<table>
<thead>
<tr>
<th>Presidents of Westminster College</th>
</tr>
</thead>
<tbody>
<tr>
<td>JAMES PATTERSON, D.D. 1853–1866</td>
</tr>
<tr>
<td>ROBERT AUDLEY BROWNE, D.D. 1867–1870</td>
</tr>
<tr>
<td>E. TUPPER JEFFERS, D.D. 1872–1883</td>
</tr>
<tr>
<td>ROBERT GRACEY FERGUSON, D.D., LL.D. 1884–1906</td>
</tr>
<tr>
<td>ROBERT McWATTY RUSSELL, D.D., LL.D. 1906–1915</td>
</tr>
<tr>
<td>W. CHARLES WALLACE, D.D. 1916–1931</td>
</tr>
<tr>
<td>ROBERT F. GALBREATH, D.D., LL.D. 1932–1946</td>
</tr>
<tr>
<td>ALLEN P. SPLETE, Ph.D. 1982–1985</td>
</tr>
<tr>
<td>OSCAR E. REMICK, Ph.D. 1987–1997</td>
</tr>
</tbody>
</table>
ACADEMIC BUILDINGS
1. Old Main
   - Tower Room
   - Wallace Memorial Chapel
2. McGill Memorial Library
   - Miller Board Room
3. Thompson-Clark & Charles Freeman Science Halls
4. Patterson Hall
   - Art Gallery
   - Beeghly Theater
   - Orr Auditorium
5. Hoyt Science Resources Center
   - Information Systems
   - J.S. Mack Science Library
   - Phillips Lecture Hall
6. Memorial Field House
   - Natatorium and Fitness Center
   - Buzz Ridl Gymnasium
   - T.V. Mansell Education Wing
7. Old 77

RESIDENCE HALLS
8. Ferguson Hall
9A. Browne Hall
9B. Galbreath Hall
   - Duff Dining Room
   - Lindley Dining Room
10. Shaw Hall
   - Student Health Center
11. Jeffers Hall
12. Eichenauer Hall
   - Down Under
13. Hillside Hall
14. Russell Hall
   - Russell Dining Room

ADDITIONAL BUILDINGS
15. Physical Plant Buildings
16. Anderson Amphitheater
17. Walton-Mayne Union Building (TUB)
18. President’s Home
19. Thompson House
20. Henley Pavilion
21. Remick Admissions House
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 Market Street, New Wilmington, PA 16172. The College switchboard number is (724) 946-8761; Fax: (724) 946-7171; World Wide Web address: www.westminster.edu.

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# Contents

## COLLEGE INFORMATION

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Information</td>
<td>5</td>
</tr>
<tr>
<td>2002-2003 Academic Calendar</td>
<td>6</td>
</tr>
<tr>
<td>The College</td>
<td>8</td>
</tr>
<tr>
<td>The College</td>
<td>9</td>
</tr>
<tr>
<td>Philosophy and Purposes</td>
<td>10</td>
</tr>
<tr>
<td>The Campus</td>
<td>12</td>
</tr>
<tr>
<td>Academic Buildings</td>
<td>12</td>
</tr>
<tr>
<td>Academic Support Resources</td>
<td>14</td>
</tr>
<tr>
<td>Outdoor Resources</td>
<td>16</td>
</tr>
<tr>
<td>Residence Halls</td>
<td>16</td>
</tr>
<tr>
<td>Service Buildings</td>
<td>17</td>
</tr>
<tr>
<td>Student Life</td>
<td>18</td>
</tr>
<tr>
<td>Activities</td>
<td>18</td>
</tr>
<tr>
<td>Student Societies</td>
<td>22</td>
</tr>
<tr>
<td>Student Services</td>
<td>27</td>
</tr>
<tr>
<td>Student Life Policies</td>
<td>30</td>
</tr>
<tr>
<td>Admission and Financial Information</td>
<td>33</td>
</tr>
<tr>
<td>Admission Requirements</td>
<td>34</td>
</tr>
<tr>
<td>Expenses</td>
<td>39</td>
</tr>
<tr>
<td>Basic Fees and Charges</td>
<td>39</td>
</tr>
<tr>
<td>Special Fees</td>
<td>40</td>
</tr>
<tr>
<td>Financial Aid</td>
<td>43</td>
</tr>
<tr>
<td>Endowed Scholarships</td>
<td>46</td>
</tr>
<tr>
<td>Endowed Prizes and Awards</td>
<td>61</td>
</tr>
<tr>
<td>Prizes, Awards and Scholarships (non-endowed)</td>
<td>62</td>
</tr>
<tr>
<td>Academic Policies</td>
<td>65</td>
</tr>
<tr>
<td>Graduation Requirements</td>
<td>67</td>
</tr>
<tr>
<td>The Westminster Plan</td>
<td>68</td>
</tr>
<tr>
<td>Liberal Studies Curriculum</td>
<td>68</td>
</tr>
<tr>
<td>The First-Year Program</td>
<td>68</td>
</tr>
<tr>
<td>Intellectual Perspectives</td>
<td>70</td>
</tr>
<tr>
<td>Cluster Courses</td>
<td>70</td>
</tr>
<tr>
<td>Senior Capstone</td>
<td>70</td>
</tr>
<tr>
<td>Other Graduation Requirements</td>
<td>70</td>
</tr>
<tr>
<td>Academic Advising</td>
<td>72</td>
</tr>
<tr>
<td>Comprehensive Examination</td>
<td>73</td>
</tr>
<tr>
<td>Special Study Opportunities</td>
<td>73</td>
</tr>
<tr>
<td>Internship Program</td>
<td>75</td>
</tr>
<tr>
<td>Registration</td>
<td>76</td>
</tr>
<tr>
<td>Academic Recognition</td>
<td>81</td>
</tr>
<tr>
<td>Withdrawal</td>
<td>82</td>
</tr>
<tr>
<td>Summer Session</td>
<td>83</td>
</tr>
<tr>
<td>Student Regulations</td>
<td>83</td>
</tr>
<tr>
<td>Pre-Professional Programs</td>
<td>86</td>
</tr>
<tr>
<td>Master of Health Management Systems</td>
<td>86</td>
</tr>
<tr>
<td>Pre-Law Program</td>
<td>86</td>
</tr>
<tr>
<td>Health Sciences (Pre-Med, Pre-Dent, Pre-Vet, etc.)</td>
<td>87</td>
</tr>
<tr>
<td>Pre-Seminary Preparation</td>
<td>87</td>
</tr>
<tr>
<td>Teacher Preparation</td>
<td>87</td>
</tr>
<tr>
<td>3-2 Engineering</td>
<td>88</td>
</tr>
<tr>
<td>3-2 Environmental Science</td>
<td>88</td>
</tr>
<tr>
<td>Master of Occupational Therapy</td>
<td>89</td>
</tr>
<tr>
<td>Courses of Instruction and Majors</td>
<td>90</td>
</tr>
<tr>
<td>The Directories (Board of Trustees, Administration, Faculty)</td>
<td>236</td>
</tr>
<tr>
<td>Index</td>
<td>260</td>
</tr>
<tr>
<td>Campus Map</td>
<td>inside back cover</td>
</tr>
</tbody>
</table>
# Contents (cont’d)

## MAJOR PROGRAMS & DEPARTMENTS

<table>
<thead>
<tr>
<th>Program/Department</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biology, Department of</td>
<td>92</td>
</tr>
<tr>
<td>Biology</td>
<td>92</td>
</tr>
<tr>
<td>Molecular Biology</td>
<td>93</td>
</tr>
<tr>
<td>Chemistry, Department of</td>
<td>100</td>
</tr>
<tr>
<td>Chemistry</td>
<td>100</td>
</tr>
<tr>
<td>Communication Studies, Theatre, and Art, Department of</td>
<td>105</td>
</tr>
<tr>
<td>Broadcast Communications</td>
<td>105</td>
</tr>
<tr>
<td>Speech Communication</td>
<td>108</td>
</tr>
<tr>
<td>Theatre</td>
<td>111</td>
</tr>
<tr>
<td>Fine Art</td>
<td>113</td>
</tr>
<tr>
<td>Media Art</td>
<td>113</td>
</tr>
<tr>
<td>Economics and Business, Department of</td>
<td>118</td>
</tr>
<tr>
<td>Accounting</td>
<td>119</td>
</tr>
<tr>
<td>Business Administration</td>
<td>119</td>
</tr>
<tr>
<td>Economics</td>
<td>120</td>
</tr>
<tr>
<td>Education, Department of</td>
<td>126</td>
</tr>
<tr>
<td>Elementary Education</td>
<td>128</td>
</tr>
<tr>
<td>English and Public Relations, Department of</td>
<td>134</td>
</tr>
<tr>
<td>English</td>
<td>135</td>
</tr>
<tr>
<td>Public Relations</td>
<td>139</td>
</tr>
<tr>
<td>Mathematics and Computer Science, Department of</td>
<td>148</td>
</tr>
<tr>
<td>Math</td>
<td>149</td>
</tr>
<tr>
<td>Computer Science</td>
<td>152</td>
</tr>
<tr>
<td>Computer Information Systems</td>
<td>153</td>
</tr>
<tr>
<td>Modern Languages, Department of</td>
<td>156</td>
</tr>
<tr>
<td>French</td>
<td>158</td>
</tr>
<tr>
<td>German</td>
<td>160</td>
</tr>
<tr>
<td>Spanish</td>
<td>162</td>
</tr>
<tr>
<td>Music, Department of</td>
<td>166</td>
</tr>
<tr>
<td>Music Education</td>
<td>168</td>
</tr>
<tr>
<td>Performance</td>
<td>170</td>
</tr>
<tr>
<td>Sacred Music</td>
<td>172</td>
</tr>
<tr>
<td>Music</td>
<td>173</td>
</tr>
<tr>
<td>Physical Education, Department of (no major programs)</td>
<td>191</td>
</tr>
<tr>
<td>Physics, Department of</td>
<td>193</td>
</tr>
<tr>
<td>Political Science and Sociology, Department of</td>
<td>196</td>
</tr>
<tr>
<td>Political Science</td>
<td>197</td>
</tr>
<tr>
<td>Sociology 202</td>
<td></td>
</tr>
<tr>
<td>Psychology, Department of</td>
<td>206</td>
</tr>
<tr>
<td>Psychology</td>
<td>206</td>
</tr>
<tr>
<td>Religion, History, Philosophy, and Classics, Department of</td>
<td>213</td>
</tr>
<tr>
<td>Christian Education</td>
<td>214</td>
</tr>
<tr>
<td>Religion</td>
<td>215</td>
</tr>
<tr>
<td>History</td>
<td>220</td>
</tr>
<tr>
<td>Philosophy</td>
<td>226</td>
</tr>
<tr>
<td>Latin</td>
<td>230</td>
</tr>
<tr>
<td>Interdisciplinary Majors</td>
<td></td>
</tr>
<tr>
<td>Environmental Science</td>
<td>142</td>
</tr>
<tr>
<td>Financial Economics</td>
<td>144</td>
</tr>
<tr>
<td>Intercultural Studies</td>
<td>146</td>
</tr>
<tr>
<td>International Business</td>
<td>146</td>
</tr>
<tr>
<td>International Politics</td>
<td>147</td>
</tr>
<tr>
<td>Neuroscience</td>
<td>188</td>
</tr>
<tr>
<td>Psychology-Human Resources</td>
<td>212</td>
</tr>
</tbody>
</table>
Calendar 2002-2003

FALL SEMESTER 2002

Aug. 21 ............... Wed. ............... New Faculty Orientation
Aug. 22 ............... Thurs. ............... Faculty Workshop
Aug. 23 ............... Fri. ............... New Students Arrive
Aug. 23 ............... Fri. ............... Opening Convocation
Aug. 23–26 ............ Fri.–Mon. ............ New Student Orientation
Aug. 27 ............... Tues. ............... Classes Begin
Oct. 19–22 ............. Sat.–Tues. ........... Mid-semester Break
Oct. 23 ............... Wed. ............... Classes Resume
Nov. 27–Dec. 1 ........ Wed.–Sun. ........... Thanksgiving Break
Dec. 2 ............... Mon. ............... Classes Resume
Dec. 10 ............... Tues. ............... Reading Day
Dec. 11–14 .............. Wed.–Sat. ........... Final Period

FALL SEMESTER DEADLINES 2002

Aug. 27 ($10 fee) ........ Tues. ............... Late Registration (for returning students)
Sept. 3 ............... Tues. ............... Last day to Add/Drop (no fee)
Sept. 10 ............... Tues. ............... Last day to Add ($15 fee)
Sept. 17 ............... Tues. ............... Last day to Drop ($15 fee)
Oct. 16 ............... Wed. ............... Convert “Incompletes”
Oct. 23 ............... Wed. ............... First-year student mid-term grades due
Nov. 11–14 ............. Mon.–Thurs. ........ Early Registration: Spring Semester 2003
Nov. 6 ($15 fee) ........ Wed. ............... Withdraw with “W” (if approved)
Upperclass and Transfer Students
Nov. 6 ($15 fee) ........ Wed. ............... Drop (one class only)
First-year Students Only

SPRING SEMESTER 2003

<table>
<thead>
<tr>
<th>AUGUST ‘02</th>
<th>SEPTEMBER ‘02</th>
<th>OCTOBER ‘02</th>
<th>NOVEMBER ‘02</th>
<th>DECEMBER ‘02</th>
<th>JANUARY ‘03</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 2 3</td>
<td>1 2 3 4 5 6 7</td>
<td>1 2 3 4 5 6 7</td>
<td>1 2 3 4 5 6 7</td>
<td>1 2 3 4 5 6 7</td>
<td>1 2 3 4 5 6 7</td>
</tr>
<tr>
<td>4 5 6 7 8 9 10</td>
<td>8 9 10 11 12 13 14</td>
<td>6 7 8 9 10 11 12</td>
<td>3 4 5 6 7 8 9</td>
<td>10 11 12 13 14 15 16</td>
<td>5 6 7 8 9 10 11</td>
</tr>
</tbody>
</table>
Jan. 20 ....................... Mon. ................. Classes Begin
March 8–16 ............... Sat.–Sun. .............. Mid-semester Break
March 17 ..................... Mon. ................ Classes Resume
April 18–21 ............... Fri.–Mon. ............ Easter Break
April 22 ...................... Tues. ................ Classes Resume
May 7 .......................... Wed. ................ Reading Day
May 8–12 ..................... Thurs.–Mon. ....... Final Period
May 17 ........................ Sat. ................... Baccalaureate/Commencement

**SPRING SEMESTER DEADLINES 2003**

Jan. 20  ($10 fee) ........... Mon. ................ Late Registration (for returning students)
Jan. 27 ...................... Mon. ................ Late day to Add/Drop (no fee)
Feb. 3 ....................... Mon. ................ Late day to Add ($15 fee)
Feb. 10 ...................... Mon. ................ Last day to Drop ($15 fee)
Mar. 7 ....................... Fri. .................. Convert “Incompletes”
Apr. 4 ($15 fee) ............ Fri. .................... Withdraw with “W” (if approved)
Apr. 8–10 .................... Tues.–Thurs. ......... Early Registration: Fall Semester 2003

**SUMMER SESSION 2003**

First Session
June 9 ....................... Mon. ................ Registration/Classes Begin
July 21 ...................... 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 21 buildings, athletic fields, tennis courts, 100-acre outdoor laboratory and Brittain Lake.

Students: Westminster’s enrollment is about 1,500 undergraduates, 200 graduate students and 100 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, which maintains an office in Washington, D.C.

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 40 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.
Overview

The Campus

Student Life
Westminster College is an independent, coeducational liberal arts college, related to the Presbyterian Church (U.S.A.). For 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. It does not discriminate on the basis of race, creed, age, sex, handicap, or national and ethnic origin.

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

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 Presbyterian College Union, and other national organizations. Regionally, Westminster belongs to the East Central Colleges, a consortium of eight 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 21 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.

CHARLES FREEMAN HALL. Built in 1953 and named after chemistry professor Charles Freeman, this structure provides facilities for Cable 9-TV, the campus security office and audio-visual services.

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 1944-78 and president of the Board from 1964-78, 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 1,750-seat Will W. Orr Auditorium (named for Westminster’s ninth president), the 300-seat Beeghly Theater, the WWNW-88.9 FM radio station, 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. During the construction of the Campus Center, Old 77 will house the Mailroom and Bookstore on the lower level. (The dance studio and exercise room will be unavailable during this time.) 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 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.

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.

THOMPSON HOUSE, on the National Register of Historic Places, contains the offices of development and alumni relations and the Celebrity Series office.
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, database searching, the Curriculum Library, the College archives, and group study rooms.

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 PALINET. Nationally, the library is affiliated with the On-line Computer Library Center and the Lockheed/DIALOG Information System, which service libraries in many parts of the country by means of computerized transfer of information. The objective of each of these library organizations 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:

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<th>Endowment Fund</th>
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ACADEMIC 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 six public computer labs on campus: McElree and Math/CS labs in Hoyt Science Resources Center, Patterson Lab in Patterson Hall, McGill Lab in McGill Library, the Graphics Lab in Thompson-Clark Hall, and Economics and Business Lab in Old Main. In addition, students living in residence halls can connect appropriately equipped Intel-based PCs directly to the network via wall jacks in every student room. Off-campus students and staff can access the World Wide Web and e-mail through dial-up equipment.

Other campus resources include 16 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, CD-ROM indexes, and 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 Help Desk page gives instructions and information about campus computing resources and student PC requirements.

THE CULTURAL ARTIFACTS COLLECTION: The artifacts collection consists of approximately 800 items emanating from a variety of geographical areas. Approximately 50 percent of the artifacts are from Egypt and 30 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 65 percent are pre-Christian, mostly Pharoanic Egypt. About 25 percent date from the first millennium A.D., with the remainder from the second millennium A.D. The size of items in the collection ranges from a few centimeters to about two meters. Composition materials range from glass to stone, leather, raffia, metal (including precious metals), paper, wood and cloth. The items in the collection are gifts from alumni and friends of the College. Many of the items were donated by former missionaries to Egypt, the Sudan, China, and elsewhere. Artifacts are on exhibit in the first floor lobby, the second floor lobby and the Faculty Study of McGill Library 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: Research 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, 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

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. The Down Under, a nonalcoholic pub funded by Student Government Association, Parents Association and Westminster College, was opened in January 1989 in the basement.

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. Sodexo operates Duff and McGinness dining rooms, as well as the TUB Grille during construction of the Campus Center.

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 and Russell Dining Room, which is used for catered dining and other special events.

SHAW HALL, constructed of brick and stone in 1960, was named for Walter C. Shaw, a generous benefactor of the College. It provides rooms for 168 students and contains the Mrs. Walter C. Shaw Student Health Center and the Counseling Center.

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, soccer and track & field. In addition, there are football and soccer practice fields and a sand volleyball court. Intramural touch football and softball are played on a number of other fields located around campus.

SERVICE BUILDINGS

WALTON-MAYNE MEMORIAL UNION BUILDING, finished in 1958 and named for W.D. Walton and Jessie B. Mayne, is part of the new Campus Center complex and will remain closed until the Campus Center is completed.

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.
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 Down Under committee of the Student Government Association (SGA).

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.

RELIGIOUS LIFE

The 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 College Chaplain and his staff are coordinators of the planning and implementing of events to enhance the dialog 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 Christian college experience.

Worship is both a personal and community experience at Westminster. Under the direction of the College Chaplain, two weekday services and Sunday Vespers are held in Wallace Memorial Chapel. A special lecture series and an annual retreat are offered. Small-group training is available and small groups are encouraged as a way for students to grow in their faith. Through various student-led groups, coordinated by the College Chaplain, opportunities for Christian service are available both on and off campus.
The chapel programs are Christian in orientation, and 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 program.

It is the goal of the Office of the Chaplain that those who so desire may find the atmosphere, program and encouragement to mature in the Christian faith. This growth may be accomplished by commitment to Jesus Christ and His kingdom, regardless of a person’s denominational background.

THEATRE

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


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.

The *Scrawl* is the student literary magazine. Founded in 1939, all students are encouraged to submit fiction, poetry, or artwork to this publication. On occasion, alumni, staff and faculty are also requested to offer submissions.

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 16 performing groups from which to choose.
The Concert Choir, a select mixed ensemble of 40-45 students, performs on and off campus, and takes annual tours. This ensemble meets three times per week. The Chamber Singers is a select mixed ensemble of 12-14 students, which sings repertoire intended for smaller ensembles, such as madrigals, motets and vocal jazz. This ensemble meets two times per week. The Men’s Chorus and Women’s Chorus are two single-sex ensembles of 20-40 students performing on campus for Vesper services and other concerts. These choirs meet two times per week.

The Symphonic Band is an ensemble of 65-75 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. This ensemble meets two times per week. The Marching Band, which rehearses two times per week, 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, rehearses two hours per week, and is 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 students who rehearse once each week from late fall through the end of the Spring Semester.

The Westminster Orchestra, which rehearses two times per week, performs works from various periods at its two concerts each year.

Additional smaller ensembles include: Flute Choir, Woodwind Ensemble, Brass Ensemble, Percussion Ensemble, Opera Workshop, String Chamber Ensemble, Handbell Choir, and a musical pit orchestra.

Westminster supports its music activities with excellent physical facilities. Will W. Orr Auditorium, which seats 1,720, has a four-manual Moeller organ, and Wallace Memorial Chapel, site of the weekly Vesper services, contains a three-manual Moeller organ. 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 member of the National Collegiate Athletic Association (NCAA), the Eastern College Athletic Conference (ECAC), and the NCAA Division III affiliated 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, and volleyball. Club sports have included equestrian, ice hockey, rugby, and men’s volleyball.

