, polymorphism, isolation, and the origin of races and species. A laboratory is included with some field work. Offered Fall Semester 2005 and alternate years. Prerequisite: C- or better in BIO 203. J. Robertson.

**BIO 360 Ecology.** 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. Robertson. (Also listed as ES 360.)

**BIO 361 Biological Diversity.** 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. Offered Fall Semester. Prerequisite: C- or better in BIO 203. S. Mistry.

**BIO 363 Animal Behavior.** 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.

**BIO 401 Recombinant DNA and Biotechnology.** 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 will 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. Required for the molecular biology major. Offered Spring Semester. Prerequisite: C- or better in BIO 303. J. Corrette-Bennett.
**BIO 402 Biology of Infectious Disease.** This course investigates the causes, pathology, prevention and treatment of infectious diseases, as well as the mammalian immune response to infection. The course is in a lecture/discussion format with focus on case studies and readings from primary literature, as well as the laboratory investigation of infective agents. Some field work, including a possible field trip to a water treatment plant, is an important feature of the class. Prerequisite: C- or better in BIO 301 or 302 or 303.

**BIO 431 Electron Microscopy.** An introduction to the principles and procedures involved in transmission and scanning electron microscopy. In addition to learning to use the microscopes, each student will gain experience in related techniques, including fixation, embedding, sectioning, photography, critical point drying, and sputter coating. This is a laboratory oriented course. Offered Fall Semester 2006 and alternate years. Prerequisite: C- or better in BIO 202 or consent of instructor. J. Robertson.

**BIO 432 Animal Physiology.** A continuation of the topics in physiology. Detailed study of the physiology of growth and development in plants and the respiratory, cardiovascular, and endocrine systems of animals. Prerequisite: C- or better in 334 or 335 and 336.

**BIO 433 Behavioral Neuroscience.** An 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. A. Gittis. (Also listed as NS 341 and PSY 341.)

**BIO 461 Field Biology.** This course examines the local flora and fauna and is based upon field observation, natural history, and identification of local plants and animals. Extensive field work, including techniques for monitoring and assessment, will be a major focus of this course. Prerequisite: C- or better in 361 or 362.

**BIO 462 Plant-Animal Interactions.** This course investigates the numerous and intriguing relationships between plants and animals. Topics include pollination biology, seed dispersal, herbivory, ant-plant interactions and carnivorous plants. The class will be in a workshop format and focus extensively on readings from the primary literature, as well as designing and executing experiments. Field work will be an important component of the course, especially during the latter half of the semester. Prerequisite: C- or better in any course from the biodiversity and ecology concentration. S. Mistry.

**BIO 463 Marine Biology.** A detailed study of marine organisms and biological systems. The course deals with adaptations of these organisms from evolutionary, ecological, and physiological points of view. Energetics and chemistry of marine ecosystems are addressed. Theoretical investigations are made of traditional methods, such as habitat studies, and currently employed techniques, such as remote sensing. No formal laboratory is included. Offered Spring Semester 2007 and alternate years. A. Throckmorton.

**BIO 464 Fresh Water Biology.** 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. Offered Fall Semester 2006 and alternate years. Prerequisite: C- or better in BIO 360. A. Throckmorton.

**BIO 465 Introduction to GIS.** 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.** 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.

**BIO 560, 570, 580, 590 Field Experience/Internship.** A n 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, 630, 640, 650 Independent Study.** Prerequisite: department approval after submission of a prospectus.

**BIO 660, 670, 680, 690 Honors Research.** Prerequisites: Honors status and department approval after submission of a prospectus. (See p. 59.) A minimum GPA of 3.500 is required in the major courses to be considered for admission to the Honors Program.

**CHE 101 Our Chemical World.** A n 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. Elementary education majors may use this course to meet the physical science requirement.)

**CHE 111 Foundations of Chemistry.** 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.** 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: one year of high school chemistry and an acceptable score on a placement test or completion of CHE 111 with a grade of C- or better. Offered Fall and Spring semesters.

**CHE 180 Inorganic Chemistry.** 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. B. Kail, P. Smith.

**CHE 230 Chemical Analysis.** 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 150 (may be co-requisite). H. Boylan. (Also listed as ES 230.)

**CHE 261 Organic Chemistry I.** 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. Offered Fall Semester. Prerequisite: CHE 117. H. Boylan, B. Kail, T. Sherwood, P. Smith.

**CHE 262 Organic Chemistry II.** 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. Offered Spring Semester. Prerequisite: CHE 261. B. Kail, T. Sherwood.

**CHE 333 Physical Chemistry: Quantum and Kinetics.** A study of introductory quantum chemistry, chemical bonding, atomic and molecular spectroscopy, and time-dependant processes. Prerequisites: CHE 117, PHY 152, and MTH 152. Offered Fall Semester, alternate years. M. Joseph.

**CHE 334 Physical Chemistry: Thermodynamics.** A study of the macroscopic behavior of matter. Topics include the laws of thermodynamics, phase transitions, solutions, chemical reactions, and chemical equilibrium. Prerequisites: CHE 117, PHY 152 and MTH 152. Offered alternate years. M. Joseph.

**CHE 340 Instrumental Analysis.** 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. Offered Fall Semester, alternate years. Prerequisites: CHE 230 and PHY 142 or 152. 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. Offered Fall and Spring semesters, respectively. Prerequisites: CHE 180, CHE 230 and CHE 262.
CHE 375 Green Chemistry. 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 262. P. Smith.

CHE 381 Biochemistry. A study of carbohydrates, proteins, lipids, and nucleic acids in a biological context. Also included is an introduction to metabolism and energy transduction. The laboratory emphasizes techniques for separation, and analysis of biological molecules is included. Offered Fall Semester. Prerequisite: CHE 261. T. Sherwood.

CHE 382 Metabolic Biochemistry. 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. Offered Spring Semester. Prerequisite: CHE 381. T. Sherwood.

CHE 391 Advanced Inorganic Chemistry. 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. Offered Spring Semester, alternate years. Prerequisites: CHE 180, CHE 333. P. Smith.

CHE 481 Quantum Chemistry. A study of quantum mechanics and its application to chemical systems. Both exact and approximate methods are used to obtain such molecular properties as energy levels, various spectra, dipole moments, and chemical reactivity. Prerequisite: CHE 333.

CHE 485 Reaction Mechanisms. A study of organic reaction mechanisms including methods of their determination. Prerequisites: CHE 334 and CHE 262.

CHE 560, 570, 580, 590 Field Experience/Internship. Prerequisites: CHE 117 and departmental approval.

CHE 600 Senior Research (2 SH). An independent senior research 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. Offered Fall and Spring semesters, respectively. Prerequisite: senior standing.

CHE 610, 611 Advanced Topics. 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, 630, 640, 650 Independent Study. Prerequisites: CHE 117 and departmental approval.
CHE 660, 670, 680, 690 Honors Project. (See p. 59.) Prerequisites: honors status and departmental approval.

CLC 101-119 Studies in World Literature and Culture. 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. 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. 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. 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.

The following specific course in this sequence is currently available:

CLC 162 Greco-Roman Theatre. This course focuses on the essential characteristics of the ancient Greek and Roman theatre. We will begin by studying the physical structure of Greek and Roman theaters and how both tragedies and comedies were staged. We will then read (in English translation) and discuss selected plays (including both tragedy and comedy) by ancient Greek and Roman playwrights, and watch and critique performances of each of the works that are read. The course will culminate in a performance by the students of selected scenes from a Greek or Roman play.

COM 151 Voice and Diction. 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. 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. 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. This course offers students the opportunity to develop presentations in their field (business, public relations, education, etc.).

COM 205 Mass Communications. 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. 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.** 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 Communication on the Web.** 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 301 Electronic Communication.** This course is designed to explore how we use computers (and similar devices) to communicate interpersonally, in groups and in organization. The course explores the advantages to using such technology, as well as the challenges they present, and examines how not only individual relationships form, but how communities develop and grow on the Internet as well.

**COM 303 Sales Communication.** This course adapts sales and persuasion theories through practical sales exercises. Students make actual sales calls as part of class. Sales theories are then adapted 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 404 Organizational Communication.** This course is designed for the study of macro analysis of communication theory and skills in the organizational context. Topics include systems theory, management and leadership theories, organizational climate and culture, internal and external communications, power, superior-subordinate relations, mediation, gender roles, and organizational socialization. As part of the course, students are required to observe and report about communication in real organizations.

**COM 405 Political Communication.** 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.** 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 560, 570, 580, 590 Field Experiences/Internship.**

**COM 601, 602 Capstone.** The capstone courses require students to develop a project that explores a topic in communication studies. Students present their work to the campus community.

**COM 620, 630, 640, 650 Independent Study.**

**COM 660, 670, 680, 690 Honors Research.**

**CS 102 Introductory Programming.** 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.** An introduction to computer tools and techniques for the organization, processing, and presentation and communication of information. Topics include spreadsheets, design of World Wide Web pages, presentation management software, and graphics manipulation 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.** Topics in this second course in the IT 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. Prerequisite: CS 103 or permission of instructor.

**CS 151 Principles of Computer Science I.** 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.** 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, searching for information on the WWW, client-server relationships, and various forms of Web-based programming. The course considers Web site design, development and management, as well as HTML document design and construction. HTML topics will include basic and advanced syntax or tags used to create HTML documents. Some specific items will be the syntax for tables, and forms and script programming, 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.** 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. Organizational charts, questionnaires, interview techniques, data flow diagrams, cost estimating, CPM charts, Gantt Charts, Project Risk, Critical Success Factors, systems flow charts and problem resolution techniques are discussed in great detail. CASE tools will also be discussed.
CS 251 Data Structures. The fundamental data structures used in CS 152 will be studied and implemented as computer programs. Furthermore, this implementation will occur in a second programming language. Additional topics will include dynamic memory allocation and pointers. Co-requisite: MTH 241.