**BROADCASTING**

Radio station WWNW operates in stereo at 88.9 MHz. In addition to playing pop-alternative music, the station offers a variety of news and sports. The station’s coverage of Westminster football and basketball airs on a multi-station Titan Radio Network.

Cable 9 television is available on three area cable systems reaching over 40,000 homes. Westminster cable television 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 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, career shadowing and regional activities are some of the opportunities offered to foster friendship among alumni and to provide forums for alumni service and education.

STUDENT SOCIETIES

Honorary and Professional Organizations

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

BETA BETA BETA’s Alpha Sigma chapter of this national biology fraternity was established at Westminster in 1948. Active membership requires sophomore standing, at least 12 biology semester hours with a 3.00 GPA, and an all-college GPA of 3.00. Associate membership requires the completion of four biology semester hours and enrollment for four more semester hours.

DELTA PHI ALPHA, a campus German honorary, was developed to further knowledge of the German language and the intellect and artistry of German-speaking countries. The group began its Gamma Tau chapter on March 15, 1960. Prerequisites include a 3.00 average in German courses and at least four semester hours at the 300 level.

ETA SIGMA PHI charted its Gamma Mu chapter in 1954 as the honor organization for the classics. Open to students who have completed eight semester hours in Greek or Latin with 4.00 averages, or 12 semester hours with a 3.00 average.

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 Pennsylvania Alpha chapter of this national mathematics fraternity was organized in 1950. The national organization was designed to further the interest in mathematics in schools that place their primary emphasis on undergraduate programs. Credit requirements include a 3.00 GPA, a 3.00 grade point average in math classes, 12 completed math semester hours (including MTH 251), and current enrollment in a further math class.

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 term 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, a national honor society for seniors, was established at Westminster in 1955, and recognizes senior students with leadership, scholarship and service skills. Membership prerequisites include a grade requirement and previous college leadership experience.

MU DELTA EPSILON, the Westminster religion honorary, was created to emphasize the importance of academic excellence in the discipline of religion. Prerequisites include 16 semester hours in religion with a 3.000 GPA, and an overall GPA of 3.000. The honorary was chartered at Westminster in 1964.

MU PHI EPSILON is an international professional music fraternity. Phi Omega chapter was established at Westminster 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 semester first-year student, and a major or minor in music.

OMICRON DELTA EPSILON, the national economics honor society, installed its Nu chapter at Westminster in 1968. Prerequisites include 16 semester hours in economics with a GPA of 3.000 and an overall GPA of 3.000.

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 term of leadership experience at Westminster College.

PHI ALPHA THETA is the national honor fraternity in history. Alpha Xi chapter was organized at Westminster in 1946. Eligibility for membership requires 16 semester hours in history, a 3.100 average or better in history, and an all-college average of at least 3.000.

PHI SIGMA TAU's chapter of the national honor society was initiated at Westminster College in 1966 with the aim of encouraging friendship among those who have displayed marked ability in philosophy classes, to popularize interest in philosophy among the general collegiate public, and to honor and expand academic excellence. The nationally affiliated organization includes such requirements as an overall 3.000 GPA, a 3.000 average in at least eight philosophy semester hours, and second-term sophomore standing.

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.

PI SIGMA ALPHABETA, national honor society in political science, established its Eta Omicron chapter at Westminster in 1976. Its purpose is to promote scholarship and to reward outstanding students for excellent achievements. Membership is extended to students who have an all-college average of 3.000 or better, a 3.250 political science GPA, and who have completed at least 12 graded semester hours in political science.

PI SIGMA PI, a local scholastic honorary, was founded in 1939 for the purpose of honoring superior students among the candidates for the B.A., B.S., and B.Mus. degrees. The requirements for membership are 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 activi-
ties. It also informs students about graduate school programs in psychology. An overall GPA of 3.000 with a 3.200 in psychology classes is required.

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

TAU PI PHI, national honor society in accounting, business, and economics, was installed at Westminster in 1984. It recognizes and honors academic achievement, promotes scholarship, and encourages ethical standards in business. Required for membership is a 3.200 GPA, a 3.200 in all accounting, business administration, and economics courses, and junior standing.

UPSILON PI EPSILON, national honor society in computer science, was established at Westminster in 1983. It requires of its members a 3.500 average in computer science courses and an overall GPA of 3.000. Students must complete at least 12 computer semester hours and at least eight support semester hours from among math and physics.

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, a national service fraternity, is open to all students. The Alpha Alpha Pi chapter was chartered at Westminster in 1981. Alpha Phi Omega, the nation’s largest fraternity with more than 600 chapters, is dedicated to leadership, friendship and service.

AMERICAN CHORAL DIRECTORS ASSOCIATION, founded in 2002, provides an incentive for students to become more committed to the art of choral conducting and to provide for learning opportunities outside of the formal classroom setting.

ARGO—See Student Publications, p. 19.

THE ASIAN CULTURE CLUB, established at Westminster in 1999, is a group whose mission is to create and foster Asian cultural awareness in the campus community. Membership is open to all students who are interested in the organization’s purposes and activities.

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 students.

THE CHEERLEADERS are elected through auditions. They participate primarily in the Titan football and basketball seasons, although they support all athletic events.

CHEMISTRY CLUB is open to students interested in chemistry. It formerly was the Student Affiliates of the American Chemical Society, established at Westminster in 1953.

CIRCLE K INTERNATIONAL, founded in 1998, provides the opportunity for leadership training in service, promotes good fellowship and high scholarship.

DANCE THEATRE, formed in 1978, is primarily a modern and jazz dance company. It holds lecture demonstrations and concerts. The company is open to all interested students.
EQUESTRIAN TEAM, formed in 1994, promotes participation in intercollegiate horse shows, promotes sportsmanship and develops horsemanship. Members must maintain a 2.000 GPA and take either an equestrian gym class or a riding test to evaluate riding skills.

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, plans and executes activities for first-year students in order to make the first days of college an easier experience. Students must interview for staff positions, have a 2.250 GPA, have previous experience with College organizations, and limited disciplinary action.

GOSPEL CHOIR, founded in 1993, gives students and faculty an opportunity to express themselves through songs of praise and worship. Through these songs they minister to others about God’s love for each and every one of us. The choir also hopes to bring about ethnical diversity and bridge gaps between denominations.

HABITAT FOR HUMANITY, established in 1989, provides students, faculty and administrators with opportunities to participate in community service projects.

HOLCAD—See Student Publications, p. 19.

ICE HOCKEY CLUB was formed in 2002 to further develop the skills of the game and to promote ideas of sportsmanship among the College community.

INTERFRATERNITY COUNCIL is the coordinating agency for the five local chapters of national fraternities. Each chapter is represented on the council by three members.

THE JUBILEE COMMITTEE was founded at Westminster in 1994 to assist in promotion and fundraising for the Jubilee and the R.S.V.P. conferences. Students assist on one of the subcommittees for the group. Membership is open to all Westminster students even if they do not attend either of the conferences.

MOCK CONVENTION COMMITTEE meets quadrennially to plan Westminster’s Mock National Convention, which has been held every fourth year since its formation in 1936, except for 1944. Westminster’s convention is one of the oldest in the nation.

THE NEWMAN CLUB is a club of Catholic culture and Catholic fellowship.

OUTDOOR AND CONSERVATION CLUB was created to unite those who enjoy archery, hunting, fishing, and shooting sports and other outdoor activities. NRA-certified instructors teach firearms safety and responsibility. Service projects are performed in conjunction with the Pennsylvania Game and Fish Commissions. Membership is open to all students.

PANHELLENIC ASSOCIATION, organized in 1924, is the coordinating body for the five national sororities and is composed of two representatives from each group. Among its functions is the compilation of rules governing sorority rush.

P.E.E.R.S. (Peers Educating and Encouraging Responsibility in Students) is a team of Westminster students who, under the auspices of the Student Health Center, present to the campus community programs and workshops that address a variety of health-related topics.
PA College Music Educators Association, formerly Music Educators National Conference, established its Student Chapter No. 180 at Westminster in 1955. Members are affiliated with the Pennsylvania Music Educators Association as well as with the national organization. Any music major is eligible for membership.

PUBLIC RELATIONS STUDENT SOCIETY OF AMERICA (PRSSA) comprises undergraduate and/or graduate students, regardless of race, color, creed, sex, or national origin, who are either public relations majors or minors of at least sophomore standing.

ROTARACT CLUB is an international service club that is open to the entire student body. It 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. 19.

THE SEEKERS COLLEGE FELLOWSHIP, founded in 1998, creates a fellowship based on God’s guidance through His word and prayer, which helps students grow in their faith by looking beyond themselves through building relationships and serving others.

SKI CLUB provides an opportunity to explore and pursue the sport of alpine skiing both on a recreational and advanced level. Proof of major medical insurance coverage is required.

SOCIETY OF PHYSICS STUDENTS is an organization to promote the educational activities of all students interested in physics. (See Sigma Pi Sigma, which is the honor society of this organization.)

SOCIOLOGY INTEREST GROUP, formed in 1975, sponsors activities for all students interested in this discipline.

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

SPEECH AND DEBATE TEAM is an intercollegiate competitive organization associated with the National Forensic Association, the American Forensic Association, and the forensic society, Delta Sigma Rho - Tau Kappa Alpha. Members travel to tournaments to compete in both individual events and Lincoln-Douglas Debate. The team also hosts an annual tournament on the premises and “Campus Challenge” debates with other schools in the region.

THE STUDENT ALUMNI ASSOCIATION (SAA) introduces undergraduates to the Alumni Association by involving students in alumni relations programs. SAA fosters alumni-student interaction, campus involvement and a lifelong relationship with Westminster College.

THE STUDENT-ATHLETE ADVISORY COMMITTEE comprises selected representatives from each of Westminster’s varsity sport teams. The purpose of the committee 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 stu-
Students interested in attending law school and pursuing a legal career. Membership is open to all students who have an interest in the legal profession and who wish to become better informed and more qualified for law school. The organization was chartered in 1998.

THE STUDENT WESTMINSTER ADMISSIONS TEAM (SWAT) began in the fall of 1988 to open communication between prospective students of the College and enrolled students. Prerequisites include a 2.500 GPA and preferably some leadership experience on the Westminster campus.

STUDENTS IN ACTION WHO VALUE THE ENVIRONMENT (SAVE) was founded in 1989 to raise consciousness about and improve the condition of the environment, and to promote a better understanding of the ethical and moral issues on a global scale. These issues include air and water purity, acid rain, forest preservation, recycling and animal rights. Open to all students.

STUDENTS IN FREE ENTERPRISE (SIFE) is a department club designed to provide students an opportunity to develop leadership, teamwork, and communication skills through learning and practicing principles of free enterprise. Market economics, business operation, and the attitudes and ethics required for success in the global market are topics of exploration. Membership is open to students of all majors.

VISA (VOLUNTEERS IN SERVICE AND ACTION) teams are under the direction of the Chapel assistant. These service teams consist of dedicated students who are willing to volunteer their time and energy to one or more needed programs in the area. Projects include tutoring programs, youth rehabilitation work, adopt-a-grandparent, church youth work, crisis hotlines, Big Brother/Big Sister, and more.

More information on each of these groups can be found in the back section of the Campus Activities Calendar.

Student Services

STUDENT AFFAIRS OFFICE

The central staff of the Office of Student Affairs consists of the Dean, two Assistant Deans, 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; Gospel Choir; student publications; Greek life; the Career Center; and public safety and security.

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 and service events and programs involving students, faculty and staff, both on and off campus. (See p. 18.)
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 and informational interviews with alumni are some of the available resources.

The internship coordinator assists students in arranging internships. An annual Internship Day offers students the opportunity to interview on campus with participating organizations. Students may participate in more than one internship during their college careers. (See p. 75.)

The community service graduation requirement is also coordinated by the Career Center. (See p. 71.)

The Career Center’s home page (www.westminster.edu/student/career) provides information on professional employment opportunities, internships, community service, job fairs, Internet links, dates for mock interviews, and on-campus recruiting schedules.

Career Center staff offers 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 day set aside early in the year when seniors receive instruction on writing a résumé and cover letter, interviewing techniques, networking, and using technology in the job search.

On-campus recruiting and local job fairs provide opportunities for seniors 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 well-being of students is important to the College. To meet the counseling needs of students, Westminster provides professional psychological care on campus. A counselor is available to all students during the week and is located in the Student Health Center. Counseling services provide emotional support and therapy for a variety of personal concerns including, but not limited to, depression, anxiety, relationships, homesickness, self-esteem, time management, alcohol, and family problems. Also provided are educational programs and support groups. Westminster has a referral system to several special and long-term counseling services.
OFFICE OF THE DIVERSITY COORDINATOR

The Office of the Diversity Coordinator 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 coordinator’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. 33.

STUDENT HEALTH CENTER

The Student Health Center, located in Shaw Residence 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 Office of Student Affairs.

**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, in addition to a section which details each organization on campus. 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 the Registrar 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. Sodexho does provide special diets and will make every effort to accommodate student needs. Appeals are to be directed to the Office of Student Affairs.

**MOTOR VEHICLES**

Any student may bring a car or motorcycle to Westminster, but must register it at the Office of Student Affairs 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.
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 Dean of Admissions. 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. 36.)

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

Requirements for Admission

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

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

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

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

**Application Fee and Reservation Deposit (2002-2003)**

A nonrefundable application fee of $35 should accompany the application for admission.

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 program. 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 C+ (2.500) or better, and no single grade lower than C- may be accepted for Westminster credit. Westminster only accepts credits taken at regionally-accredited colleges and universities.

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 who may take classes during the day, evening, or a combination of both. This segment of the Westminster College community is referred to as STARS (Starting, Transferring, and Returning Students).

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. A majority of students choose the accelerated evening program that offers the ability to custom design schedules by taking 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) can be completed entirely through evening course work and 40 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 taken at another accredited institution, a tentative assessment of transferable credits is available.

The High School/College Dual Enrollment Program offers to qualifying high school students the opportunity to prepare for the future while attending high school. Inter-
ested 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 Community College, Penn State University-Shenango and Allegheny Community College. The College accepts credit by examination from CLEP, ACT-PEP, Advanced Placement and the armed services.

The Lifelong Learning Catalog lists courses and complete details about the program for Fall and Spring semesters. Separate course listings are available for the Summer Session. Both publications are available in the Office of Continuing Education and Lifelong Learning. Specific questions may be addressed to the director of the 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 permanent teacher certification, 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 Dean of Admissions, 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) or the Michigan Test of English Proficiency is required of all international applicants. The TOEFL score required for admission is 500 or above. The Michigan Test score required for admission is 80 or above. 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 or Michigan Test.

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 nonprofit institution. The basic charges that students pay (tuition, fees, room and board) do not cover the full cost of a Westminster education. For each $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 (2002-2003):

<table>
<thead>
<tr>
<th></th>
<th>Semester</th>
<th>Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tuition (12–20 semester hours)</td>
<td>$9,050.00</td>
<td>$18,100.00</td>
</tr>
<tr>
<td>Room (double occupancy)</td>
<td>1,430.00</td>
<td>2,860.00</td>
</tr>
<tr>
<td>Board (195 meals per semester)</td>
<td>1,365.00</td>
<td>2,730.00</td>
</tr>
<tr>
<td>Student Activity Fee</td>
<td>270.00</td>
<td>540.00</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$12,115.00</strong></td>
<td><strong>$24,230.00</strong></td>
</tr>
</tbody>
</table>

Optional Meal Plans for Fall and Spring semesters:
- 175 meals per semester $1,235.00 $2,470.00
- 135 meals per semester $1,100.00 $2,200.00

The full-time tuition charge for one semester allows students to enroll in 12-20 semester hours of course work (but note that an academic load above 19 semester hours must be approved by the Dean of the College). 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.

Students who enroll in more than 20 semester hours of tuition-incurring courses will be billed at the semester-hour rate for each tuition-incurring semester hour above 20.

Information Technology Fee

All students enrolled in a course for credit will be charged a mandatory $10 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) ........................................ $565
- Audit fee per semester hour ............................................................................. $34
- Damage and loss deposit (Reservation Deposit) .............................................. $200
- Late registration fee ......................................................................................... $10
- 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 ........................................................................................................ $30
National Teacher’s Exam .................................................................................................. $145 to $195
Transcripts ...................................................................................................................... $3
Music fee for voice or instrument study
  beyond the requirements of the standard curriculum, per weekly half-hour lesson ................................................................. $275
Student Teaching Fee .................................................................................................... $160
Late Payment Fee .......................................................................................................... $40 or 1% per month on the unpaid balance

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 2002. 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 $270 per semester. This pays for admission to athletic events, theater 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 $95 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.

The College does not accept credit cards for payment of student accounts. Credit cards are, however, accepted at the Bookstore for the purchase of textbooks and supplies.

**Refunds**

**WITHDRAWAL FROM THE COLLEGE:** College fees are not returnable to students unless they withdraw from the College because of illness or reasons entirely beyond their control. The process of withdrawing 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 refund is applied to tuition, room and board, and certain other charges assessed by the College. An administrative fee of 5 percent of the 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.

FOOD SERVICE: Students who are on a board plan and are eligible to receive credit for missed meals will receive a refund for the cost of the meals missed.

Credit will be given for the following:
1. Medical leave of absence in excess of two weeks as verified by a physician.
2. Class trips, where participation is required, for a period of longer than three consecutive days.
3. Meals missed for a scheduled recurring off-campus academic requirement when advance notice is given.

Arrangements have been made with Sodexho for students with off-campus academic requirements to eat breakfast in the dining halls before the scheduled operating time so that they can reach their positions on time.

No credit will be given when dining halls are closed for regularly scheduled vacation periods. However, student teachers who teach through a regularly scheduled vacation period may receive credit for an equal amount of vacation time provided by the Department of Education if they take the vacation away from campus and do not eat in the dining halls.

ROOM: Except for the pro-rata refund for withdrawal from school, room rent 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. 31.

TUITION REFUND PLAN: This elective insurance plan provided by A.W.G. Dewar, Inc., substantially increases the refund adjustments provided by the College’s refund policy. Students will receive a 100 percent return of term charges in the event of a withdrawal due to medical-physical illness or accident (60 percent for medical-psychological withdrawals). Enrollment forms are mailed to students in mid-summer. Applications must be received by the opening day of classes. The plan provides coverage for tuition, activity fee, room and board charges.

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: Trustee’s, 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 2001-2002, 88 percent of the student body qualified for some form of financial aid. More than $21 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.

**Trustee’s Scholarship**

To be eligible for this $10,000 scholarship, a student must present a minimum SAT combined score of 1200, or an ACT composite of 27 or better and a minimum grade point average in college preparatory subjects of 3.700. The grade point average is calculated by Westminster College based on the following preparatory subjects from grades 9 through 12: English, foreign languages, social studies, mathematics, and laboratory science.

**President’s Scholarship**

This $7,500 scholarship is awarded to students who present a 4.000 GPA in the college preparatory subjects listed above.

**Tower Scholarship**

This $7,000 scholarship is awarded to students who present a 3.500 to 3.990 GPA in the college preparatory subjects listed above.

**Westminster Scholarship**

This $6,000 per year scholarship is awarded to students who present a 3.000 to 3.490 GPA in the college preparatory subjects listed above.

**Honor Scholarship**

A limited number of scholarships are awarded to high school students with excellent academic records without consideration of financial need. The scholarship is renewable if a cumulative grade point average of at least 2.900 is maintained.

**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. For the grant to be renewed the recipient
must maintain a cumulative grade point average of 2.900 and continue to need financial assistance.

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. Students who are eligible to continue their academic work at Westminster and are maintaining satisfactory progress may be considered for renewal of this award, provided that there is financial need. Only those who are at least half-time students are considered.

STATE LOAN FUNDS: Several states have created higher education assistance corporations which grant loans to students needing help with college expenses. In addition to Pennsylvania, nearby states which sponsor student loan programs are Connecticut, Massachusetts, New Hampshire, New Jersey, New York and Ohio. Additional information may be obtained from the Director of Financial Aid or the student’s hometown bank.
COLLEGE LOAN FUNDS:

Dr. Samuel Elliott Loan Fund  Mrs. Don C. Lindley Loan Fund
John Alldred Loan Fund  McFarland Memorial Loan Fund
Mrs. M. J. Prentiss Loan Fund Fund  Queen M. and John R. Turner Loan Fund
John and Anna Maria Logan  Bremer Foundation Loan Fund
Loan Fund  Thomas Fergus Smiley Loan Fund
Margaret Y. Gettemy Loan Fund

Work Opportunities

Because the devotion of too much time to part-time employment often prevents students from giving their best efforts to studies and worthwhile student activities, such employment is recommended only when financial help is absolutely necessary.

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 federal portion of these funds may be available for off-campus and summer employment of Westminster students. 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. Jobs are also available on campus that are not under this program. 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.
Application Procedures

Most financial aid for first-year students is granted on the basis of the FAFSA. This form may be obtained from a high school counselor.

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.

Endowed Scholarships

The following endowed funds have been established through contributions from alumni and friends of the College for the express purpose of providing supplemental sources of financial aid to students who meet the criteria set by the donors. Application for these scholarships should be made to the Director of Financial Aid.

ANONYMOUS SCHOLARSHIPS. These endowed scholarships were established in 1990 for students of high academic ability who have substantial financial need.

HARRIET BOOZELL ABBOTT SCHOLARSHIP FUND. This fund was established in 1987 in memory of Mrs. Abbott ’45 by her daughter, Judy Wasko. Income from the fund is used to aid a music student with financial need.

DR. AND MRS. JOHN G. ALBRIGHT MEMORIAL SCHOLARSHIP FUND. The income from a bequest in 1975 from the estate of Dr. and Mrs. John G. Albright is used for scholarships for students majoring in physics, chemistry or mathematics. Dr. Albright was visiting professor of physics at Westminster from 1955-65.