CS 252 The Internet. This course addresses the implementation, on Internet-networked workstations, of human communication structures. Topics to be studied include: an introduction to the TCP/IP protocol suite, an introduction to UNIX and programming tools, programming and network programming in PERL, strategies for software development by multi-disciplinary teams, case studies of Internet applications. This is a cluster course, therefore students must also register for The Internet: Psychology (PSY 251).

CS 271 Neural Networks: The Computing Perspective. A study of the structure, construction and capabilities of neural network computational devices, and their practical application to solving real-world problems. A major component of the course will be a student-designed neural network semester project. This is a cluster course, therefore students must also register for Neural Networks: The Biopsychological Perspective (PSY 261).

CS 310 Human-Computer Interaction. 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; interface design examples; dimensions of interface variability; dialogue genre; dialogue tools and techniques; user-centered design and task analysis; prototyping and the iterative design cycle; user interface implementation; prototyping tools and environments; I/O devices; basic computer graphics and sound. Prerequisite: CS 151 or CS 102.

CS 311 Computer Architecture. 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. The design and implementation of systems for managing large integrated collections of data. Database system architecture; the relational, hierarchical, and network 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. 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 graphs. Advanced sorting algorithms and recursive techniques are also studied, along with more advanced mathematical techniques for algorithm analysis. Other topics will include string matching, geometry algorithms and a brief introduction to the theory of computation. Prerequisite: CS 251.

CS 341 Artificial Intelligence. The fundamentals of artificial intelligence (AI), including problem solving techniques, search, heuristic methods, and knowledge representation. Prerequisite: CS 251.

CS 351 Software Engineering. 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 and CASE tools are discussed and a system project is completed. Prerequisite: CS 152 or permission of instructor.

CS 411 Language Design and Implementation. 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. 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 API’s, 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. This course combines two important topics which aid in the link between human and machine. The structure and design of systems programs such as editors, compilers, and disk utilities will be studied using C as the main programming language. Techniques for transmitting data between machines will also be emphasized, including local area networks, modem and satellite telecommunications and terminal interfacing. Independent student projects and field trips will be used to illustrate topics covered. Prerequisite: CS 152 or permission of instructor.

CS 441 Computer Graphics. 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 sample graphics software. Students need a solid foundation in mathematics, structured programming, and data structures. Prerequisite: CS 251.

CS 560, 570, 580, 590 Field Experience/Internship. 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). Students perform the literature review phase of 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. The student will select two faculty members, one of whom must be the thesis adviser, to serve as the thesis committee. The second committee member may be from any department; ordinarily this member will be from the Math/CS department. The student will write a thesis proposal that will be presented before the thesis committee at the end of the semester. Prerequisites: CS 151, 152, 251, plus two additional CS courses that count for the major.

CS 602 Computer Science Capstone II (2 SH). Students perform research related to producing a research thesis. This will culminate in the writing of a thesis which will be presented before the thesis committee, chosen during Capstone I, at the end of the semester. 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, 630, 640, 650 Independent Study.

CS 660, 670, 680, 690 Honors Project. (See p. 59.)

ECO 150 Economic Reasoning. Fundamental economic concepts and theories of supply and demand, resource allocation, market models, national income measurement, money creation, fiscal and monetary policy. An emphasis on the application of economics thinking for social policy and individual decision making will be recurrent throughout the course.

ECO 220 Statistics. An introductory course in the analysis and interpretation of quantitative data. Attention is given to the binomial distribution, the normal distribution, sampling, introductory
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probability theory, and hypothesis testing. Real world applications are used with computer software for statistical analysis. Prerequisite: MTH 131 (or may be taken concurrently) or equivalent or consent of instructor. (Also listed as BA 220.)

**ECO 270 Environmental and Natural Resource Economics.** 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.** 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, MTH 131 or equivalent, or consent of instructor.

**ECO 320 Intermediate Macroeconomic Theory.** 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, MTH 131 or equivalent, or consent of instructor.

**ECO 335 The Economics of Sports.** 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.** 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.** 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.** 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 380 Labor Economics.** Analysis and description of the U.S. labor force and labor markets. Economic theory of wage determination, effects of unions and institutional structures on wages, causes of and cures for unemployment. A brief history of American unionism and collective bargaining will be covered. Prerequisite: ECO 150.

**ECO 385 Financial Economics.** 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. (Also listed as BA 385.)
ECO 390 Economics of Health Care. 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 560, 570, 580, 590 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. 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), and BA/ECO 220 (or equivalent).

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, 630, 640, 650 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.

ECO 660, 670, 680, 690 Honors Project. (See p. 59.)

EDU 201 Foundations of Education. Examination of information from the fields of history, philosophy, and sociology which is relevant to the understanding of the teaching profession, development of school policy, and current educational issues. Economics strand included.

EDU 202 Inclusion (2 SH). An introduction to teaching students with disabilities in mainstream elementary education classrooms. The class provides students with opportunities to develop a knowledge base of the attitudinal issues regarding inclusive educational practices and a philosophical orientation toward effective inclusion support strategies. It seeks to increase interpersonal skills for working effectively with individuals and groups and technical skills in observing, planning, assessing, and evaluating for both behavioral and instructional challenges.

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. P. Krantz.

EDU 205 Classroom Management (2 SH). This course is designed to provide the elementary education major with classroom management theory and practical applications of the theory so they can be better prepared to deal with student disruptive behaviors by studying various forms of successful classroom management practices.
EDU 213 Religious Issues in Public Education. A consideration of current debates and continuing developments surrounding the place of religion in the public schools. Aspects covered are legal-constitutional problems, educational philosophy, values education, curricula and pedagogy, and administration and public relations. The course includes guest speakers, films, and field trips. (Also listed as REL 265.)

EDU 220 Teaching of Literature and Grammar in Secondary Schools. 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 301 Teaching of Mathematics in the Elementary School. This course is an introduction to the content and methods of teaching mathematics in grades pre-K through sixth grade which meet 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.

EDU 302 Language Arts and Children's Literature in the Elementary School. An introduction to the principles of instruction and assessment in the communication arts of listening, speaking, writing, reading, reviewing and visually representing. There is an emphasis on the phonics/spelling connection as well as the importance of handwriting and technology as communication tools. The effective utilization of the genres of children and young adult literature and their integration in all content areas is included. Practicum experience required. E. Morelli.

EDU 303 Teaching of Reading in the Elementary School. An introductory study of the various theories of literacy and literacy development. Students examine emergent and beginning readers and the role of phonics instruction. Systematic literacy evaluation tools for proficient and struggling readers are explored. Emphasis is placed upon comprehension and vocabulary strategies and the importance of technology within the literacy learning classroom. The role of home-school literacy partnerships is also examined. Practicum experience required. C. Endrizzi.

EDU 304 Teaching of Social Studies in the Elementary School. An introduction to content, methods, and curriculum of social studies in the elementary school. Preparing and organizing material from the various social science disciplines into a teaching unit is an integral part of the course. Emphasis is placed upon knowledge, skills, attitudes, and values as the basis for long-range goals in a social studies program. Students have the opportunity to examine and review materials currently used in elementary schools and to participate in the activities and experiences that are a part of the Elementary Block. Economics strand included. Practicum experience required. A. Camardese.

EDU 311 Teaching Science in the Elementary School. Introduction to the content and methods of science in the elementary school. 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 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. P. K rantz. For elementary education majors.
EDU 351 Reading in the Content Areas. 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.

EDU 451 Teaching in the Secondary School. 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. J. Hoellein. Graded S/U.

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 Field Experience—Elementary Education (2 SH). An off-campus experience in an elementary school intended to provide the student with opportunities to participate with teachers and children in K-6 classrooms. For elementary education majors. Prerequisites for first field experience: completed at least one semester and one education course at Westminster College and have at least 2.500 GPA. 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 601 Education Capstone: Student Teaching and Seminar-Elementary (16 SH). A supervised student teaching experience open to elementary education majors who have completed the pattern of required courses. Students are required to participate in related seminars. In addition to the regular tuition and fees, there is a student teaching fee.

EDU 610, 611 Advanced Topics.

EDU 620, 630, 640, 650 Independent Study.

EDU 660, 670, 680, 690 Honors Project. (See p. 59.)

ENG 101–151 Studies in Literature. 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 201 English Grammar. A study of contemporary approaches to grammatical terminology and analysis, designed primarily for prospective elementary and secondary teachers.

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.** 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.** 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.** 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 401-451 Seminars.** 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 560, 570, 580, 590 Field Experience/Internship.** 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.** 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. 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, 630, 640, 650 Independent Study.

ENG 660, 670, 680, 690 Honors Project. (See p. 59.)

ENV 101 Environmental Literacy. 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. 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.

ES 160 Concepts of Environmental Science. 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. 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 150 (may be co-requisite). H. Boylan. (Also
listed as CHE 230.)

ES 250 Risk Assessment. 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. 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. (Also listed as BIO 360.)

**ES 465 Introduction to GIS.** 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 560, 570, 580, 590 Internship.** Prerequisites: ES 160 and consent of the Environmental Science Committee for proposed internship.

**ES 601, 602 Environmental Science Capstone: Problem Analyses in Environmental Science.** 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, 630, 640, 650 Independent Study.** 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.** (See p. 59. Additional requirements and due dates should be obtained from the environmental science chair. Four additional semester hours of research may count as an elective.)

**FR 101 Elementary French I.** 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.** A continuation of the skills and emphases stated for FR 101. Prerequisite: FR 101 or at least one year of high school French.

**FR 201 Intermediate French I.** 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 at least two years of high school French.

**FR 202 Intermediate French II.** A continuation of the skills and emphases stated for FR 201. Prerequisite: FR 201 or at least three years of high school French.

**FR 301 Advanced Conversation and Composition I.** 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 at least four years of high school French.

**FR 302 Advanced Conversation and Composition II.** A continuation of the skills and emphases stated for FR 301. Prerequisite: FR 301 or permission of instructor.
FR 303 Commercial French. 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. 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. 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. 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. 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. 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 560, 570, 580, 590 Field Experience/Internship. Prerequisite: FR 301 or consent of instructor.

FR 601 French Capstone. 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, 630, 640, 650 Independent Study. 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. (See p. 59.)

FS 101 Introduction to Film Studies. 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. 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. 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. 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. (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 404 Film Criticism. This course teaches the basic concepts and critical approaches involved in interpreting film. Some of the approaches include humanism, auteurism, genre, social science, historicism, semiotics, 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. 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 560, 570, 580, 590 Field Experience/Internship.

FS 620, 630, 640, 650 Independent Study.
GEL 110 Geology of the Environment. 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. 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.

GEO 101 World Geography. 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.

GER 201 Intermediate German I. 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.

GR 101 Fundamentals of Ancient Greek I. 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. A continuation of the skills and emphases stated for GR 101. Prerequisite: GR 101 or equivalent.

GR 201 Fundamentals of Ancient Greek III. 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. 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 560, 570, 580, 590 Field Experience/Internship. Prerequisites: GR 201 and consent of the instructor and department chair.

GR 620, 630, 640, 650 Independent Study. 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.

HIS 101 History of Civilization to 1715. A study of the development of civilization with emphasis on ancient, medieval, and early modern societies. The course includes political, economic, sociocultural, and religious perspectives on major historical personalities and events.

HIS 102 History of Civilization from 1715. 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. 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. 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 120 Early Christianity: Christ and Caesar. 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.

HIS 121 Ancient Greece. A study of the political and cultural history of ancient Greece to the end of the Hellenistic age.

HIS 122 Rome. 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 123 The Middle Ages, 300-1300. 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 124 Renaissance and Reformation, 1300-1600. 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 125 The Nation-State, 1600-1815. 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 126 19th Century Europe. A study of the political, social, economic, and diplomatic background of Europe from the Napoleonic Era to the close of the century.

HIS 129 History of Women in Modern Europe. 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 131 England: The Age of Elizabeth I. A study of the transition from medieval to modern forms of political and economic life from circa 1485-1714.

HIS 132 England: The Age of Empire. 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 136 20th Century Europe. A study of the political, economic, and cultural development of Europe from the opening of the century to the present.
HIS 151 Medieval and Early Modern Russia. A study of the political, economic, and cultural development of Russia from the earliest times to 1860.

HIS 152 Modern Russia. 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 153 The Baptism of Rus: A History of Religion in Russia. 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 161 China. 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 162 Japan. 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 171 Latin America to 1825. 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 172 Latin America from 1825. 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 181 Africa to 1800. 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 182 Africa since 1800. 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 202 Native American Culture and the Frontier Experience. 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. 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. 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.** 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.** 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.** 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.** 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 was for Americans.

**HIS 231 History of U.S. Foreign Relations.** 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 301-399 Explorations in History.** 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.** 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.** 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 560, 570, 580, 590 Field Experience/Internship.** Prerequisite: consent of the instructor and the department chair.

**HIS 601 History Capstone.** Research in selected topics. This course is required of senior history majors who are not doing an Honors Project. Prerequisite: C- or better in HIS 420.

**HIS 620, 630, 640, 650 Independent Study.** 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 Honors Project.** (See p. 59.)

**HON 301 Honors Colloquium.** The colloquium participants discuss the philosophies, basic assumptions, methodologies, and values in liberal arts disciplines. Readings in the natural sciences, social sciences, humanities and fine arts provide a common basis for discussion.

**HON 660-690 Honors Project.** 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.

**IC 101 The World of Language.** 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.** 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. 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 United States. 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.

INQ 111 Introduction to a Liberal Arts Education. This course introduces Westminster students to the philosophy and practice of a liberal arts education. Consistent with the College mission, students investigate and exchange ideas within a learning community open to their faith heritage and responsive to current social and intellectual concerns. 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.

LAN 101, 102 Elementary (name of specific language) I, II. Introductory-level courses in a language not regularly taught in the curriculum (parallel to the courses in French and Spanish numbered 101 and 102).

LAT 101 Fundamentals of Latin I. 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. 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. 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. 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. 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. 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 inscriptive) that illustrate various aspects of Roman civilization. Prerequisite: LAT 201 or equivalent.

LAT 401 Pre-Augustan Literature I. 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. 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. 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. The reading of selections from Livy and Vergil (the Aeneid). Prerequisite: LAT 201 or equivalent.

LAT 405 Post-Augustan Literature I. 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. 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 560, 570, 580, 590 Field Experience/Internship. Prerequisites: at least one Latin course numbered 202 or higher and consent of the instructor and the department chair.

LAT 601 Latin Capstone. This course is required of senior Latin majors who are not doing an Honors Project in Latin.

LAT 620, 630, 640, 650 Independent Study. 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 Honors Project. (See p. 59.)

LAW 560 Law Internship. This course has the following prerequisites: sophomore standing, a 2.500 GPA, and approval of Law PAC. See the pre-law adviser (Dr. Edward S. Cohen) for further information.

MTH 110 Mathematical Perspectives. 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. Topics include number theory and sequences. Prerequisite: a C- or higher in MTH 110, 121 or 131 or appropriate advanced credit.

MTH 130 Precalculus. 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, trigonometry, systems of equations, functions, and their graphs. Open only to students who plan to enroll in MTH 131 or MTH 150; students who have successfully completed any other college level mathematics courses are not allowed to enroll in this course. A placement examination is required.

MTH 131 Principles of Calculus. A one-semester study of differential and integral calculus with emphasis on polynomials, trigonometric functions, exponential functions, and logarithmic
functions. This course is for individuals with a good high school background in mathematics, including algebra and trigonometry, but little or no calculus. A placement examination is required.

**MTH 135 Concepts of Statistics.** 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.** This course will focus on the fundamentals of differential calculus. Topics considered include functions, limits, continuous functions, differentiation and integration of functions of one real variable, applications of differentiation, and the Fundamental Theorem of Calculus. Students will be introduced to some basic calculus proofs. A placement examination is required.

**MTH 152 Calculus II.** 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 or placement through the placement exam.

**MTH 241 Discrete Analysis.** 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 placement through the placement exam.

**MTH 250 Multivariable Calculus.** An introduction to the calculus of several variables. Topics include vector geometry, cylindrical and spherical coordinates, vector-valued functions, partial derivatives, multiple integrals, and vector calculus. Prerequisite: MTH 152 or placement through the placement exam.

**MTH 253 Differential Equations.** The study of differential equations and their applications in the natural sciences. Topics include linear differential equations, series solutions, Laplace transformations, systems of equations, an introduction to partial differential equations, boundary value problems and application of differential equations. Prerequisite: MTH 250.

**MTH 261 Linear Algebra.** 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.** An introduction to the mathematics of basic probability theory. Topics include general probability concepts, random variables, and discrete and continuous probability distributions. (2 credits) Prerequisite: MTH 241, 250.

**MTH 310 The History of Mathematics.** This course is designed to provide a broad overview of the history of mathematics. It will focus on the central theme of the development of calculus. It will cover the development of algebra, geometry, and trigonometry. As this course is intended for prospective secondary school teachers, most of the mathematics taught in high schools will be discussed. Prerequisite: MTH 250.

**MTH 320 Number Theory.** Number Theory is the study of the most basic of mathematical systems, the natural numbers \( \{1, 2, 3, \ldots\} \) and the integers \( \{0, 1, -1, 2, -2, \ldots\} \). The subject is famous for having a number of easy-to-state conjectures that have resisted all efforts at proof, in some cases for centuries, as well as an abundance of beautiful theorems. Topics for this course include the integers, divisibility, prime numbers, primality testing, factorization methods, congruences, Diophantine problems, arithmetical functions, Fermat’s little theorem, primitive roots, quadratic reciprocity, Diophantine equations, and Fermat’s last theorem. Applications will be drawn from Cryptology and Coding theory. Prerequisite: MTH 250.
MTH 321 Numerical Analysis. 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. An examination of the axiomatic foundations of Euclidean geometry, orthogonal circles and inversion. Non-Euclidean geometry and some of its consequences are also studied. Prerequisites: MTH 261, EDU 201, PSY 231.

MTH 335 Statistics. 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 250.

MTH 341 Operations Research. An introduction to the major mathematical methods of operations research. Included are linear programs and methods of solutions, decisions analysis, queuing theory, inventory theory, and an introduction to simulation. Prerequisites: MTH 250 and MTH 261.

MTH 361 Abstract Algebra. A study of algebraic structures with an emphasis on groups and the construction of proofs. Prerequisite: MTH 261.

MTH 431 Teaching Mathematics in the Secondary School (2 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 250, EDU 201, PSY 231.

MTH 451 Mathematical Analysis. Topics include set theory, the real number system, limits, continuous functions, differentiation, Riemann integration, sequences, and series. Prerequisite: MTH 361.