JOHN ALLDRED SCHOLARSHIP FUND. The income from a bequest in 1963 from the estate of John Alldred of Pittsburgh, Pa., is used to assist students “with ability and character who have financial need.”

MARY MARGARET ALLEN SCHOLARSHIP FUND. The income from this fund is used to aid students with financial need. It was established in 1979 by Miss Allen of Santa Fe, N.M., as part of the Golden Anniversary gift of her 1929 class.

DR. JOSEPH GALBRAITH ALTER SCHOLARSHIP FUND. This fund was established in 1991 in memory of Dr. Alter ’48 by bequest of Verna Frances Alter, his wife. The income provides support to the College’s student financial aid program for otherwise unfunded costs of college-named scholarship awards as designated by the Board of Trustees.

ALUMNI SCHOLARSHIP FUND. This fund, created in 1981 by gifts from alumni, provides income for scholarships.

BAYARD AMELIA SCHOLARSHIP FUND. This endowed scholarship was established in 1999 by a planned gift from Mr. Bayard Amelia, a friend of Westminster College. The income from this fund will be used on an annual basis for a student based on financial need. The student is to be determined by the Director of Financial Aid.

THE CAROLYN DINES ARFKEN SCHOLARSHIP FUND. This endowed fund was established in 1998 by George B. Arfken in memory of his wife, Carolyn Dines Arfken, a 1945 graduate of the College. The income from the fund is awarded annually to a student or students on the basis of academic achievement. The recipient will be chosen by the Director of Financial Aid.

CLYDE A. ARMSTRONG MEMORIAL SCHOLARSHIP FUND. This fund was established in 1976 by gifts from Mr. Armstrong’s family and friends. A member of the Class of 1919,
he served Westminster with distinction as a member of the College’s Board of Trustees for 32 years, including seven as president of the Board. He also originated the Annual Giving Fund of the Alumni Association. The income from the memorial fund is to be used for a scholarship to be awarded to a scholar-athlete.

**ATLANTIC AVENUE UNITED PRESBYTERIAN CHURCH SCHOLARSHIP.** This fund was established in 1986 to aid academically deserving or financially needy students, with preference given to students from the McKeesport area.

**ALICE SLUITER AULD MEMORIAL SCHOLARSHIP.** John P. Auld established this scholarship in 1957 as a memorial to his wife. Preference is given to freshmen from Hampton, Shaler, Richland, or North Allegheny high schools. The recipient must demonstrate need and academic ability.

**SUSAN ANNA DICKSON BARCUS MEMORIAL SCHOLARSHIP FUND.** This fund was established in 1989 through a bequest from the estate of Miriam Barcus Brooks in memory of her mother, Susan Anna Dickson Barcus, Westminster Class of 1887.

**CARRIE GRAHAM BAUER SCHOLARSHIP FUND.** The income from a trust created in 1975 by Mrs. Bauer is to be used to provide scholarships for students from Allegheny County.

**ELIZABETH BAYER MEMORIAL FUND.** To aid sincere and dedicated persons in pursuing or furthering their training in the teaching profession by scholarships and/or loans, this fund was created in 1966 by bequest from the estate of Mrs. Elizabeth Bayer of Butler, Pa.

**ANNA BELL MEMORIAL SCHOLARSHIP.** A. Edward Bell, Franklin, Pa., established this scholarship in 1946 in memory of his sister, Anna Bell.

**JOHN A. BELL SCHOLARSHIP.** This fund was established in the 1920s by Mr. Bell, banker and businessman from Carnegie, Pa. It provides scholarships for students, preferably from the Carnegie area, recommended by the Christ United Presbyterian Church of Carnégie.

**ELIZABETH J. BENSON SCHOLARSHIP FUND.** This fund was established in 1997 by Elizabeth J. Benson ’29. Income from this fund is awarded annually to deserving students demonstrating financial need. The recipient will be determined by the Director of Financial Aid.

**WILLIAM BERLIN SCHOLARSHIP FUND.** This fund was established in 1996 by Mr. George Berlin in memory of his father, Mr. William Berlin, who served as a trustee of Westminster College from 1961 to 1969. The scholarship(s) will be awarded annually to students who plan to enter the Christian ministry or pursue a religious vocation. These students must also have maintained high standards of scholarship, been actively involved in community service, and demonstrate some form of special need. The determination of special need will be made by the Director of Financial Aid, and may include such factors as unusual circumstances, which contribute to the hardship and family income. If there are no candidates in a given year who meet all of these criteria, the President of the College and the Dean of Admissions will award the scholarship to a student who best exemplifies its general ideas of academic achievement, a commitment to service and some form of special need.

**FRANCIS A. BONADIO SCHOLARSHIP FUND.** This fund was established in 1999 through contributions from the Community Scholarship Benefit “An Evening of Music” which honored Mr. Bonadio, a New Castle resident, businessman, and philanthropist. Income from the fund provides scholarship for Lawrence and/or Mercer County students selected on the basis of scholarship and financial aid. The recipient is to be determined by the Director of Financial Aid.

**WILSON M. BOTSFORD SCHOLARSHIP FUND.** This fund was established in 1980 in honor of Mr. Botsford, a resident of Carnegie, Pa., on the Golden Anniversary of his graduation from Westminster by his classmates. Income from the fund will be awarded annually to deserving students with financial need.
ELSIE BRAUN ACADEMIC ASSISTANCE FUND. This fund is in memory of Elsie Braun ’27, who was a teacher and counselor at Moon High School in Coraopolis, Pa. It was established in 1990 through a bequest from Elmer E. Braun.

EDITH PETRIE BROWN SCHOLARSHIP FUND. This fund, established by bequest in 1985, is unrestricted.

EDWARD N. BROWN MEMORIAL SCHOLARSHIP. Family members established this fund in 1988 as a memorial to Edward N. Brown. Mr. Brown was a 1927 graduate who went on to teach chemistry at Indiana University of Pennsylvania. The income is awarded annually to a chemistry student with demonstrated financial need.

LILLIAN R. BROWN SCHOLARSHIP FUND. Established in 1992 by her estate, this scholarship is unrestricted.

THE PAUL E. BROWN MEMORIAL SCHOLARSHIP was established in 1985 by his family, friends and former students. Mr. Brown taught mathematics at Westminster from 1947 until his retirement in 1976. Income from the fund is awarded annually to a junior on the basis of merit and academic achievement in mathematics.

JOHN AND CLARA BRUHN MEMORIAL SCHOLARSHIP FUND. This fund was established in 1975 by Caroline Bruhn ’26, in memory of her parents. The income from this fund is used to aid students with creative ability and financial need. First preference is given to students majoring in art. Secondary preference is to be given to art minors, or theatre, music or public relations majors.

THE FRED L. & JUNE McCALL BURNS & FAMILY SCHOLARSHIP. On behalf of Dr. Max H. Burns ’56, a scholarship in memory of his parents was established in 1999. The scholarship will be awarded to students in the academic fields of music, drama, or mathematics, or in the education fields of music, drama, or mathematics. The recipient should be selected by a committee comprised of the chair of these departments and the family member representing the family of Fred L. Burns.

ALMA PETERS BURRY MEMORIAL SCHOLARSHIP FUND. This scholarship fund, established in May 2000, is in honor and memory of Alma Peters Burry by Dean and Carole Burry Forsythe ’62 ’63 and Karen Forsythe ’87 for her dedication to her faith, family and higher education. It is designated for a female elementary education major from Lawrence County of the Presbyterian Church U.S.A. (first choice) or other Christian denominations who demonstrates financial need from a single-parent family. The student(s) is to be selected by the chair of the Department of Education and the Director of Financial Aid.

THE JOHN S. CAMPBELL JR. AND GERTRUDE T. CAMPBELL EDUCATIONAL TRUST. This fund was established in 1980 by bequest from Mrs. Campbell. Income from this fund is used to aid men or women students who are United States citizens and who are residents of Butler County, Pa. Selection of recipients is on the basis of scholastic ability, general aptitude, and financial need.

REX W. CAMPBELL MEMORIAL ROTARY SCHOLARSHIP FUND. This scholarship was established in 2000 by the New Wilmington Rotary Club in memory of the life and work of Rex W. Campbell ’75, a Rotarian and community leader. Income from this fund will provide scholarship aid for students from the Northwest Pennsylvania Rotary District. Preference will be given to students who have financial need and who best exemplify the ideals of Rotary. This will be based on school and community activities as well as personal recommendations and will be determined by the Director of Financial Aid.

C. RUDOLPH AND EVELYN SWANSON CARLIN SCHOLARSHIP FUND. Established in 1990, this scholarship is awarded to a needy student and may be awarded to the same student for four years. Determination is made by the Office of Financial Aid.

WILLIAM G. CARSON SCHOLARSHIP FUND. This scholarship fund was established in 1997 in memory of William G. “Pinky” Carson ’37 by his family and friends. It is to be
made available to a student from first preference Lawrence and/or Mercer counties, second preference Pennsylvania. He/she must be in good academic standing (3.000 GPA), with special consideration given to students demonstrating financial need. The award is administered by the Director of Financial Aid and selection of the recipient confirmed with the chair of the appropriate department.

THE CLASS OF 1928 SCHOLARSHIP FUND. Established in 1981, it is for undesignated scholarships in memory of Dr. W. Donald McClure.

THE CLASS OF 1929 SCHOLARSHIP FUND. Established in 1981, it is for undesignated scholarships.

THE CLASS OF 1931 SCHOLARSHIP FUND. Established in 1981, it is for undesignated scholarships.

THE CLASS OF 1935 SCHOLARSHIP FUND. Established in 1985, the fund provides unrestricted scholarships.

THE CLASS OF 1940 ACADEMIC ASSISTANCE FUND. Established in 1990, the fund is for undesignated scholarships.

THE CLASS OF 1942 SCHOLARSHIP FUND. Established in 1992 by the 50th Reunion Class. This scholarship has no restrictions and is awarded at the discretion of the Director of Financial Aid.

THE CLASS OF 1945 ENDOWED SCHOLARSHIP FUND. Established in 1995, the fund provides unrestricted scholarships.

THE CLASS OF 1946 SCHOLARSHIP FUND. Established in 1996 by the 50th Reunion Class. This scholarship will be awarded annually to a student on the basis of academic achievement. The recipient will be selected by the Director of Financial Aid.

THE CLASS OF 1947 SCHOLARSHIP FUND. Established in 1997 by the 50th Reunion Class. This scholarship has no restrictions and is awarded at the discretion of the Director of Financial Aid.

THE CLASS OF 1948 SCHOLARSHIP FUND. Established in 1998 by the 50th Reunion Class. This scholarship has no restrictions and is awarded at the discretion of the Director of Financial Aid.

THE CLASS OF 1950 SCHOLARSHIP FUND. Established in 2000 by the Class of 1950 in recognition of its 50th reunion celebration. This scholarship has no restrictions and is awarded at the discretion of the Director of Financial Aid.

THE CLASS OF 1951 SCHOLARSHIP FUND. This fund was established in October 2001 in honor of the 50th reunion celebration for the Class of 1951, by members of the class. The earnings from this endowed fund are to be given to students based on financial need at the discretion of the Director of Financial Aid.

THE CLASS OF 1976 SCHOLARSHIP FUND. Established in 1982, it provides aid, based on financial need, to entering first-year students in the top 10 percent of their high school classes.

THE CLASS OF 1979 SCHOLARSHIP FUND. Established in 1984, this fund annually provides a scholarship for an entering first-year student.

THE CLASS OF 1980 SCHOLARSHIP FUND. Established in 1985, this fund is unrestricted.

THE CLASS OF 1981 SCHOLARSHIP FUND. Established in 1986, it is unrestricted.

GEORGE B. CLEMENS MEMORIAL SCHOLARSHIP FUND. This fund was established in 1979 by former students and friends of Dr. Clemens, professor of French at Westminster from 1962-64 and 1966-77. Income from the fund is awarded annually to students of foreign languages.
CLARA E. COCKERILLE MEMORIAL SCHOLARSHIP FUND. This fund was established in 1976 by former students and friends of Dr. Cockerille. A master teacher and nationally recognized educator, she was professor of education at Westminster from 1960-74. The income provides scholarships to promising students preparing for careers in teaching.

CHARLES E. AND HARRIETTE R. COCHRAN SCHOLARSHIP FUND. This fund was established in 1996 by Harriette Robinson Cochran ’33 and her late husband, Charles E. Cochran ’33, in appreciation for their educational opportunities at Westminster College. The fund will provide a scholarship each year to a first-year student with financial need. The recipient will be assured of assistance throughout his or her years at Westminster College provided a 2.500 cumulative average is maintained.

M. EARLE COLLINS MEMORIAL SCHOLARSHIP FUND. This unrestricted fund was established in 1981 by Mary Dixon Collins, family and friends. Dr. Collins was president of Tarkio and Missouri Valley colleges and a good friend of Westminster.

JAMES CORRY RELIGION SCHOLARSHIP FUND. This scholarship will be awarded annually to the tuition of a senior majoring in religion or Christian education who has demonstrated commitment to a church-related vocation. Awarded primarily on the basis of financial need, preference will be given to the child of an ordained minister. Application should be made during the junior year by applicant with a minimum GPA of 3.000.

DR. DANIEL G. CROZIER JR., MUSIC SCHOLARSHIP FUND. This fund was established in 1998 by the McFeely-Rogers Foundation to honor Dr. Daniel G. Crozier Jr. ’87. Income from this fund supports a renewable annual scholarship for a music student with financial need from the Latrobe area, Westmoreland County, or southwest/western Pennsylvania (respectively).

ERWIN CUMMINS MEMORIAL FUND. This fund was established in 1974 by a bequest of Mrs. Lena Dodds Littell in memory of her brother-in-law, Judge Erwin Cummins. The income is to be applied toward scholarships for young men attending the College and preparing for the Gospel ministry or for the mission field.

ANNA THOMPSON DAVIS SCHOLARSHIP. Established in 1992 by the estate of Mrs. Davis to benefit students majoring in education.

HELEN TOWNER DAVISON MEMORIAL SCHOLARSHIP FUND. This fund was established in 1980 by her husband, William B. Davison, and sons, William B. Davison II ’62 and Robert V. Davison, in her memory. Mrs. Davison was a 1936 Westminster alumna. This fund annually assists students with ability, character and financial need.

WILLIAM B. DAVISON II SCHOLARSHIP FUND. This fund was established in 1981 by a bequest from William B. Davison in honor of his son, a member of the Westminster Class of 1962. This fund aids students with ability, character and financial need, excluding athletic assistance.

H. DEWEY DEWITT SCHOLARSHIP FUND. Established in 1993 by family, friends, and colleagues in honor of Professor Emeritus H. Dewey DeWitt, who taught chemistry at Westminster from 1956 until his retirement in 1993. The recipient should be a junior or senior student who has performed well in chemistry. Financial need is not necessarily a consideration. Selection of the recipient will be at the discretion of the chemistry department.

MR. AND MRS. ANDREW M. DODDS MEMORIAL SCHOLARSHIP FUND. This fund was established in 1976 by a bequest from Mr. and Mrs. Dodds of New Castle, Pa. The income provides scholarships for students who demonstrate scholastic ability and have financial need. Recipients are selected by the Student Aid Committee. The late Mr. and Mrs. Dodds were lifelong residents of New Castle, where he served as county controller of Lawrence County for 27 years.
THE EBERLY FAMILY SCHOLARSHIP FUND. Established in 1992, by the Eberly Foundation, recipient(s) will demonstrate superior academic achievement, good moral character, financial need, and reside within the geographic preference area defined in the following order of priority: Fayette, Greene, Washington and Westmoreland counties within Pennsylvania; and then other counties within Pennsylvania and West Virginia; and thereafter students from any other state of the U.S.A. First preference, however, shall be given to those persons whose principal residence is in Fayette County, Pa.

THE EDUCATIONAL FUND OF THE CLASS OF 1927, GEORGE F. BOLINGER, DONOR. This fund was established in 1998 by the estate of George F. Bolinger. The income from the fund is to be used for scholarship purposes for needy and deserving students. The decision shall be made by the Director of Financial Aid.

J. SCOTT EILER SCHOLARSHIP FUND. This fund was created in 1963 by a bequest from the estate of Mrs. Mildred E. Briggs of Ashaway, R.I., as a memorial to her brother.

G. ROSS ELLIS MEMORIAL SCHOLARSHIP FUND. Family members and friends established this fund in 1991 in memory of G. Ross Ellis. From 1930 until his retirement in 1975, Mr. Ellis, a 1929 graduate, served Westminster first as a teacher of business and accounting, later as business manager and treasurer. Income from this fund is awarded annually to assist students with financial need.

FRANK EMMANUEL MEMORIAL FOOTBALL FUND. Established in 1992 by friends and family. Provides supplemental support for equipment and special services to the varsity football program.

THE PETER L. EVANOFF MEMORIAL SCHOLARSHIP. This fund was established in 1984 by members of his family and friends. Mr. Evanoff, a 1942 graduate of the College, was a Navy pilot in WWII. He was shot down over Taiwan on Oct. 13, 1944, after having participated in 42 combat missions. He was decorated with the Distinguished Flying Cross and several Gold Stars. The scholarship each year is awarded to a student from Erie County, Pa.

SAMUEL A. AND JANICE C. FARMERIE EDUCATION SCHOLARSHIP. This fund, established in 1997, is for an education major or minor. At the discretion of the Department of Education and the Office of Financial Aid, one or two students will receive the funds, depending on the amount available, based on need. The recipient(s) should be a sophomore or junior with a 3.000 GPA.

JAMES M. FERGUSON MEMORIAL SCHOLARSHIP. This scholarship, established in 1957, honors James M. Ferguson, president of the Board of Trustees, 1949-1957. The fund annually provides assistance to one or more students who have made an outstanding contribution to the College.

RUSSELL FORBES MEMORIAL FUND. This fund was established in 1958 by friends of Russell L. Forbes, a Westminster alumnus of 1918. The income is used each year to provide a loan to a student majoring in political science.

JOHN H. FORRY MEMORIAL SCHOLARSHIP FUND. This fund was established in 1979 as a memorial to Dr. Forry by his wife, Kathryn Kuhns Forry of York, Pa. Dr. Forry joined the Westminster faculty in 1946 and became Dean of the College and professor of English in 1953. After retiring from the deanship in 1961, he rejoined the English faculty until his death in 1965. Income from the fund is awarded annually to junior or senior English majors on the basis of merit and academic achievement.

FOWLER-LIDDLE MEMORIAL SCHOLARSHIP. The recipient must be a graduate of Canfield High School or a high school located in Canfield, Ohio. First preference will be given to the student who has the highest average grades during the four years of high school. In the event that two or more students are deemed equally qualified, then the trustee will select the recipient by lot. The financial assistance will be for tuition, fees, books, room and board, as well as other incidental expenses deemed appropriate by the trustee. The recipient...
will be assured of assistance for four consecutive years provided he/she maintains good academic standing.

THE WILLIAM B. AND BERYL N. FOX SCHOLARSHIP FUND. This fund was established in 1996 by their children and friends as a memorial of their 60th wedding anniversary. The income from the fund is to be awarded annually to a deserving student from Lawrence County.

NATHAN & E. LUCILE BEERBOWER FREY SCHOLARSHIP FUND. This scholarship fund was established in 2001 from Nathan and E. Lucile Beerbower Frey ’26, deceased 1994 and 2001, respectively. E. Lucile Beerbower Frey graduated from Westminster College in 1926 and served on the College faculty in the department of biology from 1947-1970. This scholarship fund is to benefit a junior or senior biology major with a 3.000 grade point average. The recipient(s) is to be determined by the chair of the Department of Biology and the Director of Financial Aid.

BETTY SHAW GAMBLE SCHOLARSHIP. Income from this fund, established in 1986, is awarded to students majoring in art, art history, or nursing.

MARY STEWART GLENN SCHOLARSHIP FUND. This fund was established in 1996 to honor the memory of her father, L. E. Stewart ’05 and her nephew, Joe Stewart ’63, and their accomplishments in track at Westminster College. Recipients will demonstrate financial need, involvement in extracurricular activities and above average academic ability.

THE SUE ANN HALCHIN MEMORIAL SCHOLARSHIP. This fund was established in 1974 in memory of Miss Halchin, a member of the Class of 1976, by her family, school groups and friends. The income is awarded annually to a deserving student, with preference given to graduates of Punxsutawney High School.

THE JOHN C. HANLEY SPEECH SCHOLARSHIP. The income from a gift made in 1953 in honor of the Rev. John Cheaney Hanley, D.D., is awarded to the sophomore student who demonstrates excellence in an annual competition for speeches which relate Christian faith to contemporary culture.

HARPER MEMORIAL SCHOLARSHIP. The Harper Memorial Scholarship, established by Percy Harper and Mary Rahiser Harper in 1963 as a memorial to Mrs. Mary Ramsey Harper and her three children, Ruth, Howard and Alan, provides scholarship aid for qualified students. Preference is given to students from Zelienople, Pa.

MARY RAHISER HARPER SCHOLARSHIP. The Mary Rahiser Harper Scholarship, established in 1965 by Percy V. Harper in memory of his wife, provides scholarship aid for students majoring in music.

THE FRANK R. HAYS MEMORIAL SCHOLARSHIP FUND. It was established in 1978 by bequest from Mr. Hays, who was the founder of Hays Baking Co. of Oil City, Pa. Mr. Hays was an active Presbyterian layman who believed in supporting church-related higher education.

HEARST ENDOWED SCHOLARSHIP FUND FOR UNDERSERVED RURAL STUDENTS. This fund was established in 1999 by the William Randolph Hearst Foundation of New York. It provides awards to traditional undergraduate students and adult students enrolled in the Lifelong Learning Program with high financial need from rural Pennsylvania counties. Recipients must maintain a B average while making satisfactory progress toward a degree, be good campus citizens, and intend to reside permanently in the United States following the completion of their studies. Awards will be made by the Director of Financial Aid in consultation with the Director of Continuing Education and Lifelong Learning.

PATRICIA AGNEW HODGE MUSIC SCHOLARSHIP. The fund, established in 1998 by her husband, Gerald B. Hodge, is in memory of Patricia Agnew Hodge and is awarded as a merit scholarship to the music student from the Greenville, Reynolds, and Jamestown school districts with the highest GPA. Conditions for scholarship renewal require that the recipient maintain a GPA of 3.000 and remain enrolled as a music or music education major. Determination will be made by the Director of Financial Aid.
A. REED HOFFMASTER M.D. MEMORIAL SCHOLARSHIP FUND. This fund was established in 1995 by gifts from Dr. Hoffmaster’s family and friends. Income from the fund is awarded annually to provide aid to academically deserving and financially needy pre-med students during their sophomore or junior year. First preference is given to graduates from Poland High School; if none are eligible, the award may be offered to graduates from Mahoning or Trumbull County. Second preference would be given to students from Lawrence or Mercer County following the same criteria.

IRVINE MEMORIAL SCHOLARSHIP FUND. This scholarship, established in 1975 by Mary Ann Irvine Klussmann ’64, is made in memory of her parents, Mr. & Mrs. Dallas S. Irvine. The award is made annually to a first-year music major on the basis of talent and financial need as determined by the Director of Financial Aid and the chair of the Department of Music.

THE DR. J. Y. JACKSON, IVA M. JACKSON AND MARY N. JACKSON SCHOLARSHIP FUND. Established in memory of Dr. J. Y. Jackson and Iva M. Jackson and in honor of Mary N. Jackson in order to provide annual assistance to a student with financial need who intends to enter a church-related vocation and who maintains at least a 3.000 GPA.

THE WILLIAM RUTHERFORD JAMISON AND JANE MEHAFFEY JAMISON SCHOLARSHIP FUND. It was established in 1983 by bequest from the estates of Anna Marie and Sylvia G. Jamison, both graduates of Westminster. It aids students who have financial need and who plan to enter careers in the ministry, missionary, educational or medical fields.

THE ARTHUR C. AND ELIZABETH KELLEY MEMORIAL SCHOLARSHIP FUND. Established in 1983, it helps recipients selected by the Office of Financial Aid.

EVA W. KELSO SCHOLARSHIP. Income from this fund, established in 1940, is used to assist worthy young men and women. The scholarship was created by a gift from John C. Kelso, Canonsburg, Pa., in memory of his wife.

LEONA KLUMPH KENNEDY ’52 SCHOLARSHIP FUND. This endowed fund was established in 2002 by a bequest from Leona Klumph Kennedy ’52. The income is to be used for scholarships for deserving, needy students at the discretion of the Director of Financial Aid.

PAUL KRAKOWSKI SCHOLARSHIP FUND. This fund was established in 1997 by Paul Krakowski ’45. The income will be awarded to a first-year minority student who aspires to a career in written communications and who has an interest in writing for the print media. The grant will be awarded based on scholarship and financial need. The recipient is to be determined by the Director of Financial Aid, a communication studies faculty member and the director of multicultural affairs.

JUNE E. KREILING MEMORIAL SCHOLARSHIP FUND. This unrestricted fund was established in 1988 by bequest from Florence E. Vincent as a memorial to her daughter, June E. Kreiling.

THE EMANUEL KRUEGER MEMORIAL SCHOLARSHIP FUND. This fund was established in 1979 in honor of Mr. Krueger on the Golden Anniversary of his graduation from Westminster by his wife, Mary, and their children, Diane and Keith. Income from the fund is used to aid students with financial need.

THE ROBERT E. AND JANE S. LAUTERBACH ACADEMIC SCHOLARSHIP. Established by Robert Lauterbach ’39 and his wife, Jane Stonerod Lauterbach ’41, income from the fund is awarded to an individual at the discretion of the Department of Economics and Business. The selection is based on achievement by the individual and not necessarily financial need.

LAWRENCE & MERCER COUNTY SCHOLARSHIP FUND. This scholarship was established in 2001 from the profit of the annual scholarship benefit “An Evening of Music” by generous area businesses and friends from Lawrence and Mercer counties. The recipient(s)
of this scholarship must be a resident(s) of Lawrence or Mercer County, Pennsylvania. It is awarded at the discretion of the Director of Financial Aid.

HENRIETTA LEE FELLOWSHIPS AND SCHOLARSHIPS. Income from this fund, established in 1941, is used to provide scholarships for young men and women, which are applied to their senior year expenses. The Henrietta Lee Senior Fellowships are awarded to students with outstanding scholastic records at the end of the junior year. The Henrietta Lee Scholarships are awarded to juniors in recognition of creative achievement and scholastic performance. Both the scholarship and the fellowship winners are announced at the Spring Honors Convocation. Five or more juniors are honored annually with Henrietta Lee awards.

NORMAN AND CLARA LEVY MEMORIAL SCHOLARSHIP. This fund was established in 1987 by bequest from Mrs. Levy. Income is used to further the Christian education of young students who without such aid would be unable to complete their education.

LIGO FRENCH SCHOLARSHIP FUND. This fund was established in 1991 in memory of Ida Louise Ligo ’15 and Alice E. Ligo ’25 by bequest of Alice E. Ligo, former French professor at Westminster. The income provides scholarships to be awarded on the basis of merit to students majoring in French with specific provisions to be at the discretion of the French faculty of the College but with the understanding that the recipients would be able, where appropriate, to use their scholarships when enrolled in approved off-campus programs.

LIGO SCHOLARSHIP FUND. This endowed fund established in 1981 as a memorial to Ida L. Ligo ’15, is the first endowed fund designated for use in the Alumni Grant-in-Aid Scholarship Program.

HAZEL S. LOVE ENDOWMENT. This fund was created through a gift in the estate of Louetta H. Love in memory of her mother-in-law, Hazel S. Love. Income from this fund is awarded to a deserving student or students who have need for financial assistance to attend Westminster College.

THE RONALD B. AND EMILY P. MACKALL SCHOLARSHIP. Established in 1996, the Mackall Scholarship is awarded to a full-time junior or senior student who has completed at least one year of Principles of Economics and has demonstrated an appreciation for the fine arts via course work and participation in performances. Consideration will be given to students who have successfully completed course work in both disciplines. Preference will be given (although not exclusive) to candidates who reside in the following counties: Columbiana and Mahoning, in Ohio; Lawrence and Mercer in Pennsylvania. Applicants must have a cumulative GPA of 3.000 in all college work. Applicants may apply for this scholarship through the Department of Economics and Business (chair) by Jan. 31 of the academic year. Finalists will be identified and one candidate selected by a subcommittee of three tenured faculty and the Associate Dean.

DR. PETER W. MACKY MEMORIAL SERVICE AWARD. This scholarship award will honor a third-year student who exhibits Christ-like service to the campus and the larger community, and whose example of dedication and caring for others inspires other students and exemplifies the best qualities of the human spirit. This award is not intended as a “most active” service award based on a listing of activities. The depth and impact of service are the main criteria. Only third-year students are eligible for the award, and payment/use will be applied to the fourth year of study at Westminster College. There are no restrictions as to declared major, grade point average, or financial need. The award will be presented at the annual Spring Honors Convocation. Students must be nominated in writing by a faculty member, and the recipient will be selected by the Admissions and Financial Aid Committee. Members of the Macky family will be informed of the nominees and their qualifications and, within one week of notification, may submit comments to the Director of Financial Aid for consideration.
DR. PETER W. MACKY MEMORIAL SOCCER AWARD. This non-cash award will honor the member of the Westminster soccer team who enhances morale by exhibiting to the team Christ-like service as determined by the coach, soccer players, and other designated judges. This award is not intended as a “most valuable player” skill award. Rather, it is intended to recognize the individual whose example of dedication and caring for others on the team and in the community inspires the best in the players. The award will be made to a third-year student at the end of his third year. The committee to select the recipient will consist of the Westminster soccer coach, members of the soccer team, and the Director of Athletics. The award will be presented annually at the College Sports Banquet.

THOMAS V. AND MARGARET MANSELL SCHOLARSHIP FUND. This fund was established in 1979 in honor of the Mansells on the Golden Anniversary of their graduation by their four children, all graduates of Westminster, Mary Lou ’58, Thomas S. ’61, Elizabeth ’63, and Charles Y. ’68. Mr. Mansell is former vice chairman of Westminster’s Board of Trustees.

LAURA MARQUIS SCHOLARSHIP. Income from this fund, established in 1939, is available to graduates of New Castle High School.

DR. J. BARDARAH McCANDLESS MEMORIAL SCHOLARSHIP FUND. This scholarship was established in 1998. Professor McCandless faithfully served Westminster College from 1961-1994 as a member of the Department of Religion. This fund honors Dr. McCandless for her dedication and devotion to Westminster, and provides scholarship aid for deserving students who demonstrate financial need. The recipient will be determined by the Director of Financial Aid.

McCAULEY AID FUND. This aid fund was established by a bequest in 1963 from the estate of Thomas McCauley of Philadelphia, Pa. The income is used for the assistance of worthy and needy students intending to enter the ministry or other Christian service.

BILL & RUTH McCAULEY SCHOLARSHIP FUND. This scholarship was established by the family and friends of Bill & Ruth McCauley in 1998. It is to be given to an undergraduate junior or senior student who is pursuing a career in teacher education in the areas of elementary or secondary education, or to a graduate student who is pursuing a career in the counselor education program. The student should have financial need and will be selected by the chair of the Department of Education and the Director of Financial Aid.

DR. W. DONALD McCLURE MEMORIAL SCHOLARSHIP FUND. This fund was established in 1977 by members of the Newlonburg United Presbyterian Church, Murrysville, Pa., where Dr. McClure ’28 was pastor before beginning a 40-year career in the mission field in Ethiopia and the Sudan. The fund includes gifts from members of the church, Westminster alumni, and other friends. Income from the fund provides aid for students with need who are preparing for the pulpit ministry, either at home or in the mission field abroad.

WALLACE E. McCONNELL MEMORIAL SCHOLARSHIP FUND. This fund was established in 1999 through a bequest of Dorothy H. McConnell in memory of her husband, Wallace E. McConnell ’22. Income from the fund is used to assist students in the chemistry department. The recipient will be determined by the Director of Financial Aid.

ROBERT T. AND VIRGINIA R. McDaniel ENDOWED ATHLETIC ASSISTANTSHIP PROGRAM. This program will help provide permanent support for Westminster’s new assistantship program. The program is designed to ensure a modest salary and housing for recent graduates interested in serving as athletic assistants (9-month academic year) with recruiting and coaching responsibilities.

ANNE McAULEY McGILL MEMORIAL ENDOWMENT. This fund was established in 1996 by the family of Anne McAuley McGill ’37. Mrs. McGill devoted her life to missionary work in Egypt with her husband, the Rev. Willis A. McGill ’33. Income from the fund’s investments is shared equally by McGill Library for its needs and for the preserva-
tion, enhancement, and use of the College’s collection of cultural artifacts for educational purposes.

HARRY W. McKEAN ’82 SCHOLARSHIP FUND. The income from a bequest in 1963 from the estate of Harry W. McKean, Kansas City, Kan., provides scholarship aid for deserving students.

WILLIAM P. MOORHEAD AND CAROL MOORHEAD SCHOLARSHIP FUND. Originally established in 1993, this award was renamed in 1998 in memory of both William P. Moorhead, longtime friend of Westminster College, and his sister Carol Moorhead. Income from this fund is available to students with financial need from Graystone Church. If none is eligible, the awards may be offered to other qualified students with financial need from Indiana, Pa.

MARGARET STEVENSON MOUNTSIE SCHOLARSHIP FUND. Income from this fund, established in 1987, is to be used for general scholarships with preference given to students who are graduates of Nutley (N.J.) High School.

DALE L. MULLEN MEMORIAL SCHOLARSHIP FUND. Established in 1993 by Mary L. Mullen in memory of Dale L. Mullen. The income from this fund will be used to reduce the student loan component of the financial aid package of a student from Lawrence County. The recipient will be chosen by the Director of Financial Aid.

LEONARD MYERS SCHOLARSHIP. This fund was created by a bequest in 1974 from the estate of Leonard Myers of Farrell, Pa., to provide assistance to a black student at Westminster.

MAUDE MYERS TRUST SCHOLARSHIP FUND. This endowed fund was established in 1995 by a bequest from the Maude Myers Trust. The income is used annually for students with academic achievements and extracurricular activities. Recipients will be selected by the enrollment management committee of the Board of Trustees.

DR. THOMAS R. NEALEIGH MATHEMATICS SCHOLARSHIP. This fund was established on Dec. 18, 1999, in honor and recognition of Dr. Thomas R. Nealeigh’s 23 years of service to Westminster College in the Department of Mathematics on the date of his 50th wedding anniversary by his family, friends and colleagues. The student recipient(s) should be a mathematics major in their junior and/or senior year of studies. The recipient(s) is to be determined by the chair of the Department of Mathematics.

ELIZABETH NIXON MEMORIAL SCHOLARSHIP. The Elizabeth Nixon Memorial Scholarship was established in memory of Elizabeth Nixon, associate professor of journalism at Westminster from 1946 until her death in 1956. From a fund established in 1961 by her students, alumni, colleagues and other friends, an annual scholarship for the junior year is awarded at the Spring Honors Convocation to a student of promise in liberal arts.

JOHN ORR SCHOLARSHIP FUND. In 1972 to honor Dr. John Orr, professor emeritus of religion, a group of alumni enlarged the fund he established in 1962 as the Karux Bible Award. Annually, the interest from this new fund is awarded to a seminary-bound pre-ministerial student who has done outstanding academic work in a minimum of four courses in the field of religion. The scholarship, determined on the basis of three and one-half years’ record, is announced by the chair of the religion, history, philosophy, and classics department.

WILL W. ORR PRESBYTERIAN SCHOLARSHIP. This fund was established in 1999 to honor the memory and the ministry of Dr. Will W. Orr, the ninth president of Westminster College (1949-67). Dr. Orr cared deeply for the Presbyterian Church and saw Westminster as a place where leadership for the church could be nurtured and strengthened. This scholarship grants aid to students who have demonstrated leadership in their local congregation and who have potential to be leaders of the church of the future. Awards are based on application (available in the Office of Financial Aid) and recommendations.
THE WINIFRED ORR MEMORIAL SCHOLARSHIP FUND. This fund was established in 1966 in memory of Winifred E. Orr, a Westminster graduate of 1905, by her sister Ethel M. Orr, of the Class of 1908, and her brother, Samuel H. Orr.

BARBARA OSTROWSKI SCHOLARSHIP FUND IN THE LIBERAL ARTS. This fund was established in 1986 through gifts from family and friends in memory of Mrs. Ostrowski, who was a member of the College secretarial staff for six years before her death in 1986.

DR. JAMES PATTERSON MEMORIAL SCHOLARSHIP FUND. This fund was established in 1985 by Ruth Thomas Carson, his great grandniece, and honors Dr. Patterson, who served as Westminster’s first president from 1853-66. It also honors Grace Elizabeth Thomas and Dr. Ralph L. Thomas, both deceased.

THE FRANCIS X. PETRINI SR. AND CAROLE R. PETRINI SCHOLARSHIP FUND. This fund was established in April 1998 through contributions from the Community Scholarship Benefit, “An Evening of Music,” which honored Mr. Petrini, a local businessman and philanthropist. Income from the fund provides scholarships for Lawrence and/or Mercer County students selected on the basis of scholarship and financial need. The recipient is to be determined by the Director of Financial Aid.

THE DR. AND MRS. ARTHUR W. PHILLIPS SCHOLARSHIP. This fund was established in 1987 by a $50,000 grant from the Phillips Charitable Trust of Oil City, Pa., and a matching grant of $50,000 by Westminster College. The scholarship is awarded to students enrolled or planning to enroll at Westminster who reside in the following counties in Pennsylvania: Butler, Clarion, Forest, Jefferson, Lawrence, Mercer or Venango. Recipients must have strong academic records and be in need of financial assistance. Awards are for one year, but may be renewed for subsequent years if conditions of eligibility continue.

PITCAIRN CRABBE SCHOLARSHIP. This endowed scholarship provides assistance for promising students of need from Allegheny County.

RAYMOND G. PRESTON MEMORIAL SCHOLARSHIP. This scholarship fund was established on June 7, 1995, through gifts from the family and friends of Raymond G. Preston. Income from the fund is awarded annually (for a maximum period of two years) to a junior or senior majoring or minoring in business or education. First preference will be given to applicants in Lawrence County, Pa., with a GPA of 2.000 or higher.

THE MARK PROSINSKI SCHOLARSHIP FUND. The income from this fund, established in 1998 by the Class of 1988, in memory of their classmate, Mark “Pro” Prosinski, is to be awarded at the end of the junior year to the junior with the highest academic standing, based on GPA, for use in the senior academic year. The student should be full-time and should attend Westminster College for all undergraduate years. In the event of a tie, the scholarship will be awarded to the student on the basis of financial need. The student is to be determined by the Director of Financial Aid.

TIMOTHY E. PROSSER MEMORIAL GRANT. This fund was established in 1976 by the Rev. and Mrs. Thomas E. Prosser of Emlenton, Pa., as a memorial to their son. Income from the fund is awarded annually to juniors who plan to enter the ministry or the Christian education field. Neither financial need nor scholarship is a consideration.

WILLIAM W. RANKIN SCHOLARSHIP FUND. This fund was established in 2002 by William W. Rankin ’60 in memory of his parents, Wesley O. and Mary B. Rankin, and in appreciation for what Westminster College has meant to him. Income from the fund is awarded annually to students at the discretion of the financial aid office. First preference is given to students who hold membership in the Valencia Presbyterian Church, Valencia, Pa. Second preference is given to students who hold membership in any other church in the Beaver-Butler (Pa.) Presbytery.

GLENN B. REED MEMORIAL SCHOLARSHIP FUND. This fund was established in 1975 by Harry E. Reed in memory of his son, Glenn B. Reed, a summa cum laude graduate of the Class of 1950. The fund also includes contributions from classmates and friends. Glenn B.
Reed, a Pittsburgh attorney, was president of the Westminster College Alumni Association in 1964-66 and a trustee of the College from 1967-75, during which time he served as secretary of the board for five years. The income from the fund annually provides assistance for one or more outstanding juniors or seniors preparing to attend law school.

THOMAS CLIFFORD AND ISABEL HUNTER REED MEMORIAL SCHOLARSHIP FUND. This fund was established in 1983 by Mary I. Reed ’28 in memory of her parents. Income from the fund provides scholarships for students selected on the basis of character, scholarship and need with preference to children of ministers or missionaries.

THE OSCAR E. REMICK SCHOLARSHIP FUND. This fund was established in March 1997 through gifts from the Community Benefit Program, “An Evening of Music,” which honored Oscar E. Remick, Westminster’s 12th president. Income from the fund provides scholarships for area students selected on the basis of character, scholarship and financial need. The recipient is to be determined by the Director of Financial Aid.

THE RENTZ FAMILY ENDOVED SCHOLARSHIPS. Created in 1988, by J. Fred and Richard Rentz Sr., of New Castle, Pa., the income generated from the $100,000 principal will be divided equally among four scholarships. One scholarship is named the Suzanne Shannon Rentz Scholarship, and the other three are named Rentz Family Scholarships. All four scholarships are restricted first to first-year students from Lawrence County; if none are eligible, the awards may be offered to first-year students from other counties. The preference is that qualifying first-year students would receive the scholarships for four years. The decision shall be made by the Director of Financial Aid.

JEFFREY R. ROBERTS MEMORIAL SCHOLARSHIP FUND. This fund was established by the family, classmates and friends of Jeffrey R. Roberts ’78, whose love and admiration for his fellow students and College played such an important part in his life. The income from this fund is to be given each year to a music major with ability, character and a financial need.

LOUISE BARR ROBERTSON SCHOLARSHIP FUND. Mrs. James M. Ferguson, Bellevue, Pa., granted this fund in 1963 as a memorial to her mother. The income is used to provide aid for women students with scholastic ability and financial need.

CATHERINE H. RODGERS ACADEMIC ASSISTANCE GRANT. Established in 1992, the income will be awarded each year to a senior student in the field of reading; or if there be none, in the general field of elementary education. The recipient is to be determined by the Director of Financial Aid.

THE ROHRBAUGH/MARK SCHOLARSHIP FUND. This fund was established in 1983 by gifts from Catherine (Elder) Rohrbaugh Mark ’30 of Massillon, Ohio, in memory of her late husband, Dr. John R. Rohrbaugh ’29. Income from the fund is awarded annually to deserving students with need.

HARRIET JACKSON SARVER SCHOLARSHIP. Income from this fund, established in 1986, is awarded annually to a senior majoring in mathematics.

THE CHARLES F. AND LILLIAN C. SAYLOR SCHOLARSHIP FUND. The income from this fund, established in 1973 by gifts from Dr. Saylor and friends, is used to provide financial assistance for education students at Westminster College. Dr. Saylor was Dean of the College Emeritus.

HARRIE ELIZABETH PARKER SCHMID SCHOLARSHIP FUND. This fund was established in 1980 by a bequest from Mrs. Schmid of New Castle, Pa., a 1924 graduate. The income is used to further the education of deserving students attending Westminster College.