MTH 560, 570, 580, 590. Field Experience/Internship. Prerequisites: MTH 261, junior or senior standing and consent of department.

MTH 601 Mathematics Capstone. 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 Advanced Topics. 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, 630, 640, 650 Independent Study.

MTH 660, 670, 680, 690 Honors Research. (See p. 59.)

MUS 101 Introduction to Western Music. 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. Prerequisite: none. Credit: 4 semester hours.
MUS 102 Introduction to Ethnomusicology. 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. Prerequisite: none. Credit: 4 semester hours.

MUS 103 Introduction to Classic Jazz. 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. Prerequisite: none. Credit: 4 semester hours.

MUS 104 Introduction to American Music. 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. Prerequisite: none. Credit: 4 semester hours.

MUS 105 Introduction to Opera. 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. Prerequisite: none. Credit: 4 semester hours.

MUS 108 Introduction to Musical Theatre. An historical study of the development of musical theatre from its origins in opera and operetta to today. Prerequisite: none. Credit: 4 semester hours.

MUS 121 Theory 1. A study of the fundamentals of music and basic principles employed in the music of the Period of Common Practice. In addition, a progressive program for developing aural, sight reading, and keyboard skills is initiated, which will be continued through MUS 122, 123, and 124. This course is a prerequisite to all other theory courses and may be waived only upon satisfactory passing of a written and aural test as well as approval of the instructor. Supportive skills are cultivated. Prerequisite: none. Co-requisite: must also register for MUS 121L. Credit: 4 semester hours. Note: A letter grade of at least C- must be attained in MUS 121 in order to count for graduation as a music major.

MUS 121L Lab for MUS 121. Prerequisite: none. Co-requisite: must also register for MUS 121. Credit: 0 semester hours; the grade for MUS 121L will be incorporated into the grade for MUS 121.

MUS 122 Theory 2. A continuation of MUS 121 with emphasis on diatonic harmony, figured bass practice, and part form structures. Also included is an introduction to scale and rhythm patterns of the music of African and Middle Eastern cultures. Prerequisite: MUS 121 with a minimum grade of C-, or permission of instructor. Co-requisite: must also register for MUS 122L. Credit: 4 semester hours. Note: A letter grade of at least C- must be attained in MUS 122 in order to count for graduation as a music major.

MUS 122L Lab for MUS 122. Supportive aural and sight reading skills are cultivated. Prerequisite: none. Co-requisite: must also register for MUS 122. Credit: 0 semester hours; the grade for MUS 122L will be incorporated into the grade for MUS 122.

MUS 123 Theory 3. A continuation of MUS 122 with an introduction to species counterpoint and emphasis on chromatic harmony of the 18th and 19th centuries. Prerequisite: MUS 122 with a minimum grade of C-, or permission of instructor. Co-requisite: must also register for MUS 123L. Credit: 4 semester hours. Note: A letter grade of at least C- must be attained in MUS 123 in order to count for graduation as a music major.
**MUS 123L Lab** for MUS 123. Supportive skills are cultivated. Prerequisite: none. Co-requisite: must also register for MUS 123. Credit: 0 semester hours; the grade for MUS 123L will be incorporated into the grade for MUS 123.

**MUS 124 Theory 4.** A continuation of MUS 123 with emphasis on late Romantic, Impressionist, and 20th century practices. Also included is a brief study of performance practices of the music of Far Eastern cultures. Prerequisite: MUS 123 with a minimum grade of C-, or permission of instructor. Co-requisite: must also register for MUS 124L. Credit: 4 semester hours. Note: A letter grade of at least C- must be attained in MUS 124 in order to count for graduation as a music major.

**MUS 124L Lab** for MUS 124. Supportive skills are cultivated. Prerequisite: none. Co-requisite: must also register for MUS 124. Credit: 0 semester hours; the grade for MUS 124L will be incorporated into the grade for MUS 124.

**MUS 125 Form & Analysis.** A course which develops techniques in analysis of representative repertoire from all periods of music. Attention is given to the structural form as well as stylistic idioms of compositions. Prerequisite: MUS 124, or permission of instructor. Credit: 4 semester hours. Note: A letter grade of at least C- must be attained in MUS 125 in order to count for graduation as a performance or sacred music major (under the B.M. degree) or as a music major (single or primary, under the B.A. degree).

**MUS 126 Orchestration.** 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. Credit: 4 semester hours. 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 16th Century Counterpoint.** Sixteenth century contrapuntal style including introduction of species technique; analysis of liturgical and secular repertoire; writing of imitative counterpoint with stylistic rhythms and cadences. Listening and performance of selected examples. Prerequisite: MUS 124, or permission of instructor. Credit: 4 semester hours.

**MUS 128 18th Century Counterpoint.** This course introduces the elements of 18th century counterpoint through a variety of J.S. Bach keyboard literature. It encompasses first through fifth species counterpoint, contrapuntal composition devices, the canon, invention, and fugue. Prerequisite: MUS 124, or permission of instructor. Credit: 4 semester hours.

**MUS 129 Seminar in Music Theory.** Topics to be determined. Prerequisite: permission of instructor. Credit: 4 semester hours.

**MUS 141 History of Western Music to 1750.** 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: junior standing in music, or permission of instructor. Credit: 4 semester hours. 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.** A continuation of MUS 141. A 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: junior standing in music, or permission of instructor. Credit: 4 semester hours. 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 148 Music in the 20th Century.** History of music and musicians of the 20th century. Prerequisite: MUS 142, or permission of instructor. Credit: 4 semester hours.

**MUS 149 Seminar in Music History.** Topics to be determined. Prerequisite: permission of instructor. Credit: 4 semester hours.

**MUS 160 String Literature.** A chronological survey of music for strings, from the Renaissance through the 20th century. Prerequisite: permission of the instructor. Credit: 4 semester hours.

**MUS 161 Piano Literature.** A chronological survey of music for piano and harpsichord, from the Renaissance through the 20th century. Prerequisite: permission of the instructor. Credit: 4 semester hours.

**MUS 162 Organ Literature.** 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. Credit: 4 semester hours.

**MUS 163 Vocal Literature.** 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. Credit: 4 semester hours.

**MUS 164 Choral Literature.** 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. Credit: 4 semester hours.

**MUS 165 Opera Literature.** 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. Credit: 4 semester hours.

**MUS 166 Chamber Music Literature.** 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. Credit: 4 semester hours.

**MUS 167 Symphonic Literature.** A chronological survey of symphonic music, from the pre-Classical period through the 20th century with emphasis on both the aural and analytical understanding of this repertoire. Prerequisite: MUS 142, or permission of instructor. Credit: 4 semester hours.

**MUS 168 Band Literature.** 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. Credit: 4 semester hours.

**MUS 169 Music Literature: Seminar.** Topics to be determined. Prerequisite: permission of instructor. Credit: 4 semester hours.

**MUS 170 Church Music for Youth.** 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. Groups of students will form teams for at least two presentations during class time. Prerequisite: sophomore standing in music, or permission of instructor. Credit: 4 semester hours.
MUS 171 Church Music Administration & Materials. Studies which deal with the administration, organization, and maintenance of a church music program. Choral repertory for adult choirs is stressed. Prerequisite: sophomore standing in music, or permission of instructor. Credit: 4 semester hours.

MUS 172 Worship & Hymnology. 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. Credit: 4 semester hours.

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. Topics to be determined. Prerequisite: permission of instructor. Credit: 4 semester hours.

MUS 180 Musical Performance Techniques for the Elementary School Teacher. Learning about music through the performance of various techniques as they relate to elementary school teaching. Students will experience fundamental music concepts through singing, playing instruments (including keyboard lab), moving, active listening, and creating music. Students will practice activities as preparation for their roles as elementary classroom teachers, learning about music as a subject, but also as an aid in teaching non-music areas of the elementary curriculum. Satisfies IP credit in Visual and Performing Arts. Prerequisite: none. Credit: 4 semester hours.

MUS 181 Fundamentals of Education in Music. This course develops core skills necessary for further study of the methods and materials unique to instrumental, choral, and general music education. It provides an introduction to the teaching and learning process for students preparing to teach children, an overview of the music education profession, sociological and psychological principles which influence the development of musical skills, understandings and values, and pedagogical approaches, principles and strategies appropriate to a variety of music teaching and learning situations. Prerequisite: sophomore standing in music, or permission of instructor. Credit: 4 semester hours. Note: A letter grade of at least B- must be attained in MUS 181 in order to count for graduation as a music education major.

MUS 182 General Music Methods. 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. Credit: 4 semester hours. 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. 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. Credit: 4 semester hours. Note: A letter grade of at least B- must be attained in MUS 183 in order to count for graduation as a music education major.

MUS 184 Instrumental Methods. 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. Credit: 4 semester hours. Note: A letter grade of at least B must be attained in MUS 184 in order to count for graduation as a music education major.

**MUS 189 Seminar in Music Education.** Topics to be determined. Prerequisite: permission of instructor. Credit: 4 semester hours.

**MUS 195 Student Teaching: Elementary.** 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. Prerequisites: see “Eligibility Requirements for Admission into Student Teaching” found on page 114. Credit: 8 semester hours. 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.** 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. Prerequisites: see “Eligibility Requirements for Admission into Student Teaching” found on page 114. Credit: 8 semester hours. 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.** 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. Prerequisite: none. Co-requisite: must also register for MUS 600L. Credit: 1 semester hour. Note: A letter grade of at least B must be attained in MUS 200 in order to count for graduation as a music education major.

**MUS 201 Woodwind Pedagogy II.** 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. Credit: 1 semester hour. Note: A letter grade of at least B must be attained in MUS 201 in order to count for graduation as a music education major.