THE SHEAR FAMILY MEMORIAL SCHOLARSHIP. It was established in 1983 by the family in memory of Dr. James A. Shear ’39 and his father, Dr. Ray H. Shear ’11.
JOHN SHILLING SCHOLARSHIP FUND. This fund was established in 1995 by the estate of Margaret Shilling Lieb ’32 in honor and memory of her brother, John Shilling ’36. The income is to be applied toward scholarships for students with financial need who receive average grades.

MINA GRUNDISH SIMPSON SCHOLARSHIP FUND. This fund was established in 1977 from the estate of Howard C. Simpson of Lancaster, Pa., a member of the Class of 1918, in memory of his wife, a 1917 graduate. The income, or the principal, if required, from the fund provides annual scholarship aid for deserving music students with talent and need.

THE LOUIS SKURCENSKI ’64 SCHOLARSHIP FUND. This scholarship, established in 1999, is in loving memory of Louis Skurcenski Jr., Class of 1964, with contributions from his family and friends. The fund will benefit a deserving chemistry major of junior or senior status. Second preference may be given to a biology, physics or computer science major. The student(s) must show in writing their future goals and list extracurricular activities through high school to present day. The student should exemplify the qualities of honesty and integrity and must also be dedicated to personal relationships and community service. The student is to be selected by the Director of Financial Aid, in conjunction with the chair of the chemistry department, or selected department by the student’s major, after review with family members.

THE SAMUEL H. SLOAN MEMORIAL SCHOLARSHIP. Established in 1973 in memory of Associate Professor Sloan of the Department of Economics and Business, it is presented annually to one of the top five senior students in the economics and business department based on their all-college average at the end of their junior year. In addition to academic achievement, the student’s record of campus citizenship and involvement in campus activities is considered.

JANE SMILEY SCHOLARSHIP FUND. The income from this fund, established in 1988 by Rev. and Mrs. Joseph Brownlee, is to be used to provide financial assistance to Westminster College students who have graduated from Union High School, Burgettstown, Pa., or to qualified Westminster students from the Washington County area.

BETTY L. SMITH ENDOWED SCHOLARSHIP was established in 1988 by family members and friends as a memorial to Betty L. Smith. The recipient must have financial need with priority given to a Westminster student who is a member of the Second United Presbyterian Church of New Castle, or who is a member of Rev. Charles Van Gorder’s church, or a worthwhile Westminster student. The decision shall be made by the Director of Financial Aid.

DOROTHY KENDALL SMITH SCHOLARSHIP FUND. This scholarship fund was established in honor of Mrs. Dorothy Kendall Smith, a lifetime Lawrence County resident, by her son Dr. Donald L. Smith ’54 and his wife, Rae Marie Smith. The student recipient(s) should be a sophomore, junior or senior education or pre-med major and a resident of Lawrence County with first preference from Neshannock Township. The scholarship should be awarded on the basis of financial need by the Director of Financial Aid.

MRS. WILLIAM L. SMITH SCHOLARSHIP. The income from a fund established in 1957 by Mrs. Mary Smith Crawford of Sewickley in memory of her mother, Mrs. William L. Smith, is given to a man or a woman in the senior class who is preparing for a church-related occupation and who needs assistance.

JAMES D. SOUTH MEMORIAL SCHOLARSHIP FUND. Established in 2001 by a bequest from James D. South ’35, this fund is to be invested and the income used to provide annual awards to students on the basis of scholastic achievement in the fields of history and/or political science as judged by the faculty in these departments and the Director of Financial Aid.
JOSIAH STEPHENSON SCHOLARSHIP FUND. This scholarship was created by a bequest in 1963 from the estate of Josiah Stephenson, New Castle, Pa. The income is used to assist young men preparing for the ministry.

G. ALAN AND MARGARET E. STERNBERGH SCHOLARSHIP FUND. Income from the fund, established in 1991 by G. Alan Sternbergh ’51 and his wife, Margaret Elliott Sternbergh ’54, is awarded annually to first-year students at the discretion of the financial aid office. First preference is given to students whose families hold membership in the Neshannock Presbyterian Church, New Wilmington, Pa. Second preference is for graduates of Wilmington Area School District, and third preference is for graduates from other Lawrence County school districts. Mr. Sternbergh served as Director of Career Planning and Placement at Westminster for 22 years.

DONALD CALVERT STEWART MEMORIAL SCHOLARSHIP. This fund was established in 1987 by bequest from Dorothy S. Kenney, St. Petersburg, Fla., in memory of her brother, a lifelong resident of Butler, Pa. Income from the fund is awarded annually, preferably to men from the Butler area who have financial need and who have demonstrated character, self-reliance and a sense of family responsibility.

GLADYS BLAINE STRAWN SCIENCE SCHOLARSHIP FUND. This scholarship fund was established in February 2000 in honor of female students of science by Ms. Gladys Blaine Strawn, Class of 1935. Ms. Strawn was a chemistry major while at Westminster College and taught in public education for 50 years. The scholarship(s) should be awarded to a sophomore, junior or senior female science major(s). The student(s), selected by the Director of Financial Aid, should have a 3.000 GPA and demonstrate financial need.

THE WILLIAM H. STRUTHERS FOUNDATION SCHOLARSHIP FUND. Income from a fund, established in 1959, is to provide scholarships for young men and women who do not have the means for a college education. Preference is shown to children and cousins of the late William H. Struthers of Bellevue, Pa., and their descendants, then to graduates of either Bellevue High School or Canonsburg High School. If none of these apply, the funds may be used for other students.

GILBERT H. TAYLOR MEMORIAL SCHOLARSHIP. This fund was established in 1987 by a friend of the classics as a memorial to Professor Gilbert H. Taylor, who taught Latin and Greek at Westminster from 1925-53. Income is awarded annually to a new or continuing student of Latin or Greek on the basis of merit. Preference is given to a student majoring in Latin, but if there is no deserving Latin major, the scholarship is awarded to a deserving student minoring in Latin or Greek.

TITAN ATHLETIC FUND. This fund was established in 1977 by gifts from Titan lettermen and friends. Income from the fund is awarded to deserving athletes recommended by the Department of Physical Education and approved by the student aid committee.

THE EDWIN AND JOY TOBIN SCHOLARSHIP FUND. This fund provides an unrestricted endowed scholarship which will be awarded at the discretion of the financial aid office. Dr. Edwin G. and Dr. Joy D. Tobin both received their M.Ed. degrees from Westminster. Their three children graduated from the College as well. Dr. Edwin Tobin served as Director of Admissions at the College for 18 years.

J. HILTON TURNER CLASSICS SCHOLARSHIP. Income from this permanent endowed fund, which was established in 1997, is awarded annually to one or two students who show the most progress in Latin or Greek language. This fund is the successor of the J. Hilton Turner Classics Prize which was established in 1987 to honor Dr. Turner, professor of Greek and Latin from 1952-84, and maintained by gifts from Maggie Magee, Class of 1961.

VANCE DISTINGUISHED SCHOLAR PROGRAM. The Vance Distinguished Scholarship Program was established in 1998 by Raymond G. and Martha Vance Wile ’57 to honor the
Vance family of New Wilmington. The fund supports ten major scholarships: Two awards reserved for chemistry, two for English, with the remaining six available for all other majors. Scholarships are awarded to entering students displaying high academic ability and achievement. Recipients must be in the top 10 percent of their high school class. Scholarships are renewable for three years provided recipients maintain an overall GPA of 3.000 or better. Awards will be determined by the Director of Financial Aid.

THE VAN GORDER/SMITH SCHOLARSHIP FUND. This fund was established in 1976 by gifts from Maurine Smith Van Gorder ’40, and Betty L. Smith ’46, in memory of their uncle, Dr. Charles R. Frischkorn. The income provides substantial annual grants to pre-medical or other pre-professional students in any class. Recipients must have outstanding academic credentials and be highly recommended by their clergyman. Preference is given to students from Lawrence County, Pa. The award may be continued, provided a 3.300 cumulative average is maintained.

ROBERT WELLS AND HARRIET McLAUGHRY VEACH MEMORIAL SCHOLARSHIP FUND. This fund was established in 1982 by Dr. Elizabeth M. Veach ’23, New Wilmington, Pa., and members of the family, in memory of their parents, both graduates of Westminster in the 1890s.

GEORGE CAROTHERS VINCENT MEMORIAL FUND. This fund, established in 1965, is a memorial to George Carothers Vincent, one of the leaders in the founding of Westminster.

SAM AND KATHERINE WILEY SCHOLARSHIP FUND. This fund was established in 2001 by S. Donald and Josephine Hartman Wiley ’50 ’49 in memory of Mr. Wiley’s parents, Sam and Katherine Wiley. The income from the fund will be used to support students from Northern Ireland to study at Westminster College for a one-year period. Students will be selected by and the scholarship administered through the Association of Presbyterian Colleges & Universities.

THE MARILYN ELKINS WILGOCKI MUSIC SCHOLARSHIP FUND. This scholarship was established by Marilyn Elkins Wilgocki ’57, and is designed to assist one deserving and talented junior or senior level student on an annual basis who is pursuing a degree in sacred music. The student should be in preparation for employment in music ministry at the church level or for teaching sacred music at an institution of higher learning. The scholarship shall be awarded at the discretion of the Director of Financial Aid and the chair of the music department and may be used for tuition, room and board, supplies, music lessons, or special studies.

Endowed Prizes and Awards

JOHN F. McBURNEY BIBLE AWARD. This endowed fund was established in 1987 by a bequest from the estate of M. Elizabeth McBurney in memory of her husband. The award is for outstanding scholarship in the area of religion or philosophy to a deserving student in accordance with the College scholarship policy.

THE MARY McKINNEY EICHENAUER BIBLE AWARDS. To promote interest in the study of the Bible, these awards were established in 1936 by J. B. Eichenauer of Pittsburgh in memory of his wife. Three prizes are announced at the Spring Honors Convocation. Prize winners are determined by the results of a competitive examination conducted by the Department of Religion, History, Philosophy, and Classics.

THE FLOY ROBERTSON FERGUSON AWARD. This fund, established by Robert D. Ferguson in 1974 in memory of his mother, provides for an award to the junior student who
has made an outstanding contribution to college life. Neither financial need nor academic performance is a consideration in the selection.

THE MILDRED PRATHER HENDERSON POETRY SERIES AND AWARDS FUND. This fund, established in 1987 in memory of Mildred Henderson of New Castle, Pa., a charter member of the New Castle Poetry Club, supports an annual poetry reading given by a nationally recognized poet. The visiting poet also will judge two poetry contests—one open to Westminster students, and the other to area high school students. The visiting poet will honor contest winners with the Mildred Prather Henderson Poetry Award at the annual reading.

THE McQUISTON COLLEGE SERVICE AWARDS. These awards, endowed by W. James McQuiston ’29 and Mrs. McQuiston of Battle Creek, Mich., in 1979, are given annually at the Spring Honors Convocation to a rising senior man and a rising senior woman for unselfish service to the Westminster community during their college careers. Selection is made by the faculty and administrative members of the student life committee from nominations made by classmates. The awards are in honor and in memory of seven members of the McQuiston family with Westminster ties. They are the Rev. J.A.C. McQuiston, College trustee, 1913-17, and first business manager, 1917-20; Mrs. J.A.C. McQuiston, acting dean of Hillside Dormitory, 1917-18; Daniel H. McQuiston ’15, director of athletics, 1922-23; Helene McQuiston (Mrs. D.H.), music faculty, 1922-24; Charles M. McQuiston ’16; Minnie Belle McQuiston Ege ’18, dean of women, 1921-22; and Mary E. McQuiston ’69.

THE ROBERT P. POMEROY BIBLE AWARDS. These awards, established in 1936, consist of Bibles and are awarded to two members of the first-year class doing outstanding work in Bible-content courses.

Prizes, Awards and Scholarships (non-endowed)

BIOLOGY. The Beta Beta Beta book awards are presented annually to the outstanding first-year student and senior biology majors.

THE JANE SMILEY BROWNLEE SCHOLARSHIP FUND was created in 1995 by Rev. Joseph T. Brownlee through a charitable remainder unitrust. Rev. Brownlee’s wish was to create the fund in honor and in memory of his wife, Jane Smiley Brownlee ’36. Upon his death in 2002, Westminster College began to receive income from the fund to grant scholarship aid. The income from the fund will be used in accordance with the following priorities. First priority to benefit students from the six churches named in the charitable remainder unitrust, representing the six churches served by Rev. Brownlee throughout his ministry: The Presbyterian Church of Plumville, Pa.; The New Lisbon Presbyterian Church of Lisbon, Ohio; The Unity Presbyterian Church of Cambridge, Ohio; The Highland-Sixth Presbyterian Church of Cleveland, Ohio; The Grace Presbyterian Chruch of Martins Ferry, Ohio; and The Nobleton Community Church of Nobleton, Fla. If income remains after the first priority, second priority to benefit students of Lawrence County. If income remains after the second priority, third priority to benefit any deserving students consistent with the scholarship policies of the College. Awards will be made at the discretion of the Director of Financial Aid.

CHEMISTRY. The Student Affiliates of the American Chemical Society annually award a book to a junior for outstanding scholarship and/or service to the chapter.

COMPUTER SCIENCE. Upsilon Pi Epsilon awards a book to the sophomore computer science or computer information systems major with the highest all-college average.

EDUCATION. The annual Kappa Delta Pi Award, consisting of a symbolic key, is presented to the senior elementary education major with the highest scholastic average and to the senior academic major preparing to teach who has the highest scholastic average.
ELIZABETH TOWNSHIP SCHOLARSHIP. This fund was established from an anonymous gift for students of Westminster College from Elizabeth, Pennsylvania.

FISHER SCIENTIFIC AWARD FOR MOLECULAR BIOLOGY. Fisher Scientific Company annually presents a cash award to the senior major in molecular biology with the highest overall grade point average.

GIFT SCHOLARSHIPS. Other scholarships awarded from designated gifts are as follows:

- Bremer Foundation
- Class of 1977 Scholarship for Handicapped
- Class of 1982
- Robert F. Fassbach
- Joseph R. Henderson (Phi Delta Kappa)
- M.L. Henry Children’s Home
- Janet E. Hopkins
- Investors’ Guarantee Life Insurance
- David J. Kieffer
- Caroline Knox Foundation
- Mack Foundation
- Lucille Mansell
- Ohio State Life Insurance Co.
- Various Presbyterian Churches
- Samuel Robinson

HISTORY. Phi Alpha Theta presents a book annually to the senior history major with the highest scholastic average to date. The award is announced at the Spring Honors Convocation.

THE GRACE MARTIN HOPKINS MEMORIAL SCHOLARSHIP. This scholarship is named for a 1909 graduate of Westminster who was honored as one of the College’s Distinguished Alumni in 1968. This scholarship is awarded annually to the upperclass student(s) judged to have contributed most significantly to the religious life of the College.

CAROLINE KNOX MEMORIAL WESTMINSTER SCHOLARSHIP. This scholarship was established in 1996. The award is granted annually to Lawrence County high school seniors who have demonstrated financial need. The award is granted based upon the recommendation of the financial aid director and approved by the Caroline Knox Memorial Trust Fund.

MATHEMATICS. A book of interest in the field of mathematics is awarded annually by Kappa Mu Epsilon. To be eligible, a student must have earned a grade of A in each semester of first-year mathematics and must be currently enrolled in second-year mathematics. The book is presented to the student from this group with the highest grade average in academic subjects.

FRANK L. AND ESTHER VAN DYKE MCCLURE MUSIC SCHOLARSHIP. This fund was established in 2002 by a bequest of Kenneth W. and Kathryn McClure Beels ’33 in memory of Kathryn’s parents, Frank L. and Esther Van Dyke McClure. The income from the trust is awarded annually to music students on the basis of merit and academic achievement. The award is to be made at the discretion of the chair of the Department of Music and the Director of Financial Aid.

NEW WILMINGTON UNITED PRESBYTERIAN CHURCH SCHOLARSHIPS. Scholarships are awarded to deserving students through generous gifts from the New Wilmington United Presbyterian Church. These scholarships have been granted since the early 1950s.

PHI SIGMA TAU PHILOSOPHY PRIZE. This prize is awarded to the senior philosophy major or minor who has earned the highest GPA in philosophy courses with a minimum of a 3.000 average.

POWERS TRUST SCHOLARSHIP. The Powers Higher Educational Trust Fund of Youngstown, Ohio, established this scholarship at Westminster in 1989. It is a minority student loan equalization grant designed to take the place of the student loan portion of a financial aid package offered to qualified minority students from Trumbull, Ma-
honing and Columbiana counties in Ohio. The Powers Minority Student Equalization Scholarship is in honor of Edward W. and Alice R. Powers.

RELIGION. The American Bible Society Award, a Bible provided by the American Bible Society, is given to the sophomore student whose work in religion courses has been superior. See also Grace Martin Hopkins Scholarship.

SHARONSTEEL FOUNDATION SCHOLAR AWARD. The Sharonsteel Foundation established this award in 1997. The award is granted annually to a student from Mercer County based on merit and need. The recipient must demonstrate leadership potential, as well as extracurricular initiative. A GPA in the last two years of at least 3.500 is required. Recipient is selected by Sharonsteel Foundation trustees based upon recommendation from the Director of Financial Aid.

SHENANGO PRESBYTERY SCHOLARSHIP FUND. This fund, established in 1892, provides outright grants to students based on need and merit. Awards are based on written application to the Presbytery’s Higher Education Committee, and applicants should be members of the Presbyterian Church, U.S.A., preferably in the Presbytery of Shenango.

JAMES A. SWINDLER SCHOLAR AWARD. This award has been established by Mr. and Mrs. Matthew P. Hosie in memory of her father, Dr. Swindler, who taught physics at Westminster from 1919-55. It is presented annually to a physics major, traditionally a first-year student, based on academic excellence, need, character, and service to Westminster.
Graduation Requirements
The Westminster Plan
Academic Advising
Comprehensive Examination

Special Study Opportunities
Internship Program
Registration
Academic Recognition
Withdrawal
Summer Session
Student Regulations
Pre-Professional Programs
Academic Policies

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

The graduation and other academic requirements contained in this catalog apply to students who enter Westminster College during the academic year 2002-2003 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 the end 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.
Graduation Requirements

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

1. Successfully complete at least 132 semester hours (140 semester hours for a bachelor of music degree).

2. Take a minimum of 84 semester hours outside their major discipline. For students with double majors the courses in the second major may be counted towards this requirement of 84 hours outside the major. For interdisciplinary majors, the student must have this minimum of 84 hours outside the discipline which constitutes the largest number of courses in the major. Students who complete the Honors Program need take only 80 semester hours outside the major discipline. For majors in the Bachelor of Music program, the student must have a minimum of 40 semester hours outside of music.

3. Successfully complete the Wellness and Physical Education requirement. See p. 70.

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

5. For all courses taken in the major*, attain a GPA of 2.000, and for the minimum 36 hours required in the major**, 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. 73 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.

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 101 and 102, a yearlong, first-year core requirement for all students. Communication skills are developed in conjunction with the Inquiry courses. Students enroll in semester-long courses in writing and oral communication. The middle two years of the undergraduate experience are devoted to Cluster Courses and to courses satisfying prescribed Intellectual Perspective requirements. The general education curriculum culminates in a senior year Capstone Course in the major.

Throughout the entire curriculum, the 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 101 and 102; (2) Writing; and (3) Oral Communication. These courses provide a common educational experience for first-year students and are the centerpiece of liberal learning at Westminster.

INQUIRY 101 AND 102

Inquiry 101 and 102 comprise a yearlong course of study designed to confront and engage students with questions that have traditionally been at the center of a liberal arts education. There are the four primary Inquiry questions:

(a) How do we know?
(b) What is the nature of humankind?
(c) What is the good and how can humans attain it?
(d) What should we make our ultimate concern?
Fundamental to the exploration of these questions is an investigation of their ethical and moral dimensions, including an examination of virtues—those qualities that contribute to the common good. Westminster’s faith heritage provides an appropriate vantage point for examining these enduring questions. In Inquiry, students evaluate their own belief systems in the process of understanding the belief systems of others, and develop a more mature and informed philosophy of life. In a given semester, all sections of Inquiry have a shared focus, promote interdisciplinary study by including a set of common readings (at least two-thirds of the material is in common), examine a set of shared questions and require similar assignments, and emphasize the applied use of sophisticated information technology.

In addition to the two Inquiry courses, first-year students are required to take writing and oral communication courses purposely designed to complement Inquiry 101 and 102. Assignments in writing and oral communication correspond with those in Inquiry, thus making skill and content instruction mutually reinforcing. In turn, learning in the Inquiry courses is enhanced throughout the year 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, which have traditionally been at the center of a liberal arts education. They cover the four primary questions and evaluate their own matured belief systems in the process of understanding the beliefs of others.

**WRITING**

Writing is a valuable and necessary tool for the investigation, exploration, analysis, evaluation and expression of ideas and experiences encountered in Inquiry 101 and 102. 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 courses 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 courses 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. Refer to the departmental listings for courses which fulfill Intellectual Perspectives. Also, 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 participation in two seasons of a varsity sport. Students may only earn a total of four wellness and physical education credits in the required 132 semester hours for graduation. Grades in courses beyond the requirement will not be counted in the student’s grade point average.

**Community Service**

A natural outgrowth of the faith heritage of Westminster College is the existence of a graduation requirement that provides opportunity for all students to engage in a community-based learning experience. Because community service is an overt
expression of those central values inherent in the philosophy and mission of the College, it is a legitimate vehicle for significant educational opportunities in a real-world setting, and is deemed by the faculty to be an important cornerstone of a liberally educated person.

Initiation of the community service requirement begins in the student’s first year in Inquiry 102 (for transfers and other special cases see below), and the requirement is to be completed by the midterm of the spring junior semester.

PREPARATION OF A COMMUNITY SERVICE CONTRACT
In Inquiry 102, instructors will explain the nature of the requirement and, working in concert with the Coordinator of Internships and Community Service, provide examples of acceptable projects. The contract will be written in consultation with the student’s Inquiry 102 instructors and must be approved by that instructor before it may be submitted to the Coordinator of Internships and Community Service. The instructor will ensure that the project is appropriate, feasible and represents a significant effort to engage in community service.

COMPLETION OF REQUIREMENT
It is the student’s responsibility to provide the Career Center with the appropriate forms indicating that the community service activities have been completed. These forms may be obtained from the Career Center office or from the Web site. The requirement must be completed and documentation submitted before pre-registration (usually mid-April) during the second semester of the student’s junior year. Students who have not completed the requirement by that time may not be permitted to register for the following semester.

AMENDING CONTRACTS
Students may wish to amend or replace the original contract prepared. To do this a student completes a new contract form obtained from the Career Center office and submits it to the academic adviser. The plan must be approved by the adviser.

LLP AND TRANSFER STUDENTS
Information about completion of the Community Service requirement is obtainable from the Career Center.

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.
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. 67.) 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 at least one major field. The minimum requirement for a major is 36 semester hours in one discipline, but some majors require more (see statements under individual departmental headings). Westminster College offers major programs leading to the degrees of Bachelor of Arts, Bachelor of Science, and Bachelor of Music.

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

**Bachelor of Arts**
- Broadcast Communications
- Christian Education
- Elementary Education
- English
- Fine Art
- French
- German
- History
- Latin
- Media Art
- Music
- Philosophy
- Political Science

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

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

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

<table>
<thead>
<tr>
<th>Bachelor of Arts</th>
<th>Bachelor of Science</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercultural Studies:</td>
<td>Environmental Science</td>
</tr>
<tr>
<td>Sociology and Modern Languages</td>
<td>Financial Economics</td>
</tr>
<tr>
<td>International Politics</td>
<td>International Business</td>
</tr>
<tr>
<td></td>
<td>Neuroscience</td>
</tr>
<tr>
<td></td>
<td>Psychology—Human Resources</td>
</tr>
</tbody>
</table>

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. Normally, a minor, where available, consists of 24 semester hours in a single discipline, or as specified by the department. 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.

**HONORS.** Students seeking admission to the Honors Program must hold at least junior standing at the time of entry into the program, have a grade point average of at least 3.500 for all courses taken, have a grade point average of at least 3.500 for all courses taken in the major, and obtain the approval of both the major department (or the committee overseeing the interdisciplinary area in which a student wishes to work) and the Academic Standards Committee. Individual departments (or interdisciplinary committees) may set a higher minimum grade point average for courses taken in the major, as well as other prerequisites for admission to the
Honors Program (see statements under individual departmental or interdisciplinary major headings).

Approved candidates begin by taking the Honors Colloquium during the junior year. Students who complete the Honors Colloquium continue their participation in the Honors Program by enrolling in from 8 to 16 semester hours in Honors Project. The research process culminates in the writing of an Honors Thesis. Successful completion and defense of the Honors Thesis or Project entitles the student to have the phrase “College Honors in [name of major or discipline(s)]” inscribed on the diploma.

Students who are interested in the Honors Program should obtain from the honors moderator the Honors Handbook, which contains a complete description of the Honors Program, as well as information on the procedures and deadlines established by faculty action for each stage of the program.

HONORS COURSES

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. Students in consultation with their department and the Honors Moderator will develop an annotated bibliography for their Honors Project as part of the colloquium.

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.

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 towards graduation, but also credit towards their major or minor, or towards fulfilling part of the Liberal Studies requirements. Specific credit arrangements, however, must be worked out in consultation with the Associate Dean of the College, 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 minimum 2.500 GPA.
2. Students electing to study off campus in non-approved programs will apply for a “leave of absence” for the duration of the planned off-campus study.
Information about specific off-campus programs is available from the Director of Off-Campus Study who is located in the Office of Academic Affairs.

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. In the business department, it may be possible to serve an internship from mid-April through mid-May.

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.

When taken during the regular academic year, as part of the normal credit load, no additional tuition is charged for an internship. If taken during the summer, a flat fee of $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, weekly e-mail information, 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. For permission to register at any other time, a fee of $10 is charged.
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.

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 20 semester hours of tuition-incurring courses, each semester hour beyond 20 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 five 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 weeks 1-2 of classes, and dropped through weeks 1-3 of classes in the Fall and Spring semesters. However, first-semester first-year students may drop one course during weeks 1-10 of classes, 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 three 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.

No schedule change is effective until the add/drop card, completed and signed, is filed with the registrar and all late fees, if any, 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. 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>Points</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></td>
</tr>
<tr>
<td>B</td>
<td>3.000</td>
<td>Superior quality</td>
</tr>
<tr>
<td>B-</td>
<td>2.700</td>
<td></td>
</tr>
<tr>
<td>C+</td>
<td>2.300</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></td>
</tr>
<tr>
<td>D</td>
<td>1.000</td>
<td>Passing, but inferior</td>
</tr>
<tr>
<td>D-</td>
<td>0.700</td>
<td></td>
</tr>
<tr>
<td>F</td>
<td>0.000</td>
<td>Failure to demonstrate even minimal mastery of course content and/or failure to meet the course requirements for a passing grade. When this is a final grade, it may not be changed or removed except by re-registration in the course and successful repetition of the class work at Westminster College.</td>
</tr>
</tbody>
</table>
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 Fall or Spring semester if the student remains in college. Students who are not enrolled at the College must remove the incomplete within one year after the close of the semester in which the 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.

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

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.

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.

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.

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. Further repetitions must be approved by the Academic Standards Committee.
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. However, the transient credit policy applies and the grade is not calculated into the student’s GPA. 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.

**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 taken elsewhere on a transient basis will not be included in the Westminster GPA.

**Transcripts**

Transcripts of an official academic record may be obtained from the registrar’s office for $3 per copy requested (checks or money orders should be made out to Westminster College). All requests must be made in writing and be signed by the student. Any request which is not accompanied by the proper fee will not be processed. Transcripts are not released if a student has outstanding financial obligations to the College.

**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. 31 of this catalog, in the *Student Handbook* and from the Office of Student Affairs.

**Academic Classification**

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

<table>
<thead>
<tr>
<th>Class</th>
<th>Semester Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sophomore</td>
<td>28</td>
</tr>
<tr>
<td>Junior</td>
<td>64</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* 1.700
  (for three or more graded courses)
- 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 may be subject to 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 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 liable to academic suspension. Students who have been placed on academic probation for a third time are also liable to academic suspension. All such decisions shall be made by the Academic Standards Committee. In lieu of academic suspension,

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*Semesters in college shall include transfer semesters as well as semesters at Westminster College.*
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. 79). 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 liable to permanent academic dismissal. This decision shall also be made by the Academic Standards Committee.

**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.

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 3.500 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 from College

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.

Withdrawal or Transfer

A student wishing to withdraw or transfer from the College should start the process by seeing the Dean of Student Affairs for an exit interview. The purpose of the interview is to assess the student’s present status and to ascertain the reason for withdrawal or transfer.

Voluntary Leave of Absence

Students may, upon approval of the Dean of the College, elect to take a voluntary leave of absence from their studies at Westminster College. 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 will normally be granted only if the circumstances which warrant it are beyond the student’s control, and normally only for one full (Fall or Spring) semester. Students who are granted such a leave will be permitted to resume their studies subject to the same graduation and program requirements to which they were subject at the time when they began their leave.

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 the Registrar.

Admission Procedure

High school graduates who wish to begin the work of the first year in the summer should follow the regular procedure for admission, specifying that entrance to the Summer Session is desired.
Students from other colleges or universities should contact the Office of Admissions for a Summer Session application. No official transcript is required unless the student plans permanent transfer to Westminster. In this case, the student should arrange to have a transcript mailed to the Dean of Admissions as early as possible.

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 professos 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 are expected to maintain the highest standards of academic honesty and integrity, in keeping with the philosophy and purposes of the College.

Academic dishonesty is a profound violation of this expected code of behavior. It can take several forms, including, but not limited to, plagiarism, cheating, purposely altering the work of another (without that person’s permission), misrepresentation of attendance in class or at College events, misrepresentation of work, facts or experimental results, unauthorized use of or intentional intrusion into another’s computer files and/or programs, intentional damage to a computer system, unauthorized use of library materials and privileges, or engaging in any activity which attempts to alter or harm another’s academic standing.

Academic dishonesty in any of these forms will not be tolerated. Students who engage in academic dishonesty face penalties such as failure in the course involved or expulsion from the College. All instances of academic dishonesty will be reported to the Dean of the College.

The Student Handbook specifies the procedure for dealing with contested instances of academic dishonesty.

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 who have not finished 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.

Master of Health Management Systems

Westminster participates in a cooperative program with Duquesne University where students, after graduation from Westminster, may be eligible to enter a program of study that leads to a Master of Health Management Systems degree from Duquesne. Additional information on this program is available from Mr. Tom E. Rosengarth.

Pre-Law Program

Students who are interested in attending law school ordinarily elect a standard disciplinary or interdisciplinary major, along with challenging electives outside the major discipline. Westminster has a Law Professions Advisory Committee (Law PAC) which advises students on career opportunities in law and law-related fields and assists students in preparing for admission to law schools. Law PAC also sponsors programs to promote interest in law-related fields, such as trips to area law schools and visits to campus by individuals active in various areas of the law. Students may also participate in the Westminster Student Pre-Law Association.
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, Pre-Law adviser.

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

Students interested in careers in Health Sciences (medicine dentistry, optometry, podiatry, physical therapy, veterinary medicine, etc.) can meet their goals at Westminster College. Students typically prepare for each career path by completing prescribed courses and a national aptitude exam, which is specific for each type of professional school. The Medical Professions Advisory Committee (Med PAC) guides students along each path by advising on course selections, educating students about career and professional school attributes, providing study sessions to enhance performance on aptitude exams, and helping students through the application process. The committee provides opportunity for students to visit professionals in the field and meet admissions staff of regional schools. Med PAC is also pleased to recommend qualified students to professional schools. Westminster’s curriculum and advising program have been highly successful in helping students gain admittance to many Health Science programs. Further information is available from Dr. Timothy A. Sherwood, chair of the Medical Professions Advisory Committee.

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 the Pre-Dental program, is available from Dr. Timothy A. Sherwood, chair of Med PAC.

Pre-Seminary Preparation

Westminster was originally founded primarily to prepare students to enter the ordained ministry. Although this is no longer its main purpose, Westminster continues to have a strong commitment to preparing students for the ordained ministry and other church-related vocations. Although not required for entry into most seminaries, many students who plan to attend a seminary choose to declare a major in religion or Christian education, with appropriate supporting courses in ancient Greek and in other disciplines (e.g., philosophy, history, literature, psychology, speech, sociology). A faculty member in religion who is either an ordained minister or who has done graduate work in theology at a seminary serves as a primary or secondary adviser for students who plan to attend a seminary.

Teacher Preparation

Westminster is approved by the Department of Education of the Commonwealth of Pennsylvania for the preparation of elementary and secondary school teachers. Secondary school teachers are prepared in the following fields: biology, chemistry,
English, French, general science, German, Latin, mathematics, music, physics, social studies (history, political science), and Spanish. Music and the foreign languages are K-12 certifications. K-12 certifications require the Pre-professional Skills test (reading, writing, mathematics), a principles of learning and teaching test, Elementary School: Content Knowledge test, and Speciality Area test. 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.

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. Westminster currently has formal agreements with Pennsylvania State University, Case Western Reserve University, and Youngstown State University, but in special cases similar arrangements can be made with other engineering schools. Programs available through the cooperating engineering schools 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 141 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. G. Samuel Lightner IV, 3-2 engineering coordinator.

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. Additional information on this program is available from Dr. Carolyn K. Cuff, chair of the Environmental Science Committee.

**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.
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.

Semester Course Offerings

The specific courses (including times, locations, and instructors) which are offered each semester (including Summer Session) 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.
Major Programs and Departments

Accounting
(See Economics and Business, p. 119)

Art
(See Communication Studies, Theatre, and Art, p. 113)

Biology

Professors: J. Philip Fawley, Clarence E. Harms, Patrick C. McCarthy
Associate Professor: Ann E. Throckmorton
Assistant Professors: Joseph M. Balczon, Joshua Corrette-Bennett, John C. Robertson
Chair, Dr. Throckmorton

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

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. 86. 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 36 semester hours in major courses which must include the following:

1) BIO 110 and 111;
2) one course in three of four areas of concentration:
   Evolution and Biodiversity   BIO 210 or 211 or 212
Physiology and Cell Biology  BIO 220 or 221, or both 222 and 223
Genetics  BIO 230 or 231
Ecology  BIO 240 or 241;

3) 12 semester hours in elective courses, eight of which must be in courses numbered 300 or above (excluding BIO 560-590, and limited to no more than eight semester hours in BIO 620-650 and/or BIO 660-690); four semester hours may carry a 200 number;

4) senior capstone BIO 601.

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

Supporting courses for the major in biology:

CHE** 117, 261 and 262; PHY 151 and 152; MTH 141 and 211.

The Major in Molecular Biology: Requirements for a major in molecular biology are met by taking 36 semester hours in major courses, which must include the following:

1) BIO 110 and 111, 211, 220, 230 and 320;
2) four semester hours selected from BIO 221, 321 or 332;
3) at least four semester hours of research, as BIO 560-590, 620-650, or 660-690;
4) senior capstone BIO 601.

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

Supporting courses for the major in molecular biology:

CHE** 117, 261 and 262, 381; MTH 141; and PHY151 and 152.

The Minor in Biology: Requirements for a minor in biology are met by taking 24 semester hours of courses in biology, including BIO 110 and 111, and one course in each of four concentration areas: 1) Evolution and Biodiversity – BIO 210 or 211 or 212; 2) Physiology and Cell Biology – BIO 220, 221 or both 222 and 223; 3) Genetics – BIO 230 or 231; and 4) Ecology – BIO 240 or 241. No grade lower than C- may be used to satisfy these courses in 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 110 and 111, 211, 220, 230 and 320. No grade lower than C- may be used to satisfy these courses in the minor.

**Many professional and graduate schools require one full year of inorganic chemistry for admission. It is the student’s responsibility to obtain the specific admission requirements for any prospective professional or graduate school.

Interdisciplinary Programs: Requirements for environmental science and neuroscience are found on p. 142 and 188.
**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 four concentration areas;
+ fulfill the requirements for graduation;
+ successfully complete the minor in secondary education***

A biology major can get certification in general science by:

+ successfully completing the major in biology;
+ taking GEL 121 and PHY 121;
+ fulfill the requirements for graduation;
+ successfully complete the minor in secondary education***

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

***Requirements for the minor in secondary education are listed in the Department of Education course listings.

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.

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**BIOLOGY COURSES**

All courses are four semester hours unless noted.

**Liberal Studies Requirements:** BIO 101, 102, 103, 104, 105, 106, 107, 110 and 521 may be used to satisfy the Scientific Discovery Intellectual Perspective. BIO 102 and ENG 106, BIO 103 and SOC 301, BIO105 and ART105 or BIO 107 and ENG 130 taken together satisfy a Cluster Course requirement.

**BIO 101 Concepts of Biology.** A course for the non-science major. Emphasis is placed upon identifying and studying topics of a biological nature which are relevant to modern society. A laboratory is included. C. Harms, P. Fawley.

**BIO 102 Understanding Evolution.** A cluster course for the non-science major. Historical aspects of organic evolution are examined. The modern genetic theory of evolution as a continuing process is emphasized. Adaptations of organisms to their environments are studied. Biological and philosophical aspects of human evolution are covered briefly. A laboratory is included, with experimentation and field trips to fossil sites and a museum. Students must also register for ENG 106.
**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. P. McCarthy.

**BIO 104 How Our Body Works.** A course for the non-science major. A study of the human body and the functions of its various parts and systems. A laboratory is included, with dissection of the fetal pig. *(Students may enroll in 104 or 106, but not both.)*

**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. P. Fawley. *(Students may enroll in 106 or 104, but not both.)*

**BIO 107 Oceanography.** An integrated study of ocean science approached with a minimum of technical vocabulary. The concepts addressed allow students to understand topics of geological, physical and biological oceanography that are important in life. As an interdisciplinary science, oceanography build on centuries of ideas, myths and facts that have been refined through the work of many people from many nations into reasonable models of nature. Study of ocean science fosters a global awareness and spans the realm of environmental concerns from the upper atmosphere to the abyss of the ocean. Laboratory activities are diverse and include marine geography, physical and chemical properties of seawater, tides, living plants and animals of the ocean and a required field trip to a seaquarium. **Prerequisite:** none. (This course cannot be used as part of the biology major or minor.)

**BIO 110 Foundations of Biology I.** An introduction to basic concepts of biology through experiential learning and skills development. Lectures coupled with investigative laboratories provide exposure to the following areas of concentration: cellular structure and function, genetics, and evolution. Offered Fall Semester. Biology faculty.

**BIO 111 Foundations of Biology II.** A sequel to BIO 110 addressing basic concepts of biology through the use of experiential learning and investigative skills. Lectures coupled with open-ended experimentation explore the following areas of concentration: biodiversity, plant and animal structure and function, and ecology. Offered Spring Semester. **Prerequisite:** BIO 110. Biology faculty.

**BIO 210 Biodiversity.** An in-depth and cross-sectional study of eukaryotic organisms in all major habitats of our world. Pertinent to this course is the evolutionary process which is centered around adaptation, diversity, natural selection and speciation. Topics include paleontology, life histories, survival strategies in feeding and reproduction, and the biochemistry and physics of organismic life. The social, ethical and political consequences of using the planet’s biological wealth will be addressed. Though not itself a phylogenetic treatment of the living kingdoms, this course assumes reasonable knowledge of all major taxa and schemes of taxonomy. A laboratory is included. Offered Fall Semester. **Prerequisites:** BIO 110 and 111. C. Harms.
BIO 211 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. Prerequisites: BIO 110 and 111. J. Balczon.

BIO 212 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, alternate years beginning in 2003. Prerequisites: BIO 110 and 111. J. Robertson.

BIO 220 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. This course will be offered as a cluster course with CHE 381 in odd-numbered years, starting with Spring Semester 2003, and as a stand-alone course in even-numbered years, starting with Spring Semester 2004. Prerequisites: BIO 110 and 111. P. McCarthy.

BIO 221 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. Prerequisites: BIO 110 and 111. P. Fawley.

BIO 222 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 2002 and alternate years. Prerequisites: BIO 110 and 111. When taken together with BIO 223, this course fulfills one concentration requirement (in the area of physiology and cell biology) for biology majors. J. Robertson.

BIO 223 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 2003 and alternate years. Prerequisite: BIO 222. J. Robertson.

BIO 230 Molecular Genetics. A course dealing with the molecular nature of nucleic acids (DNA and RNA) and their functions at the molecular and organismal levels. Topics will focus on nucleic acid structure, function, replication, transmission, and control of expression. The laboratory session is a required component of this class and will explore various molecular and biochemical techniques for isolating, replicating, manipulating, and analyzing nucleic acid sequence. Offered Fall Semester. Prerequisites: BIO 110 and 111. J. Corrette-Bennett.

BIO 231 Genetics. A wide-ranging study of genetic processes, emphasizing concepts in Mendelian genetics, cytogenetics, molecular genetics, populations genetics, and evolution. Additional topics include developmental genetics, genetics of cancer, genetic basis of the immune response, and behavioral genetics. A laboratory is included. Offered Spring Semester. Prerequisites: BIO 110 and 111. P. McCarthy.

BIO 240 Population Ecology. A study of the structure of ecological populations and the processes that affect them. Specific topics include population growth and regulation, intraspecific competition, life history patterns, population genetics, and symbiotic interactions. A laboratory with field work is included. Laboratory exercises stress experimental design and
data analysis. Offered Spring Semester. Prerequisites: BIO 110 and 111. A. Throckmorton. (Also listed as ES 240.)

**BIO 241 Community Ecology.** A study of the structure of ecological communities and ecosystems and the processes that affect them. Specific topics include interspecific competition, predation, food webs, species diversity, succession, biogeography, species conservation, and the flow of energy and materials through ecosystems. A laboratory with field work is included. Laboratory exercises stress experimental design and data analysis. Offered Fall Semester. Prerequisites: BIO 110 and 111. J. Balczon. (Also listed as ES 241.)

**BIO 251 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 ArcGIS, a PC-based GIS software package. A. Throckmorton. (Also listed as ES 251.)

**BIO 310 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 2004 and alternate years. Prerequisite: BIO 210. C. Harms.

**BIO 311 Field Zoology.** A course that builds upon field observation, collection, natural history, behavior and identification of animals. Museum techniques are practiced. This course is designed to primarily study local fauna. The specific groups of animals to be investigated will always encompass insects and vertebrates; however other groups, often determined by student interest, will be studied. A laboratory which emphasizes field work is included. Offered Spring Semester 2003 and alternate years. Prerequisite: BIO 210. C. Harms.

**BIO 312 Field Botany.** Recognition of vascular plants and methods for their identification and classification. This course is designed to study local vegetation and make comparisons with vegetation of other areas. A laboratory with field work is included. Offered Fall Semester 2003 and alternate years. A. Throckmorton.

**BIO 313 Microbial Ecology.** This course is designed to study the local microbial diversity, and to understand the interrelationships of these microbes to each other and to their habitat. Methods of isolation and identification will be stressed. A laboratory is included. Prerequisite: BIO 211. J. Balczon.