**MUS 202 Brass Pedagogy.** 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. Prerequisite: none. Co-requisite: must also register for MUS 600L. Credit: 1 semester hour. Note: A letter grade of at least B must be attained in MUS 202 in order to count for graduation as a music education major.

**MUS 203 Percussion Pedagogy.** 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. Prerequisite: none. Co-requisite: must also register for MUS 600L. Credit: 1 semester hour. Note: A letter grade of at least B must be attained in MUS 203 in order to count for graduation as a music education major.
**MUS 204 String Pedagogy I.** Two hours of class instruction per week on string instruments (violin, viola, cello, and bass - students will learn to play two of the four) 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. Prerequisite: none. Co-requisite: must also register for MUS 600L. Credit: 1 semester hour. Note: A letter grade of at least B - must be attained in MUS 204 in order to count for graduation as a music education major.

**MUS 205 String Pedagogy II.** A continuation of MUS 204, with students learning to play the two string instruments they did not play in MUS 204 and 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. Credit: 1 semester hour. Note: A letter grade of at least B - must be attained in MUS 205 in order to count for graduation as a music education major.

**MUS 206 Vocal Pedagogy.** 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. Prerequisite: none. Credit: 1 semester hour. Note: A letter grade of B - must be attained in MUS 206R in order to count for graduation as a music education major.

**MUS 207 Latin and Italian Diction.** A study of the fundamentals of pronunciation and articulation of Latin and Italian vocal and dramatic literature, for singers. Prerequisite: none. Credit: 1 semester hour.

**MUS 208 German Diction.** A study of the fundamentals of pronunciation and articulation of German vocal and dramatic literature, for singers. Prerequisite: none. Credit: 1 semester hour.

**MUS 209 French Diction.** A study of the fundamentals of pronunciation and articulation of French vocal and dramatic literature, for singers. Prerequisite: none. Credit: 1 semester hour.

**MUS 210 Piano Pedagogy.** 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. Credit: 1 semester hour. May be repeated.

**MUS 211 Organ Pedagogy.** A study of the specific principles of teaching organ and its literature. Prerequisite: permission of instructor. Credit: 1 semester hour.

**MUS 212 Woodwind Instrument Repair.** 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. Prerequisite: none. Credit: 1 semester hour.

**MUS 213 Brass Instrument Repair.** 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. Prerequisite: none. Credit: 1 semester hour.

**MUS 215 Keyboard Improvisation.** 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. Credit: 1 semester hour.
MUS 242 Functional Piano Class. Designed to prepare students to take the piano proficiency exam. This is a remedial and introductory course in piano technique for non-piano majors. Prerequisite: none. Credit: 1 semester hour; may be repeated innumerable times, but will not count towards graduation.

MUS 243 Keyboard Harmony. A dvanced study of traditional harmonic practices as applied to the keyboard; melodic harmonization, realization of figured bass, transposition, improvisation, etc. Offered when need arises. Prerequisites: completion of piano proficiency examination and MUS 123, or permission of the instructor. Credit: 1 semester hour.

MUS 244 Vocal Accompanying & Coaching. A study of interpretations and techniques involved in accompanying and coaching soloists and chamber ensembles, with vocal emphasis. Offered when need arises. Prerequisites: keyboard facility and permission of the instructor. Credit: 1 semester hour; may be repeated for credit.

MUS 245 Instrumental Accompanying. A study of interpretations and techniques involved in accompanying and coaching soloists and chamber ensembles, with instrumental emphasis. Offered when need arises. Prerequisites: keyboard facility and permission of the instructor. Credit: 1 semester hour; may be repeated for credit.

MUS 251 Service Playing. 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. Offered when need arises. Prerequisite: permission of the instructor. Credit: 1 semester hour.

MUS 261 Music Technology. 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. Credit: 1 semester hour.

MUS 271 Basic Conducting. 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. Credit: 1 semester hour. 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. 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-. Credit: 1 semester hour. 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. 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. Credit: 1 semester hour. 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. 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. Credit: 1 semester hour.
**MUS 283 Church Choir Development.** 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. Prerequisite: none. Credit: 1 semester hour.

**MUS 284 Anthem Teaching/Accompanying.** 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. Offered when need arises. Prerequisite: MUS 123, or permission of the instructor. Credit: 1 semester hour; may be repeated for credit.

**MUS 300-395 Private Lessons.** (See p. 122.)

**MUS 397 Junior Recital.** 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. Credit: 2 semester hours; will count towards graduation for music performance majors only.

**MUS 401 Band (Symphonic/Marching).** 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. Credit: 1 semester hour.

**MUS 401V Band.** 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.** 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. Credit: 1 semester hour.

**MUS 403 Flute Choir.** 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. Credit: 1 semester hour.

**MUS 404 Woodwind Ensemble.** 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. Credit: 1 semester hour.

**MUS 405 Brass Ensemble.** 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. Credit: 1 semester hour.

**MUS 406 Percussion Ensemble.** 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. Credit: 1 semester hour.
MUS 407 Wind Ensemble. 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. Credit: 1 semester hour.

MUS 421 Concert Choir. 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. Credit: 1 semester hour.

MUS 421V Concert Choir. 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. 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. Credit: 1 semester hour.

MUS 423 Men’s Chorus. 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. Credit: 1 semester hour.

MUS 423V Men’s Chorus. Same as 423, except that students earn Intellectual Perspectives (IP) credit in Visual & Performing Arts after 4 semesters of 423V. Students may accumulate 4 semester hours from the following courses, MUS 421V, MUS 423V and MUS 424V to meet the VP requirement.

MUS 424 Women’s Chorus. 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. Credit: 1 semester hour.

MUS 424V Women’s Chorus. Same as 424, except that students earn Intellectual Perspectives (IP) credit in Visual & Performing Arts after 4 semesters of 424V. Students may accumulate 4 semester hours from the following courses, MUS 421V, MUS 423V and MUS 424V to meet the VP requirement.

MUS 425 Opera Workshop. 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. Credit: 1 semester hour.

MUS 426 Musical. 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. Credit: 1 semester hour.
MUS 428 Musical Workshop. 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. Credit: 1 semester hour.

MUS 441 Orchestra. 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. Credit: 1 semester hour.

MUS 441V Orchestra. Same as 441, except that students earn Intellectual Perspectives (IP) credit in Visual & Performing Arts after 4 semesters of 441V.

MUS 442 String Chamber Ensemble. 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. Credit: 1 semester hour.

MUS 443 Handbell Choir. 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. Credit: 1 semester hour.

MUS 444 Keyboard Ensemble. 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. Credit: 1 semester hour.

MUS 561 Field Experience/Internship. 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. Credit: 1 semester hour.

MUS 562 Field Experience/Internship. 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. Credit: 2 semester hours.

MUS 563 Field Experience/Internship. 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. Credit: 3 semester hours.

MUS 564 Field Experience/Internship. 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. Credit: 4 semester hours.

MUS 600 Music Colloquium. Required of all students taking private lessons on primary instruments or voice. Meets twice each week. Prerequisites: none. Corequisite: must also register for private lessons. Credit: 0 semester hours. Grading is S/U only. May be repeated.

MUS 600L Instrumental Performance Lab. For instrumental pedagogy and conducting classes, this lab meets once each week. Performance skills are cultivated. Prerequisite: none. Credit: 0
semester hours; 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. 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. Prerequisite: none. Co-requisite: must also register for private lessons. Credit: 0 semester hours; the grade for MUS 600M will be incorporated into the grade of the appropriate private lesson. May be repeated.

**MUS 601 Capstone Recital.** Students will prepare a portfolio, write a comprehensive capstone document (analyses 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. Credit: 4 semester hours.

**MUS 602 Capstone Lecture Recital.** Students will prepare a portfolio, write a comprehensive capstone document (analyses 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. Credit: 4 semester hours.

**MUS 620, 630, 640, 650 Independent Study.** 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. Credit: 1-4 semester hours.

**MUS 660, 670, 680, 690 Honors Research.**

**NS 341 Behavioral Neuroscience.** 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. A. Gittis. (Also listed as PSY 341 and BIO 433.)

**NS 560, 570, 580, 590 Field Experience/Internship.** 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.** 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. A. Gittis.

**NS 640, 650 Independent Study.** 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 660, 670, 680, 690 Honors Research.** (See p. 59.) Students enrolled in Honors Research participate in PSY 601, 602, NS 631, 632.

**PAX 101 Introduction to Peace Studies.** 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
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multiculturally the many ways societies have found peaceful alternatives. The relationship between peace and justice will be an important theme, as will the ways that religious communities have included peacemaking as part of their “faithful” response to conflict.

PAX 301 Advanced Peace Studies Seminar. 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.

PHI 101 Problems of Philosophy. 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. 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. 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. 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. 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. 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. 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 560, 570, 580, 590 Field Experience/Internship. Prerequisite: consent of the instructor and the department chair.

PHI 601 Philosophy Capstone. 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, 630, 640, 650 Independent Study. An 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 Honors Project. (See p. 59.) NOTE: Students taking Honors in Philosophy will fulfill all the requirements of the Philosophy Capstone (PHI 601).

PHY 101 Physical Science. A study of the basic phenomena and science concepts of the physical world. The course is especially for those preparing for elementary school teaching. The course format is inductive and interactive with student postulation, experimentation, and individual and group processing of observations. An integrated laboratory is included. Offered Fall Semester.