**BIO 320 Recombinant DNA.** An advanced study of the basic tools and techniques used to manipulate nucleic acids (primarily DNA). The course will include an overview of systems and organisms that are utilized for genetic engineering, basic recombinant DNA techniques used for research and industry, examples of genetically engineered organisms (microorganisms, plants, animals), and current issues that have evolved from genetic engineering. The laboratory session is an essential component of this class and is required. Offered Spring Semester 2004 and alternate years. Prerequisite: BIO 230. J. Corrette-Bennett.

**BIO 321 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. Offered Spring Semester 2004 and alternate years. Prerequisites: BIO 110 and 111.
BIO 330 **Homeostasis.** 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. Offered Spring Semester 2003 and alternate years opposite BIO 331. **Prerequisite:** BIO 220, 221 or 223. P. Fawley.

BIO 331 **Exercise Physiology.** The study of the exercising mammal, with emphasis on the metabolic, cardiorespiratory, nutritional, and excretory systems. Laboratory sessions are designed to reinforce concepts presented in lecture. Offered Spring Semester 2004 and alternate years opposite BIO 330. **Prerequisite:** BIO 220, 221 or 223. P. Fawley.

BIO 332 **Immunology.** A study of the immune response at the molecular, cellular, and organismic levels. Topics include antigen-antibody reactions, hypersensitivity, tolerance, tumor immunology, autoimmunity, and immunology against viral, microbial, and parasitic pathogens. A laboratory is included. Offered Fall Semester 2003 and alternate years. **Prerequisites:** BIO 110 and 111. P. McCarthy.

BIO 333 **Histology (2 SH).** A microscopic study of cells and tissues, relating their structure to their function. **Prerequisites:** BIO 110 and 111.

BIO 340 **Limnology.** 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 2002 and alternate years. **Prerequisite:** BIO 240 or 241. A. Throckmorton.

BIO 341 **Marine Biology and Biological Oceanography.** 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. The course approaches topics by way of a seminar-lecture-project format. No formal laboratory is included. Offered Spring Semester 2003 and alternate years. **Prerequisite:** BIO 210. C. Harms.

BIO 342 **Symbiosis and Ecology of Disease.** An advanced study of the organismic and ecological interactions among symbiotic relationships and their connections to disease in their hosts. The specific relationships studied are mutualism, commensalism, and parasitism. Parasitic infections, infestations, and diseases of humans (such as AIDS, Lyme disease, and schistosomiasis), non-human animals (of veterinary importance), and plants are detailed. Ecology of disease includes its epidemiology in developed and developing countries. The course approaches topics by way of a seminar-lecture-project format. No formal laboratory is included. Offered Spring Semester 2004 and alternate years. **Prerequisite:** either BIO 210, 211, 240, or 241. C. Harms.

BIO 343 **Fish Biology.** An intensive exploration of the physiology, evolutionary relationships and ecology of fishes, with adaption as an organizing theme. Topics will include the functional anatomy and physiology of gas exchange, ion regulation, locomotion, metabolism and sensation. Phylogenetic relationships of major groups will be highlighted and the roles of fishes in community and ecosystem dynamics will be studied using select examples. A laboratory with field exercises is included. Offered Fall Semester 2003 and alternate years. **Prerequisites:** BIO 110 and 111. J. Robertson.

BIO 355 **Research Design (2 SH).** An introduction to basic experimental and observational methods of biological research. The course emphasizes the principles of experimental design and graphical and statistical data analysis. In addition, students critique published studies
from scientific journals. Offered Spring Semester 2002. **Prerequisites:** BIO 110 and 111, MTH 211. A. Throckmorton.

**BIO 390 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 2002 and alternate years. **Prerequisite:** BIO 110 or consent of instructor. J. Robertson.

**BIO 520, 521 Biology Travel Course.** A combination of on-campus study, usually lasting seven weeks, 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. In 2002-2003: this travel course will be an introduction to tropical ecology, evolution, and natural history of the Galapagos Islands and rainforests of Ecuador. General aspects of the Galapagos Islands, rainforests, and other ecosystems will be studied and discussed along with their contributions to our understanding of evolution and ecology.

**BIO 560, 570, 580, 590 Field Experience/Internship.** An experience planned cooperatively with a research center, laboratory, clinic, government agency, or similar institution. The course does not replace any of the three biology elective courses for a biology major. **Prerequisite:** department approval after submission of an internship application.

**BIO 601, 602 Biology Capstone.** A one-semester, non-laboratory course for seniors with a focus on the theory of evolution and related topics which vary from year to year. Students work collaboratively to research a topic in depth and present a comprehensive report to the class in a format and medium of their choice. **Prerequisite:** senior status. Offered Fall Semester 2002 and Spring Semester 2003. J. Balczon, P. Fawley.

**BIO 610, 611 Advanced Topics.** A course with seminar format that focuses on a discipline of pure or applied biology. A laboratory may or may not be included. **Prerequisite:** major standing or consent of instructor.

**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. 74.) A minimum GPA of 3.500 is required in the major courses to be considered for admission to the Honors Program.

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**Broadcast Communications**  
*(See Communication Studies, Theatre, and Art, p. 105)*

**Business Administration**  
*(See Economics and Business, p. 119)*
Chemistry

Associate Professor: Timothy T. Wooster**
Assistant Professors: Helen M. Boylan, Martha R. Joseph, Timothy A. Sherwood, Peter M. Smith
Part-time Faculty: Katherine A. Shaffer
Chair, Dr. Wooster

Degree Offered: Bachelor of Science
Major Program: Chemistry (Four Tracks: Professional Chemist, Secondary Education Certification, Pre-Medical/Dental, 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 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 believes 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 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 MTH 141 and 151, and PHY 151 and 152. The chemistry program is approved 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 one additional advanced chemistry course and meet an advanced math requirement.


3. Pre-Medical/Dental Track: CHE 117, 180, 230, 261, 262, 333, 351, 352, 381, 600, 601 and 602. In addition, completion of BIO 110 and 111, MTH

** On sabbatical leave Spring Semester 2003.
141 and 151, and PHY 151 and 152. (BIO 230 or 321 is recommended.) See p. 87 for information on the Medical Professions Advisory Committee.

4. **3-2 Chemical Engineering Track**: CHE 117, 180, 230, 261, 262, 333, 351 and 352; MTH 141, 151, 251 and 252; PHY 151 and 152; completion of a Bachelor of Chemical Engineering degree at an accredited engineering school. A 3.00 grade point average is required at the time of application to the engineering school.

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

All junior and senior majors are required to participate in a weekly seminar. Seniors must pass a comprehensive examination prepared by the department that reflects the student learning over the complete four-year program or obtain an acceptable score on the GRE chemistry examination.

**The Minor in Chemistry**: Requirements for a minor in chemistry are CHE 117, 180, 230, 261, 262, 333, and either 381 or 351 and 352. In addition, completion of MTH 141 and 151, and PHY 151 and 152.

**Pre-Professional Programs**: See p. 86.

**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 110), the requirements for graduation listed on p. 67, and successfully complete the minor in secondary education. Requirements for this minor are listed in the Department of Education course listings.

For those students who wish to be certified in general science, the following options are available:

1) Major in chemistry in the Secondary Education Certification Track
   
   plus
   
   BIO 111
   GEL 121
   PHY 121

2) Major in environmental science
   
   plus
   
   GEL 121
   PHY 121

3) Major in neuroscience
   
   plus
   
   GEL 121
   MTH 141
   PHY 121, 151, 152

The prerequisites for admission to the Senior Block are a cumulative GPA of 3.00 in all college work and 3.00 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.

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CHEMISTRY COURSES

All courses are four semester hours unless noted.

Liberal Studies Requirements: CHE 101, 111 or 117 may be used to satisfy the Scientific Discovery Intellectual Perspective.

CHE 101 Our Chemical World. An investigation of a number of areas of everyday life and some chemical factors that have significant effects on our lives. Chemistry interacts with other scientific, social, political and economic factors. Examples include our use of energy, pharmaceutical drugs, water, use of non-renewable resources, and waste disposal. The laboratory emphasizes investigation of systems, collection of data and observations, and devising logical explanations. (This course cannot be used as part of a chemistry major or minor. Elementary education majors may use this course to meet the physical science requirement.) H. Boylan, M. Joseph, T. Sherwood, T. Wooster.

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. H. Boylan, M. Joseph, P. Smith, T. Wooster.

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. H. Boylan, M. Joseph, P. Smith, T. Wooster.

CHE 180 Chemistry of the Elements. A study of periodicity, ionic and metallic solids, bonding in small molecules and solids, non-aqueous systems, and the systematics of the chemistry of the elements. The laboratory includes the synthesis and analysis of inorganic compounds, investigation of their properties, and communication of the results. Offered Spring Semester. Prerequisite: CHE 117 with a grade of D or better. 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. Offered Spring Semester. Prerequisites: CHE 117, and MTH 131 or 141. T. Wooster. (Also listed as ES 230.)
CHE 261, 262 Organic Chemistry. A study of the various classes of carbon compounds and their physical and chemical properties. The mechanisms of reactions used in synthesis will be emphasized. An introduction to spectroscopic, chromatographic and other instrumental and chemical techniques is included. The laboratory program will introduce skills and techniques used in the synthesis, separation, and analysis of organic compounds. Offered Fall and Spring semesters. Prerequisite: CHE 117. H. Boylan, T. Sherwood.

CHE 333, 334 Physical Chemistry. A study of the behavior of matter, both macroscopic and microscopic. Topics include elementary quantum mechanics, chemical bonding, atomic and molecular spectroscopy, time-dependent processes, laws of thermodynamics, free energy, states of matter, solutions, and chemical equilibrium. Prerequisites: CHE 117, PHY 152 and MTH 151. 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. Prerequisites: CHE 230 and PHY 152. T. Wooster.

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 basic electronics, electrochemistry, various forms of spectroscopy and chromatography, advanced synthetic techniques, and other topics. The course also includes writing a research proposal based on a comprehensive literature search and experimental design for the senior project, which will be completed in CHE 600. Offered Fall and Spring semesters, respectively. Prerequisites: CHE 230 and CHE 262. H. Boylan, M. Joseph, T. Sherwood, T. Wooster.

CHE 381 Biochemistry. A study of the chemistry of carbohydrates, proteins, lipids, and nucleic acids, and a survey of the major pathways of metabolism. A laboratory which emphasizes techniques for the separation, analysis, and characterization of biological substances is included. Offered Fall Semester. Prerequisite: CHE 261. T. Sherwood.

CHE 391 Advanced Inorganic Chemistry. A study of symmetry and elementary group theory with applications to the analysis of vibrational spectra; organometallic compounds and catalysis, inorganic ring systems and polymers, electronic spectra of coordination compounds, and bioinorganic chemistry. Offered Fall Semester. Prerequisites: CHE 180, CHE 334. 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 334.

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

CHE 560, 570, 580, 590 Field Experience/Internship. Prerequisites: CHE 230 and CHE 262 and departmental approval of a proposal prepared by the student.

CHE 600 Senior Research (2 SH). An independent senior research project that integrates previously learned techniques in the investigation of a chemical problem. The initial design of the project and written research proposal is accomplished during CHE 352. After conducting the project and completing data collection, the term ends with the preparation of a first draft of the senior thesis. Prerequisite: CHE 352. H. Boylan, M. Joseph, T. Sherwood, P. Smith, T. Wooster.
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. During CHE 602, the student shall finalize the senior thesis based on the laboratory research performed in CHE 600 and present the thesis in writing, and orally, both to the department, and at a professional meeting. Offered Fall and Spring semesters, respectively. Prerequisite: senior standing. H. Boylan, M. Joseph, T. Sherwood, P. Smith, T. Wooster.

CHE 610, 611 Advanced Topics. Subject may be advanced biochemistry, coordination chemistry, electrochemical analysis, heterocyclic molecules, macromolecules, spectroscopy, polymers, quantum chemistry, or solid state chemistry. Prerequisites: major standing and permission of professor.

CHE 620, 630, 640, 650 Independent Study. Prerequisites: CHE 230 and CHE 262 and departmental approval of a proposal prepared by the student.

CHE 660, 670, 680, 690 Honors Project. See p. 74. Prerequisites: honors status and departmental approval after submission of a prospectus.

Geology

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 along Lake Erie and in Pittsburgh.

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 the mountains of West Virginia.

Childhood Development

(Minor program only—See Psychology, p. 209)

Christian Education

(See Religion, History, Philosophy and Classics, p. 214)

Classics

(See Religion, History, Philosophy and Classics, p. 228)
Communication Studies, Theatre, and Art

Professors: Peggy L. Cox, Kathy Koop**
Associate Professor: David L. Barner
Assistant Professor: Scott A. Mackenzie
Instructors: James L. Cherney, Eileen E. Hendrickson, Bradley L. Weaver
Visiting Instructor: Colleen Burke Deisler
Part-time Faculty: Keith F. Corso, Richard J. DiGia, Cynthia Snodgrass Jones, Paul H. Kimpel, James P. LaLumia, Walter E. Scheid
Chair, Dr. Barner

Degree Offered: Bachelor of Arts
Major Programs: Broadcast Communications, Fine Art, Media Art, Speech Communication, Theatre
Minor Programs: Broadcast Communications, Fine Art, Media Art, Speech Communication, 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 WWNW-88.9 FM and Cable 9-TV will be coordinated to provide students with a theoretical background as well as practical performance skills. WWNW-88.9 FM and Cable 9-TV 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, 120-123, 251, 253, 307, 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. In addition, the broadcast communications major is required to complete the following courses outside the major: SPE/THE 151, PS 101 or 102, and ART 203. 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 usually conducted spring of the sophomore year after the completion of BC 102, 111, 251, and 253.

The Minor in Broadcast Communications: The minor in broadcast communications requires BC 102, 111, 120-121, 251, 253 and eight semester hours of electives. Only four elective semester hours may be via an internship.

** On sabbatical leave Spring Semester 2003.
BROADCAST COMMUNICATIONS COURSES

All courses are four semester hours unless otherwise noted.

Liberal Studies Requirements: BC 112 may be used to satisfy the Visual and Performing Arts Intellectual Perspective. BC 253 meets the Humanities and Culture Intellectual Perspective. BC 112 and ENG 112 taken together satisfy a Cluster Course requirement.

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 WWNW-88.9 FM is required. (Also listed as THE 103.)

BC 111 Writing for Radio and Television. Introduction to the fundamental techniques of broadcast news writing and continuity writing (commercials, promotional announcements, public service announcements). A lab is included which requires writing copy for WWNW-88.9 FM and Cable 9.

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 120-123 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. 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 sophomore status, completion of BC 102, or 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 SPE 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 111 and junior status or consent of instructor. This course is also beneficial to business administration and public relations majors.

**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 Cable 9 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 307 Broadcast Journalism.** Introduction to the ethical and practical considerations facing reporters, writers, editors, and producers of broadcast journalism including the processes of evaluating news sources, developing criteria for news selection, and understanding the legal aspects of broadcast journalism. Also includes production of TV news packages, radio actualities, and news script preparation. News Lab required. Prerequisites: BC 102, 111, and 251.

**BC 308 Television Studio Producing and Directing.** Advanced study of the skills needed to be a producer/director of in-studio television productions. Students will produce and direct news and public affair programs. Extensive work is required at the Cable 9 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 Cable 9’s Coach’s Corner and Inside Lawrence County. (Weekend and evening work required.) Prerequisites: BC 102 and 251 or consent of instructor.

**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 resume 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 ex-
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, 621 Independent Study.**

### Speech Communication

**The Major in Speech Communication:** The speech communication major provides a broad-based overview in communication studies, amenable to a wide variety of occupational choices. In keeping with the goals of the National Communication Association, the discipline studies the theory and skills of human interaction, including research, criticism, and everyday application of the artistic, humanistic, and scientific principles of communication.

The major emphasizes the acquisition of attractive, effective, and ethical traits and moral characteristics that are appropriate for communication professionals. 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 speech communication are required to complete 44 semester hours as follows:

- SPE 111, 151, 201, 601 and 602.
- One course in Specialized Theory: SPE 202 or 205.
- One course in Specialized Practice: SPE 203 or 251.
- One course in Advanced Practice: SPE 302 or 303.
- One course in Advanced Theory: SPE 404 or 405 or 410.
- At least three speech communication electives. Students may take additional courses in any of the above four areas as electives. Only one of these three electives (four semester hours) may be an internship. Only one of these three electives may be four Speech and Debate Practicum credits.

Additionally, students must pass a comprehensive test about the communication discipline and its content (taken as part of SPE 601) in order to graduate. Students will need to declare the major sometime during their first or second year at Westminster.

Students are encouraged to complete a minor.

**The Minor in Speech Communication:** The minor in speech communication requires completion of SPE 111 and any additional five SPE electives. Only one of these five electives (four semester hours) may be an internship. Only one of these five electives may be four Speech and Debate Practicum credits.
SPEECH COMMUNICATION COURSES

All courses are four semester hours unless noted.

**Liberal Studies Requirements:** SPE 111 satisfies First-Year requirements. SPE 201, 202, and 204 may be used to satisfy the Social Thought and Tradition Intellectual Perspective. SPE 205 and 302 may be used to satisfy the Humanity and Culture Intellectual Perspective. SPE 202 and SOC 102 taken together satisfy a Cluster Course requirement.

**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.

**SPE 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.*)

**SPE 201 Interpersonal Communication.** Designed to examine communication on a one-to-one basis. The class will focus on such things as the revelation of self, encoding and decoding verbal messages, and nonverbal cues.

**SPE 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.

**SPE 203 Advanced Public Speaking.** Theory and practice in effective oral communication. The course covers basic problems of composition and delivery.

**SPE 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.*)

**SPE 206 Listening.** Consideration of listening behavior as it relates to successful communication. The course covers group dynamics, interaction, and responses to visual and oral stimuli.

**SPE 207 Business and Professional Communication.** A micro 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. One business presentation is required.
SPE 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. (Also listed as THE 251.)

SPE 302 Argumentation and Debate. In this course students will learn argumentative and critical skills by engaging traditional and modern argument theory, practicing advanced research activities, and learning the basic techniques of competitive academic debate. Students will develop, analyze, and critique arguments, and will compete in debate rounds.

SPE 303 Public and Personal Persuasion. This course encompasses the theories of persuasion and sales. Students will apply persuasive theory through practical applications such as oral and written persuasive presentations and sales exercises. Attention will be given to the application of persuasion theory to specialized fields, such as law, politics, religion, and business.

SPE 351, 352, 353, 354, 355, 356, 357, 358 Speech and Debate Practicum. Active participants on Westminster’s Speech and Debate team may receive a one hour practicum credit per semester through quality performances, exhibiting dedication to the program, abiding by team regulations, and remaining in good academic standing in their other courses. Prerequisite: SPE 203 or SPE 302 or SPE 251 or instructor consent.

SPE 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.

SPE 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.

SPE 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.

SPE 560-590 Field Experiences/Internship.

SPE 601, 602 Communication Research (2 SH). The capstone courses comprehensively synthesize and analyze research in the field of communication. They require students to (a) pass a comprehensive test about the communication discipline and its content (required for graduation in speech communication), and (b) explore an important communication topic through a significant research project. General research paradigms, as well as qualitative and quantitative research methods are stressed. Students will prepare for the research project in the fall, and conduct research in the spring. All students will be highly encouraged to present their projects at a communication conference. Prerequisite: senior status.

SPE 620, 630, 640, 650 Independent Study.

SPE 660 Honors.
Theatrical arts

**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. It is anticipated that most theatre majors will pursue additional theatre graduate study.

Required courses for the major are THE 102, 111, 112, 151, 321, 351, and 601 and one of the following: THE 202 or THE 401 or THE 402, or an independent study in advanced technical theatre. In addition, the theatre major is required to take eight semester hours in theatre electives and participate as part of the cast or crew for each main stage production.

**The Minor in Theatre:** A minor in theatre shall consist of six courses, including THE 101, 102, and 111. THE 561–564 may not be included in the minor.

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**THEATRE COURSES**

All courses are four semester hours unless noted.

**Liberal Studies Requirements:** THE 101, 102, 111 and 251 may be used to satisfy the Visual and Performing Arts Intellectual Perspective. THE 351 satisfies the Humanity and Culture Intellectual Perspective.

**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. Lab required.

**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. 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 production is 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 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 SPE 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. Lab required. **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. Lab required. **Prerequisite:** THE 202.

**THE 204 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 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. (Also listed as SPE 251.)

**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 112.

**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 410 Advanced Topics.

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

THE 601, 602 Theatre Capstone. Specialized studies in theatre. Seniors will prepare a final senior performance, product or study.

THE 660, 670, 680, 690 Honors Research. See p. 74.

**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, 203, 207, one art history, 601, 602, and one 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 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 101, 102, 560, 601, 602, and 30 semester hours (three quarters) at the Art Institute majoring in a faculty approved media program such as video production, photography, multimedia and web design, or media arts and animation. BC 253, CS 103, PR 101 and PR 202 are required outside the major. ART 101, 102 and CS 103 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, 203 or 207 and one art history course.
Minor in Media Art: 32 semester hours
Required courses: ART 101, 102, 109, 207, 203 or 306, BC 102, BC 251, and BC 253. This minor may be completed on campus.

ART COURSES

All courses are four semester hours unless noted.

Liberal Studies Requirements: ART 107, 110, 206, 210, 225 may be used to satisfy the Humanity and Culture Intellectual Perspective. ART 101, 102, 104, 106, 200, 201, 202, 203, 205, 211 and 212 may be used to satisfy the Visual and Performing Arts Intellectual Perspective. ART 105 and BIO 105 taken together, ART 211 and ENG 105 taken together, or ART 212 and CLC 112 taken together, satisfy a Cluster Course requirement.