PHY 121 Astronomy. 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. 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. 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 I. 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. Prerequisites: MTH 141 concurrently (or previous) and either MTH 125 concurrently (or previous) or high school calculus. Prerequisites: MTH 150 or MTH 152 concurrently (or previous). Offered Fall Semester.
PHY 152 Principles of II. 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. Prerequisites: PHY 151, MTH 152 concurrently (or previous). Offered Spring Semester.

PHY 221 Electronics. An introductory course covering solid-state circuits and devices important in instrumentation and communications. A laboratory is included. Prerequisite: PHY 152. Offered alternate years.

PHY 251 Particle Dynamics. An examination of the concepts of Newtonian mechanics as applied to the motion of a point mass. Additionally, the theory of relativity is developed with applications to collision processes such as Rutherford and Compton Scattering. Co-requisite: MTH 250; Prerequisite: PHY 152. Offered Fall Semester, alternate years.

PHY 252 Mechanics of Systems. A study of systems of particles beginning with the rigid body approximation. Fluids and other complex systems are modeled using both analytical and numerical techniques. Prerequisite: PHY 251. Offered Spring Semester, alternate years.

PHY 311 Thermal. A study of the thermal characteristics and behavior of matter and energy from macroscopic and microscopic viewpoints. Emphasis is given to the fundamentals of thermodynamics, with some discussion of kinetic theory and statistical mechanics. Co-requisite: MTH 250. Prerequisite: PHY 152. Offered Fall Semester, alternate years.

PHY 312 Waves. A treatment of wave theory, studying significant phenomena pertaining to wave models including matter waves, sound waves, and electromagnetic waves (with an emphasis on physical optics). Prerequisite: PHY 152, MTH 250. Offered Spring 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 Semester, alternate years.

PHY 401 Quantum Mechanics. The theory of quantum mechanics is discussed and studied in detail. Applications are made primarily to atomic structure. Prerequisite: PHY 312. Offered Fall Semester, alternate years.

PHY 403 Electromagnetic Theory. 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, junior or senior standing. Offered Fall Semester, alternate years.

PHY 560, 570, 580, 590 Field Experience/Internship.

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. Interests of students are considered in selecting particular topics. Prerequisite: consent of instructor. Offered on demand.
Courses of Instruction—Public Relations / 201

PHY 620, 630, 640, 650 Independent Study.

PHY 660, 670, 680, 690 Honors Project.

PR 101 Principles, Practices and Theory of Public Relations. 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. 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 302 Public Relations Research for Planning and Evaluation. 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 401 Public Relations Writing. 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. 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. 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 560, 570, 580, 590 Internship. 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. 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, 630, 640, 650 Independent Study.

PR 660, 670, 680, 690 Honors. (See p. 59.)

PS 101 Introduction to Political Science. 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, as well as to the tools of the modern political scientist. Staff.

PS 102 American National Government. 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. 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. 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 211 State and Local Government. A study of the American experience in state and local government, analytically oriented, with the objective of explaining political processes at the subnational 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. 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. 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. This course entails a study of the function and organization of the federal and state court systems and the processes by which justice is administered in America. We will examine the training of lawyers, the selection of judges. This course will look at the questions of jurisdictional boundaries of the various courts, and we will consider the interrelation of the decisions of the judicial branch of government as they impact on policy concerns in the legislative and executive branches of our state and national governments. S. Smithey.
**PS 215 The Politics of Rock and Roll.** 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.** 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.** 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.** 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.** 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.** This course explores the history of African states as colonies, the creation of institutions of domination (such as the apartheid state in South Africa and other authoritarian regimes), and the process of democratization. Additional units will focus on political economy, the AIDS crisis, regional politics, and Africa’s role in international politics. (Occasionally, this course will be offered with a focus on South Africa, clustered with a course on economic development and business of South Africa, and as a travel course). M. Aleprete.

**PS 236 Politics of the Russian Federation & Former Soviet Republics.** 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.** 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 251, 252, 253, 254, 255 Political Science Seminars.** 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 Research Design and Analysis. Introduction to the problems and techniques of research design and analytic methods in political science. Prerequisites: PS 101 and PS 102. J. Rhoads.

PS 302 Seminar—Mock Convention I. 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. (2 hours) Staff

PS 303 Seminar—Mock Convention II. 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. (2 hours) Staff

PS 311 Campaigns and Elections. 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. 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 Constitutional Law: Civil Rights and Liberties. 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. 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. 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. Aleperte.

PS 332 U.S. Foreign Policy. 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. Aleperte.

PS 342 Politics and the Economy. 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.** 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.** 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 560, 570, 580, 590 Field Experience/Internship.** Prerequisites: two courses in political science and consent of department.

**PS 601 Senior Capstone.** An examination of the central theoretical and methodological issues confronting modern political scientists. Students will engage in independent research concerning issues of interest to scholars in all areas of the discipline. Staff.

**PS 620, 630, 640, 650 Independent Study.** Prerequisites: two courses in political science and consent of department.

**PS 660, 670, 680, 690 Honors Project.**

**PSY 101 Introduction to General Psychology.** 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).** 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. Prerequisite: PSY 101. S. Webster.

**PSY 211 Motivation.** Examination of the ultimate and proximal factors that arouse, sustain and direct behavior. Staff.

**PSY 212 Psychology of Personality.** A critical survey of the major theories of personality structure, dynamics, and development. Staff.

**PSY 213 Psychology of Prejudice.** 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. 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 221 Childhood and Adolescence. Principles of human growth and development during childhood and adolescence. M. Medvin. (Students may enroll in 221 or 222, but not both.)

PSY 222 The Developing Child: Childhood and Adolescence. Principles of human growth and development during childhood and adolescence. This course is part of a cluster on ‘The Developing Child’ and must be taken concurrently with ENG 102. Offered alternate years. M. Medvin. (Students may enroll in 221 or 222, but not both.)

PSY 231 Educational Psychology. 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.

PSY 241 Organizational Psychology. A study of the interaction of individual and structural characteristics which influence productivity and human dignity in all organizational settings. Primarily utilizing case-study methods. J. McMinn.

PSY 251 The Internet: Psychology. 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. 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. A. Gittis.

PSY 262 Neuropsychology of Mind. 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. A. Gittis.

PSY 271 Behavior Modification. 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. 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. Aanalysis of the variety of mechanisms by which our behavior and our representations develop from experience. Prerequisite: PSY 101. A. Gittis.

PSY 291 Adulthood and Aging. An examination of the theories and research regarding development and change from young adulthood through old age. M. Medvin.
PSY 301 Psychological Assessment. 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. 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.

PSY 321 Social Psychology. 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. 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.

PSY 341 Behavioral Neuroscience. 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. A. Gittis. (Also listed as NS 341.)

PSY 351 Cognition. Memory, problem solving, language and intelligence considered from information processing and alternative views. Prerequisite: PSY 101. K. Lunnen.

PSY 401 Abnormal Psychology. 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. 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 PSY 222 or consent of instructor. M. Medvin.

PSY 421 Clinical Psychology: Theory and Practice. 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 422 Developmental Psychopathology. An overview of problems and processes that lead to abnormal development. Prerequisite: PSY 101. M. Medvin.

PSY 560, 570, 580, 590 Field Experience/Internship. 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. This course carries two semester hours credit and is 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. This course carries two semester hours credit and is 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.** 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 Independent Study.** 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.** 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.** A. Gittis.

**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 660, 670, 680, 690 Honors Research.** (See p. 59.) Students enrolled in Honors Research participate in PSY Capstone I and II and the Advanced Research Seminars.

**REA 101 College Success Skills.** A survey course designed to help students become more proficient readers of college texts. The concept that reading is a communication process, sharing a relationship with writing and speech, will be examined, and strategies which enhance the reading process will be studied and applied. Included in the course are the following topics: establishing appropriate study habits, organizing lecture and reading notes, and preparing for tests. This class is for students whose entrance test scores indicate a need. No course credit. S. Huey.

**REL 101 Understanding the Bible.** 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.** 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. 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. 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 Program take this required course before taking REL 107. Offered each fall.

REL 107 New Testament. 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 Program take REL 106 before taking this course. Offered each spring.

REL 111 Understanding Religious Experience and Expression. 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. 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. 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. 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 121 Gender and Religion. 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. 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 126 Faith and Theology: Foundations in Christian Education. 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.
REL 131 Early Christianity: Christ and Caesar. 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, socioeconomic, religious, and cultural aspects. (Also listed as HIS 120.)

REL 201 God and Moses in Torah. 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 interpretive approaches.

REL 202 Prophetic Literature. 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. 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. (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. 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. 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. 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. 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. 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. 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. 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. A study of religious belief systems, organizations, and movements as they derive from and influence a social context. Some attention is given to the debate about secularization. (Also listed as SOC 303.)

REL 222 Philosophy of Religion. 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 226 Christian Ministry with Children. 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.

REL 227 Christian Ministry with Youth. 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.

REL 228 Christian Ministry with Adults. 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.

REL 301 Applied Biblical Interpretation. 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. 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. 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. 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 321 Christian Education Administration. 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.

REL 560, 570, 580, 590 Field Experience/Internship. 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. This course is required of senior majors in religion and Christian education who are not doing an Honors Project in religion.

REL 620, 630, 640, 650 Independent Study. 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 Honors Project. (See p. 59.)

SCI 140 Studies in Science: Weather. A study of the physical processes occurring in the atmosphere which determine weather and climate. Also included will be brief studies of weather patterns, the influence of weather on the quality of life, both past and future, and the influence of our past and future activities on weather and climate. A laboratory is included.

SCI 141 Studies in Science: Flight. This course introduces the scientific principles of flight. Starting with fundamental notions of force, velocity and acceleration, we will move on to an understanding of the aerodynamics that supports animal and human flight. Rocket and space flight are then discussed. The technology underlying the commercial airspace system (regulations, navigation, communication, etc.) is explained. A small part of the course will be devoted to building an appreciation of the literature and lore of flight. An optional (extra cost) feature will be an opportunity for students to plan and execute a three-hour cross-country flight in a small aircraft.

SCI 142 The Science of Music. This course explores the role that physics and other sciences can play in developing an understanding and appreciation of the aesthetic qualities of music. Starting with fundamental ideas of force, motion, and energy, we will see how musical instruments work and how the listening environment affects perception. Electronic creation and reproduction methods are explained. The course concludes with a paper, project, or artistic presentation on some course-related topic that especially interests the student. A laboratory is included.
SCI 150 Introduction to Forensic Science. 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. 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. Joseph.

SED 201 Foundations of Special Education. This course is designed as an introduction to the field of special education for elementary education majors. 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. L. Domanski.

SED 401 Legal Issues and Assessment in Special Education. This course is designed to provide a basic understanding of the approaches and purposes of assessment, including the legal and ethical considerations of measurement and evaluation of students who have special needs. L. Domanski.

SED 402 Behavior Management in Special Education. 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.

SED 403 Instructional Strategies for Special Education. This course is designed to provide instructional techniques and strategies to assist the learner who has special needs in an inclusive classroom setting. L. Domanski.

SED 404 Reading Strategies for Exceptional Children. 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.

SED 572 Field Experience—Special Education (2 SH). An off-campus experience in a K-12 school or institutional setting intended to provide the student with opportunities to participate with teachers and children in classrooms. For Special Education certification track students and other minors who desire an experience with children or youth who have special needs. Prerequisites: must have completed at least one semester and one education course at Westminster College and have a GPA of at least 2.500. Graded S/U. L. Domanski.

SED 602/EDU 602 Elementary Education and Special Education Certification Capstone. Student Teaching (16 SH). A supervised dual student teaching experience open to elementary education majors who are also special education certification track students who have completed the pattern of required courses. Students are required to participate in related seminars. In addition to the regular tuition and fees, there is a student teaching fee.

SOC 101 Principles of Sociology. An introduction to the concepts and methods used in the systematic study of society, including a discussion of what is distinctive about the sociological perspective. Staff.
SOC 102 Deviance. A n 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. P. Kitzerow.

SOC 104 Social Inequality. A n examination of the various forms and systems of social inequality in human societies, with attention to the mechanisms which perpetuate inequalities, ideologies which legitimate 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 105 Cultural Anthropology. 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, different conceptions of societal development, and historical relationships between industrial and pre-industrial societies. K. Park.

SOC 106 Individual and Society. A nalysis 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. Offered alternate years. P. Kitzerow, G. Lilly.

SOC 107 Sociology of Gender. A n 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. P. Kitzerow.

SOC 108 Social Problems, Social Policies. A n 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.

SOC 201 Juvenile Delinquency. A n 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. P. Kitzerow, D. Ficco.

SOC 202 Criminology. A study of the social context of crime in America, including a brief review of theories offered in explanation of criminal behavior. This course will emphasize the workings of the criminal justice system and will deal with corrections in some depth. Offered Fall Semester. S. Smithey.

SOC 204 Introduction to Social Work. A n 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. D. Ficco.

SOC 209 Minority-Majority Relations. A study of minority/majority group relationships primarily within the United States. Theoretical explanations and historical contexts are discussed. P. Kitzerow.

SOC 210 Gerontology. 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. Offered alternate years.
SOC 215 *Women in Cross-Cultural Perspective*. 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. Offered alternate years. K. Park.

SOC 250 *Social Theory*. 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. Offered Fall Semester. P. Kitzerow, K. Park.

SOC 302 *The Sociology of Law and Legal Systems (formerly listed as SOC 203)*. 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 102. Offered Spring Semester. G. Lilly.

SOC 303 *Religion and Society*. 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. Offered alternate years. K. Park. (Also listed as REL 221.)

SOC 304 *Social Change*. An investigation into processes by which large-scale modifications of societies occur, current thinking about social evolution, changes in modern society, and “modernization” of the third-world nations. G. Lilly, K. Park.

SOC 305 *Sociology of Organizations*. A general analysis of human organizations, their structures, normative systems, and conflicts. A special emphasis is placed on theories of bureaucracy. Offered alternate years. G. Lilly.

SOC 306 *Gender and Family*. 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. P. Kitzerow.

SOC 327 *Medical Sociology*. 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. G. Lilly.

SOC 401 *Studies in Sociology*. Studies in the structures and processes of society. Individual sections will deal with specific aspects of society not included in the regular curriculum. This course is designed for sociology majors and minors. Topics will be announced prior to registration. Staff.

SOC 560, 570, 580, 590 *Field Experience/Internship*.

SOC 601 *Sociology Capstone I*. 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.

SOC 602 *Sociology Capstone II*. The student will conduct a significant research project in the fall of the senior year.
SOC 620, 630, 640, 650 Independent Study.

SOC 660, 670, 680, 690 Honors Project. (See p. 59.)

SPA 101 Elementary Spanish I. 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. A continuation of the skills and emphases stated for SPA 101. Prerequisite: SPA 101 or at least one year of high school Spanish.

SPA 201 Intermediate Spanish I. 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 at least two years of high school Spanish.

SPA 202 Intermediate Spanish II. A continuation of the skills and emphases stated for SPA 201. Prerequisite: SPA 201 or at least three years of high school Spanish.

SPA 301 Advanced Conversation and Composition I. 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 at least four years of high school Spanish.

SPA 302 Advanced Conversation and Composition II. A continuation of the skills and emphases stated for SPA 301. Prerequisite: SPA 301 or consent of instructor.

SPA 303 Commercial Spanish. 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. 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. 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. 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. 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. 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. 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. 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. 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. An in-depth study focusing on a major peninsular Spanish writer, genre, period, or significant theme. Prerequisite: SPA 302 or consent of instructor.

SPA 560, 570, 580, 590 Field Experience/Internship. Prerequisite: SPA 301 or consent of instructor.

SPA 601 Spanish Capstone. 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, 630, 640, 650 Independent Study. 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. (See p. 59.)

SPE 111 Introduction to Public Communications. 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.

SSC 251 Research Methods for Social Science. 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. M. Aleprete, G. Lilly, K. Park, S. Smithey, V. Tomlinson.

SSC 252 Data Analysis for Social Science. 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 consent of instructor. M. Aleprete, G. Lilly, S. Smithey.

THE 101 Introduction to Theatre. 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.** 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. Students are required to keep an acting journal.

**THE 103 Audio Production.** This course is taught as part of the broadcast communications major, but many of the skills are useful for theatre majors and minors. The course teaches the theory of audio as well as instruction in the preparation of audio materials using both digital and analog equipment. A lab is required. Prerequisite: THE 111 or consent of instructor. (Also listed as BC 102.)

**THE 111 Technical Production.** 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.** 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.

**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. Students may not take a practicum while completing a course that requires lab work in the theater.

**THE 151 Voice and Diction.** 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.** 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 Advanced Acting.** 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. Students will be required to keep an acting journal. Prerequisite: THE 102.

**THE 203 Interpretation and Performance (Studio).** 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, short scenes, and an increased number of monologues from period plays. Students will be required to keep an acting journal.
THE 211 American Playwrights. This entry-level course introduces students to significant, often groundbreaking dramas by the most acclaimed American playwrights of the twentieth 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. No prerequisite. Satisfies IP for Humanities and Culture (HC).

THE 212 Shakespeare’s Plays. 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.

THE 213 African-American Drama. 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.

THE 251 Oral Interpretation. 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.

THE 255 Playwriting. 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.

THE 301, 302, 303, 304 Theatre Practicum. Major assignments in departmental productions: acting, directing, stage managing, lighting, sound. One course credit is earned for four semesters. Prerequisite: junior standing or consent of instructor.

THE 311, 312, 313, 314 Professional Workshop. (1 semester hour 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. 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 351 Theatre History. A study of the Classical, Medieval, Italian Renaissance, English Renaissance, Modern, and Contemporary periods of theatre history. 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. Introduction to scenic design for the theatre. Graphic presentation and/or model making. Prerequisite: THE 321.

THE 402 Stage Lighting. 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.** 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.**

**THE 560, 570, 580, 590 Field Experience/Internship.**

**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, 630, 640, 650 Independent Study.**

**THE 660, 670, 680, 690 Honors Research.**

**WRI 111 Writing.** 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 201 Journalism I.** 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.** A 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 a lab requirement, students will work with the Holcad staff and submit stories for print consideration. Prerequisite: successful completion of WRI 201.

**WRI 252 Career Writing.** A course in the various types of practical writing required in the workplace. Prerequisite: successful completion of WRI 111.

**WRI 253 Poetry Workshop.** A beginning workshop in which students develop skills in reading, evaluating, writing and revising poetry.
WRI 254 Fiction Workshop. A beginning workshop in which students develop skills in reading, evaluating, writing and revising fiction.

WRI 255 Playwriting Workshop. A beginning workshop in which students develop skills in reading, evaluating, writing and revising plays.

WRI 256 Screenwriting Workshop. A beginning workshop in which students develop skills in reading, evaluating, writing and revising screenplays. (Also listed as FS 256.)

WRI 258 Technical Writing. 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. 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 560, 570, 580, 590 Field Experience/Internship.

WRI 620, 630, 640, 650 Independent Study.
Board of Trustees
Administration
Faculty
The Directories for 2008-2009

The Board of Trustees

Not Available online
The Administration, 2008-2009

The date of initial appointment to Westminster College is given in parentheses.

Executive Staff

RICHARD H. DORMAN (2008) President of the College
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GLORIA C. CAGIGAS (1989-92; 1994) Vice President for Institutional Advancement
B.S., Lake Erie College

NEAL A. EDMAN (1988) Dean of Student Affairs
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
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BRADLEY P. TOKAR (1993) Dean of Admissions and Enrollment Management
B.A., M.Ed., Westminster College
President’s Office

SCOTT COY (2007) Assistant Football Coach
Assistant Track and Field Coach
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JAMES E. DAFLER (1988) Director of Athletics
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JEFFREY A. HAND (2005) Head Football Coach
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ROBERT C. KERR (2005) Assistant Men’s Basketball Coach
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KATHERINE L. MILLER (2002) Assistant Women’s Basketball Coach
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Assistant Women’s Soccer Coach
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Assistant Track Coach
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TAMMY L. SWEARINGEN (1993) Associate Professor of Physical Education
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Assistant Swimming Coach, Head Women’s Volleyball Coach
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GIRISH THAKAR (1998)  Head Soccer Coach  
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SHAUN J. TOOMEY (1987)  Athletic Trainer  
B.S., Miami University of Ohio; M.S., Indiana State University

THOMAS B. WATTS (2008)  Assistant Football Coach  
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Academic Affairs

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CHARLES M. CHIROZZI (1988)  Chief Engineer

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MOLLY P. SPINNEY (1975)  Associate Professor, Head Librarian
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PAUL N. WALLACE (1981)  Director of Information Systems
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B.A., Waynesburg College; M.S., West Virginia University

Student Affairs

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JAMES L. GARDNER III, M.D. College Physician
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B.S., M.A., Northwestern State University of Louisiana

JEANNETTE HUBBARD (2001) Director of Diversity Services
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COREY SHAW (2008)  Director of Disability Support Services
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GINA M. VANCE (2006)  Assistant Dean of Student Affairs,
Residence Life and Leadership Development
B.S., Mount Union College; M.Ed., Kent State University

The Faculty, 2008-2009

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.

ANDREW W. ADE (2003)  Assistant Professor of English
B.A., Northwestern University; M.A., Ph.D., University of North Carolina, Chapel Hill

RITA MADARASSY AKIN (2003)  Assistant Professor of Economics
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MICHAEL E. ALEPRETE JR. (2007)  Assistant Professor of Political Science
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JOSEPH M. BALCZON (1997)  Associate Professor of Biology
Chair of the Department of Biology,
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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

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Director of Off-Campus Study
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B.F.A., Miami University; M.F.A., Syracuse University

DORITA F. BOLGER (1981)  Professor, Librarian
B.A., Pennsylvania State University; M.S.L.S., Clarion University
JOHN P. BONOMO (1998) Associate Professor of Computer Science
Joint M.S. and B.S., Catholic University; Ph.D., Purdue University

CAROL M. BOVÉ (1984) Professor of French
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**HELEN M. BOYLAN (2001) Associate Professor of Chemistry
B.S., Westminster College; Ph.D., Duquesne University

AMY H. CAMARDESE (2001) Associate Professor of Education
B.S.Ed., Ohio University; M.Ed., University of Pittsburgh; Ph.D., Kent State University

A. DWIGHT CASTRO (1970) Professor of Classics
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CRAIG L. CAYLOR (2001) Associate Professor of Physics
Chair of the Department of Physics
B.S., Kansas State University; M.S., Ph.D., Cornell University

PATRICIA G. CLARK (2004) Assistant Professor of History
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EDWARD S. COHEN (1996) Associate Professor of Political Science
Chair of the Department of Political Science and Sociology, Chair, Law PAC
B.A., Brooklyn College; M.A., Ph.D., University of Wisconsin–Madison

JOSHUA C. CORRETTE-BENNETT (2001) Associate Professor of Biology
B.S., Bates College; Ph.D., Brandeis University

KEITH F. CORSO (2004) Instructor of Speech Communication
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B.A., University of Louisville; M.F.A., University of Pennsylvania

CAROLYN K. CUFF (1989) Professor of Mathematics
Chair of the Department of Mathematics and Computer Science
B.S., Westminster College; M.S., Ph.D., Case Western Reserve University

TIMOTHY CUFF (2000) Associate Professor of History
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BEVERLY WHITE CUSHMAN (2004) Assistant Professor of Religion and Christian Education
B.A., Stetson University; M.Div., M.A., Ph.D., Vanderbilt University

**On sabbatical leave Spring Semester 2009
DAVID O. CUSHMAN (2005)  Professor of Economics
Chair of the Department of Economics and Business
Captain William McKee Chair of Economics and Business
B.A., Stetson University; M.A., Ph.D., Vanderbilt University

COLLEEN M. BURKE DEISLER (2002)  Assistant Professor of Communication Studies
B.A., M.A., Duquesne University; Ph.D., Duquesne University

NANCY J. DESALVO (2000)  Associate Professor of Music
Chair of the Department of Music
B.M., Youngstown State University; M.M., Manhattan School of Music; D.M.A., The Cleveland Institute of Music

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B.S., M.Ed., Slippery Rock University; Ed.D., University of Pittsburgh

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B.A., M.A., Fresno Pacific College; Ph.D., University of Arizona

**WILLIAM J. EVANS (2001)  Professor of Education
B.A., The Pennsylvania State University; M.S., Ed., Youngstown State University; Ph.D., Kent State University

BARBARA T. FAIRES (1971-72; 1976)  Professor of Mathematics
B.S., East Carolina University; M.S., University of South Carolina; Ph.D., Kent State University

PAULA R. FERGUSON (2008)  Visiting Lecturer of Theatre
B.A., Youngstown State University

DANIELLE M. FICCO (2007)  Visiting Assistant Professor of Sociology
B.A., M.A., Indiana University of Pennsylvania; Ph.D., University of Pittsburgh

DANIEL E. FISCHMAR (1975)  Professor of Economics and Business
B.A., M.A., Roosevelt University; Ph.D., Southern Illinois University, Carbondale

NATACHA FONTES-MERZ (2004)  Assistant Professor of Mathematics
B.A., Oberlin College; M.A., Ph.D., Kent State University

MAROSH FURIMSKY (2006)  Assistant Professor of Biology
B.S., Ph.D., University of Ottawa

EVANN G. GARRISON (2003)  Lecturer of English
B.A., Westminster College; M.F.A., Duke University

*On sabbatical leave Fall Semester 2008
**On sabbatical leave Spring Semester 2009
ALAN G. GITTIS (1976)  Professor of Psychology
Chair of the Department of Psychology
B.A., Temple University; M.A., Ph.D., Ohio State University

DAVID W. GOLDBERG (2002)  Associate Professor of Philosophy
B.A., M.A., Pennsylvania State University; Ph.D., Duquesne University

R. TAD GREIG (1995)  Assistant Professor of Music, Director of Bands
B.M., Grove City College; M.M., Youngstown State University; Ph.D., Kent State University

BETHANY F. HICOK (2001)  Associate Professor of English
B.A., Russell Sage College; M.A.T., M.A., Ph.D., University of Rochester

JOYCE E. HOELLEIN (1994)  Lecturer of Education
B.A., West Virginia Wesleyan College; M.Ed., Edinboro University

JASON T. HOWARD (2007)  Visiting Lecturer of Music
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DARWIN W. HUEY (1977)  Professor of Education
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MARTHA R. JOSEPH (1993)  Associate Professor of Chemistry
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PHYLIS G. KITZEROW (1978)  Professor of Sociology
B.S., University of Wisconsin; M.A., Ph.D., University of Pittsburgh

JACQUE L. KING (2006)  Assistant Professor of Business
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Head Swim Coach, Assistant Track Coach
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KATHY KOOP (1973)  Professor of Art
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PATRICK D. KRANTZ (2002)  Associate Professor of Education
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Director of Institutional Research, Head Cross Country Coach  
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Director of Choral Activities  
B.A., Albertsons College of Idaho; M.A., University of Oregon; Ph.D., University of Utah

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JESSE T. MANN (1984) Vice President for Academic Affairs  
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Gibson-Drinko Distinguished Chair of Psychology  
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GAIL L. MILLER (1983) Professor of Business  
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*On sabbatical leave Fall Semester 2008
THE DIRECTORIES

SHAHRUKH MISTRY (2003) Associate Professor of Biology  
B.Sc., M.Sc., Maharaja Sayajirao University of Baroda, India; M.S., University of Tennessee; Ph.D., University of New Mexico

DEBORAH C. MITCHELL (1992) Associate Professor of English and Public Relations  
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JONATHAN R. MOSER (2005) Instructor of Music  
B.M., Shenandoah University; M.M., Arizona State University

ANN L. MURPHY (1995) Associate Professor of French and Spanish  
B.A., Clark University; M.A., Ph.D., Brown University

KANG-YUP NA (1998) Associate Professor of Religion  
A.B., Princeton University; M.Div., Princeton Theological Seminary; Ph.D., Emory University

DELORES A. NATALE (2001) Lecturer in Public Relations  
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SUSAN W. PARKER (2008) Assistant Professor of Education  
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SHERRI P. PATAKI (2004) Assistant Professor of Psychology  
B.S. Allegheny College; Ph.D., Carnegie Mellon University

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GROVER A. PITMAN (1978) Professor of Music  
B.M., M.M., University of Texas at Austin; Ph.D., Catholic University of America

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Chair of the Department of Chemistry
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