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, think, and feel through the language of drawing. A wide range of techniques are introduced as well as related elements of art history and aesthetics. Spring Semester. P. Cox.

ART 104 Beginning Oil Painting. This is a fundamental course in the creative 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. Fall Semester. P. Cox.

ART 105 Cluster Course - Illustration and Design: The Art and Science of Nature (paired with BIO 105). This is a cluster course for the non-major and major. Students will learn how scientific discoveries are made and they will use the scientific method to investigate biological systems. Ecological concepts will be studied. Students will learn basic design and illustration methods in art using drawing and watercolor. P. Cox.

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. P. Cox.
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 acrylic or 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 203 Black and White Photography. A studio course in photography with an emphasis upon developing aesthetic vision and technical skills. Students will learn to use the camera as a fine art tool first with some exercises exploring photojournalism. Traditional and contemporary trends are presented through exercises and lectures on the history and issues of the medium. Students will learn to use a 35mm camera, process film and make prints. Additionally, students will develop skills in aesthetics related to art criticism. Students must supply an approved 35mm camera, with a 50mm+ lens. Fall and Spring semesters. P. Cox.

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. P. Cox.

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. P. Cox.

ART 211 Cluster Course—Who Am I: Search for Identity in Visual Arts (paired with ENG 105 of same title). Through unique activities of object making and storytelling, humanity seeks to understand themselves and their individual relationships to the environment and cultures. This course will focus upon studio art formats of visual journals and the self-portrait 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. K. Koop (ART) and J. Erhardt (GER).

ART 218 Crafts Around the World. A basic studio course for students to explore the visual properties of three-dimensional form through the history and production of world crafts. Students will investigate the fundamental principles and techniques associated with, but not limited to basketry, textiles, jewelry, ceramics and woodworking. Students will be introduced to the stylistic variations of each form as it relates to the diversity of cultures through slide presentations and studio production. Studio concepts will explore both functional and nonfunctional objects. Students will develop critical thinking skills and a greater appreciation of the world’s diversity through its crafts. Staff.

ART 220 Studies in Art History. Offerings under this title will vary from semester to semester. It is designed to accommodate special topics in the development and history of art. It will be offered from beginning to more advanced levels. Check the class schedule for the level and focus of this course. Staff.

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. *Prerequisite:* ART 201 or 104. 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.

**ART 305 Intermediate Drawing: Themes and Dreams.** An advanced level of drawing that will explore issues and techniques on a more conceptual level. A variety of contemporary media will be used as well as both conventional and unconventional formats. Students will have structured assignments but will be expected to push the boundaries of expectations in ideas and production. This course will be offered concurrently with ART 102. **Prerequisite:** ART 102 or 205. P. Cox.

**ART 306 Cameras and Computers.** This studio course will investigate formal and aesthetic relationships of traditional and digital photography. Students will learn how to manipulate the traditional photographic print through computer graphics. Additionally, students will be introduced to digital manipulation as an art form as well as to how it is related to graphic design. The language of art and design and design analysis will also be a major component of this course. **Prerequisite:** ART 109 or 203 or BC 251 or permission of instructor. Prior knowledge of basic photography and basic computer literacy is required. Spring Semester. Staff.

**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 and visiting artists will provide direction and supervision. Presentation of work will be in December for approval of spring exhibition. 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 in Seminar as a graduation requirement. There are no incompletes for any segment of Seminar. 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.
ART 660, 670, 680, 690 Honors Research. See Honors description on p. 74 and submit proposal to a supervising faculty in the art department. Proposal must then have approval of department chair.

Computer Information Systems
*(See Mathematics and Computer Science, p. 153)*

Computer Science
*(See Mathematics and Computer Science, p. 152)*

Criminal Justice
*(Concentration only —See Political Science and Sociology, p. 202)*

Cultural Studies
*(Minor program only—See Modern Languages, p. 158)*

Economics and Business

Professors: Ronald P. Bergey, Daniel E. Fischmar, Gail L. Miller, Paul G. Wozniak
Associate Professors: Kent D. Carter, Tom E. Rosengarth
Instructors: Mark J. Ashe, Betty P. Talbert
Part-time Faculty: Walter F. Dunlavey, Tat P. Fong
Chair, Mr. Rosengarth

**Degree Offered:** Bachelor of Science

**Major Programs:** Accounting, Business Administration, Economics

**Interdisciplinary Programs:** Financial Economics, International Business

**Minor Programs:** Accounting, Economics, Human Resources, Marketing

The objective of the Department of Economics and Business is to provide a creative learning environment which stimulates critical thinking, analysis and presentation. Accordingly, the department offers programs in economics, business, and accounting that prepare students for careers in business and government or to pursue graduate study in economics, business, law, or other managerial disciplines.

The courses listed in the accounting major meet the requirements for students to sit for the CPA examination in the State of Pennsylvania after their senior
year. Generally, courses are offered that meet the requirements in Ohio and states that require 150 semester hours for the CPA licensure. Any student who intends to qualify for the CPA examination should discuss this with Mr. Wozniak by the third year, particularly if the certification is in New York, Ohio, or other states than Pennsylvania because the requirements by state vary in both courses that are required and the semester hours necessary for licensure.

Permission to enroll in advanced sequential economics, business, and accounting courses will be based upon the satisfactory completion (a C- grade or better) of the necessary prerequisite courses.

All courses required for the major and minor (including supporting courses) require a grade of C- or better and an overall average of 2.000 in the major. No credit toward a major can be given for any course graded on an S/U basis.

For all major programs, the mathematics requirement may be satisfied by completing with a C- or better MTH 131, MTH 101–102, or MTH 151.

**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.

Students intending to become a licensed CPA in Pennsylvania should consider additional coursework so that the total hours sum to 150 semester hours. This reduces the experience requirement for licensure from two years to one year. Students who graduate with less than 150 semester hours must demonstrate two years of experience before becoming a licensed CPA.

**Business Administration Major:** BA 140, 220, 305, 310, 325, 350, 601 (capstone) or 602 (capstone); one from the following: 320, 330; and eight semester hours selected from the business administration course offerings (except Field Experience/Internship). ECO 150 and one additional four semester hour economics course (except ECO 220 or 330); ACC 201, 202; MTH 131 or equivalent are required supporting courses.

**Concentrations** in finance, health administration, human resources management, international business and marketing may be designed by taking a grouping of related elective courses; however, a concentration is not required.

**Finance Elective Concentration:** BA 300, 380, 420; ECO 340

**Health Administration Elective Concentration:** BA 350, 360, 371; ECO 390

**Human Resources Management Elective Concentration:** BA 260, 360, 361; ECO 380

**International Business Elective Concentration:** BA 410, 420, 602; ECO 380

**Marketing Elective Concentration:** BA 230, 390, 410; PR 202
**Economics Major:** ECO 150, 220, 310, 320, 330, 601 (capstone), and 12 semester hours selected from the economics course offerings (except Field Experience/Internship); MTH 131 or equivalent; ACC 201 or BA 160; ACC 202 or BA 350.

**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, or BA 160; BA 260, 310, 360, 361; and one statistics course offered through any academic department.

**Marketing Minor:** ECO 150; ACC 201 and 202, or BA 160; BA 305; two of the following three courses: BA 390, BA 410 and PR 202; 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 minor in economics and accounting is 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.

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**ACCOUNTING 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 recording, 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 accountant’s role in the basic concepts 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. *Prerequisite:* ACC 202 for ACC 305, and ACC 305 is prerequisite for ACC 306.
ACC 310 Federal Income Taxation. A study of the current federal income tax law as it pertains to individual taxpayers. 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 202.

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 (3–4 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, and consent of department.

ACC 601 Accounting Theory. 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. Prerequisites: ACC 306, 310, 350, 410 or permission.

ACC 610, 611 Seminar/Advanced Topics (2–4 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 (2–4 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. (Required 3.300 average overall.) See p. 74.

BUSINESS COURSES

All courses are four semester hours unless noted.

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 Introduction to Financial Decisions. An introductory course on the operation of an accounting system and interpretation of financial statements. Routines used in financial decision making, such as break-even analysis, capital budgeting, and budget analysis, are presented also. This course cannot be used for credit with any major offered within the Department of Economics and Business. Prerequisite: sophomore standing.
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 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 260 Labor Relations and Workplace 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. Prerequisite: ECO 150, BA 360 or by permission.

BA 300 Managerial 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 treatment of the business activity that directs the flow of all goods and services from producer to consumer. The managerial approach stresses the formulation of a marketing strategy. Prerequisite: 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 320 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 325 Management Information Systems. An introduction to the managerial, behavioral, and technical issues that determine the effectiveness of information systems at the personal, work group, and organizational levels of a business. These issues are studied through readings, case studies, and application of systems development methodologies to prototypical management information and decision support systems. Prerequisites: BA 220, ACC 202 and junior standing.

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.

BA 330 Regression Analysis and Modeling. 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 either BA 220 or MTH 211 or 301. (Also listed as ECO 330.)
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: ACC 202 and ECO 150.

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: junior standing.

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: BA 160 or at least one accounting course, ECO 150, and BA 360.

BA 371 Healthcare Organizations and Financing. A review of the changing influences on the variety of sectors in American healthcare provision, organization, and financing. The Department of Economics and Business recommends that non-economics and business majors taking economics and business healthcare offerings consider taking BA 310 and BA 350 to supplement their understanding of business administration. Prerequisite: BA 160 or ACC 201.

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 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 International Marketing. 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. Prerequisite: junior standing.

BA 420 International Finance. Analyzes some of the problems faced in the financial management of internationally oriented firms. Areas to be investigated include political and economic problems of balance of payments, foreign investment, working capital management and long-term management and long-term capital management for multinational corporations, international accounting, and international taxation. Prerequisites: ACC 202, ECO 150, or consent of instructor.

BA 560, 570, 580, 590 Field Experience/Internship (3–4 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, and consent of department.

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: senior standing and BA 305, 310, 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. **Prerequisite:** senior standing in business, international business or by permission.

**BA 610, 611 Seminar/Advanced Topics (2–4 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 (2–4 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.** (Required 3.300 average overall.) See p. 74.

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**ECONOMICS COURSES**

All courses are four semester hours unless noted.

**Liberal Studies Requirements:** ECO 150 may be used to satisfy the Social Thought and Tradition Intellectual Perspective.

**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 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 BA 220.)*

**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 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 MTH 211 or 301. *(Also listed as BA 330.)*

**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 360 International Economics.** An introduction to international economic relations. The course examines such topics as the gains from international specialization and exchange, the correction of imbalances in international trade flows, and the effects and purposes of restrictions on trade. Contemporary international trade problems are also studied. **Prerequisite:** ECO 150.

**ECO 370 Environmental and Natural Resource Economics.** A study of how the economics system depends on the environment and how the environment is influenced by the economics system. Topics include: economics analysis of common property; economic analysis of depletable and renewable natural resources; the population problem; economics of pollution; and the economic valuation of environmental goods. **Prerequisite:** ECO 150.

**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 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 (3–4 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, and consent of department.

**ECO 601 Advanced Topics: The Power and Limitations of Economics.** 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, 220 (or equivalent) and two economics courses beyond ECO 150.

**ECO 610, 611 Seminar/Advanced Topics (2-4 SH).** A study of relevant topics and techniques pertaining to the current business and economics issues.

**ECO 620, 630, 640, 650 Independent Study (2–4 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.** (Required 3.300 average overall.) See p. 74.
Education

Associate Professors: Charlene Klassen Endrizzi, William J. Evans, Darwin W. Huey, M. Eileen Morelli
Assistant Professor: Linda P. Domanski, Patrick D. Krantz
Instructor: Amy H. Camardese
Visiting Instructor: Joyce E. Hoellein
Part-time Faculty: Ronee C. Christy, Stanley Magusiak, David P. McCommons, Mary H. McCoy, Barbara I. Quincy, Mary M. Reames, Karen M. Tarka
Chair, Dr. Huey

Degree Offered: Bachelor of Arts
Major Program: Elementary Education
Minor Program: Secondary Education

The objective of the Department of Education at Westminster is to prepare qualified and effective teachers at both the elementary and secondary levels.

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 the competencies through course work, personal advising, supervised tutoring, public school activities, field experiences, and a student teaching assignment.

Students majoring in elementary 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 certificates 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 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 before or during the Fall Semester of the sophomore year; (2) a major 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 junior check-out form in the Spring Semester of the junior year; (5) an application for state teaching certification during the final semester; 6) current negative tine test prior to activities in the public schools; and 7) appropriate legal clearances prior to activities in the public schools.

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

Certification Testing: The Commonwealth requires a battery of examinations for teacher certification candidates. Pre-professional Skills Test: reading, writing, mathematics, and the Fundamental Subjects: Content Knowledge Test and Principles of Learning and Teaching K-6 tests of the Praxis Series Examination must be passed prior to enrolling in the elementary education Junior Block. The Pre-professional Skills Test: reading, writing, and mathematics, and the Principles of Learning and Teaching 7-12 test 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 specialty area test before the Fall Semester of the senior year. Secondary education minors should complete the specialty area test before Fall Semester of the senior year. Scores on the specialty area tests for secondary education minors should be filed in the Department of Education office (Old Main 304) by Aug. 1 prior to 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


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<tbody>
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<td>Elementary Education</td>
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<td>95%</td>
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<td>88%</td>
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</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. By the Spring Semester of the sophomore year, they must file a completed major sheet with the registrar.

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 202 Inclusion
EDU 204 Educational Technology
EDU 311 Teaching Science in the Elementary School*
EDU 562 Field Experience-Elementary
PSY 231 Educational Psychology

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

REQUIRED CERTIFICATION COURSES

Mathematics … six credits
Life Science … one course … recommended BIO 101
Physical Science … one course … recommended PHY 101
Geography … GEO 101
American History … one course
Fine Arts … one course from Art, Music or Theatre … recommended MUS 180
English Composition and Literature … six credits

PREREQUISITES TO THE JUNIOR BLOCK

The Junior Block is taken in either the Fall Semester or Spring Semester of the junior year.

Other requirements for entering the Junior Block are: 1) a minimum all-college GPA of 3.000; 2) a minimum GPA of 3.000 in EDU 201, 202, 204, 311, PSY 231; 3) completion of the Writing, Oral Communications and Inquiry portions of the Liberal Arts Core; 4) completion of the mathematics requirement with a grade 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 Test: read-
ing, writing, mathematics, and the Fundamental Subjects: Content Knowledge Test and Principles of Learning and Teaching K-6 tests of the Praxis Series Examination; 7) presentation and approval of a portfolio which includes experiences with children/adolescents; and 8) the recommendation of a departmental screening panel during the Spring Semester 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.

**JUNIOR BLOCK**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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<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>
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</table>

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

**STUDENT TEACHING—ELEMENTARY**

Student Teaching is normally completed in the Fall Semester of the senior year.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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</thead>
<tbody>
<tr>
<td>EDU 601</td>
<td>Student Teaching and Seminar—Elementary (16 semester hours)</td>
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</tbody>
</table>

**OTHER INFORMATION FOR ELEMENTARY EDUCATION**

Recommended electives include EDU 203, 205, and 572 and PSY 221 and 411.

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

<table>
<thead>
<tr>
<th>Art</th>
<th>Computer Science</th>
<th>Music</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biology</td>
<td>English</td>
<td>Psychology</td>
</tr>
<tr>
<td>Broadcast</td>
<td>Foreign Languages</td>
<td>Childhood Development</td>
</tr>
<tr>
<td>Communications</td>
<td>History</td>
<td>Speech</td>
</tr>
<tr>
<td>Chemistry</td>
<td>Mathematics</td>
<td>Theatre</td>
</tr>
</tbody>
</table>
or an elementary education minor in general science, as set out below:

**General Science Minor (24 semester hours)**

- Required Biology 4 SH
- Physics 4 SH
- Geology 4 SH
- Additional 12 semester hours from biology, chemistry or physics.

**SUCCESSFUL COMPLETION OF THE PROGRAM INCLUDES:**

- Satisfactory completion of the prescribed coursework
- Qualifying scores on the appropriate Praxis Series Examinations
- Graduation
- Recommendation for Pennsylvania certification

**Secondary Education**

**The Minor in Secondary Education.** Students who plan to qualify for the secondary school teaching certificate declare a minor in secondary education before or 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>
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</thead>
<tbody>
<tr>
<td>College level mathematics</td>
<td>six</td>
</tr>
<tr>
<td>English Composition and Literature</td>
<td>six</td>
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<tr>
<td>EDU 201 Foundations of Education</td>
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<td>EDU 351 Reading in the Content Area</td>
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<tr>
<td>PSY 231 Educational Psychology</td>
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<tr>
<td>EDU 582 Field Experience—Secondary</td>
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<tr>
<td>EDU 451 Teaching in the Secondary School</td>
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</tr>
<tr>
<td>EDU 452 Student Teaching and Seminar—Secondary</td>
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<tr>
<td>Recommended courses:</td>
<td>PSY 221 and 411</td>
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</tbody>
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Admission to EDU 451 which is offered in the Fall Semester of the senior year is dependent upon: 1) GPA of 3.000 in EDU 201, 351, 582 and PSY 231; 2) a careful review of the student’s personal qualifications; 3) the recommendation of the student’s major department; 4) passing the Pre-professional Skills tests: reading, writing, and mathematics, and Principles of Learning and Teaching 7-12 tests of the Praxis Series Examination; 5) a minimum cumulative GPA of 3.000; 6) a minimum GPA of 3.000 in both the major and the secondary education minor; 7) presentation and approval of a portfolio which includes experiences with
children/adolescents and; 8) 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 areas test of the Praxis Series Examination prior to admission to EDU 452 Student Teaching and Seminar—Secondary. Scores on the specialty area tests should be filed in the Department of Education office (Old Main 304) by Aug. 1 prior to the senior year. Students who have successfully completed EDU 451 and student teaching 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 earlier 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.

**EDUCATION COURSES**

All courses are four semester hours unless noted.

**Liberal Studies Requirements:** EDU 201 may be used to satisfy the Social Thought and Tradition Intellectual Perspective.

**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. L. Domanski.
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. C. Endrizzi.

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. LOGO will be used as a programming language with emphasis on applied use in the elementary and middle school. Commercial software is examined as they apply to computer assisted instruction. 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. L. Domanski.

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. 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. It acts as a laboratory for the Department of Education, supplementing its curriculum. (Also listed as ENG 220.)

EDU 301 Teaching of Mathematics in the Elementary School. Introduction to the content and methods of mathematics in the elementary school with emphasis on standards suggested by the National Council of Teachers of Mathematics. Careful attention is given to the role of the teacher in the instructional process. Problem solving, the role of modern technology in instruction, modern trends in mathematics, research, and application of skills in the subject areas are included. The use of manipulative materials in laboratory situations and group problem solving are developed as classroom models of instruction. J. Hoellein.

EDU 302 Language Arts and Children’s Literature in the Elementary School. Principles of teaching children in the communication arts of listening, speaking, writing, and reading. The effective utilization of children’s literature is integrated into the language arts and other areas of the curriculum. E. Morelli.

EDU 303 Teaching of Reading in the Elementary School. A study of theories, practices, techniques, and materials used in the teaching of developmental reading. Practicum experience is included. 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 Junior Block. Economics strand included. 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. Krantz.

**EDU 351 Reading in the Content Areas.** A junior level course intended for but not limited to secondary education minors. The course is an overview of the reading process with emphasis on reading strategies for the separate content areas. Opportunities to observe and/or work with young people are included in this course. 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.

**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.

**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 at Westminster College and have at least 2.500 GPA.

**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 at Westminster College and have at least a 2.500 GPA.

**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 evening/Saturday morning 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. 74.
English and Public Relations

*Professors: Elizabeth A. Ford*, James A. Perkins, Richard L. Sprow*
Associate Professors: Nancy A. Macky, David G. Swerdlow, Ross A. Wastvedt
Assistant Professors: Jennifer M. DiLalla, Bethany Hicok, Deborah C. Mitchell
Instructors: Delores A. Natale, Suzanne G. Prestien
Part-time Faculty: Evann G. Garrison, Sarah K. Huey, Sandra L. Panella,
   James A. Raykie Jr.
Chair, Dr. Perkins

Degree Offered: Bachelor of Arts
Major Program: English, Public Relations
Minor Program: English, Public Relations, Writing
Teacher Certification: 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.

English

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 Thomp-

* On sabbatical leave Fall Semester 2002.
son-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 course (ENG 240) has prerequisites.

**The Major in English:** All English majors must complete 40 semester hours, as follows:

1. ENG 240 (Seminar Introduction to Literary Studies)
2. ENG 250 (Introduction to Critical Theory and Practice)
3. 2 ENG 300s (Studies in Context)
4. 2 ENG 400s (Seminars)
5. 1 Additional ENG 300/400 level course
6. 1 ENG 560 (Field Experience/Internship)
7. 1 ENG 601 (English Capstone: Advanced Study I)
8. 1 ENG 602 (English Capstone: Advanced Study II)

In addition, majors may select an additional eight semester hours as electives. All English courses, including ENG 100–151, can count as electives.

**The Guidelines for College Honors in English:** Students interested in College Honors in English should contact the chair of the department in their sophomore year for application procedures. See also Honors, Honors Project, and Independent Study (p. 74).

**Grading**

Students receive a **letter grade** at the end of each semester they are registered for Honors work.

**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
2. ENG 250
3. 2 ENG 300s
4. 2 ENG 400s

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.

**Public Relations:** See p. 139 for major and minor program information.
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, 400 (2 SH), and 401 (2 SH).

Hours to complete the minor may be earned from taking 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.)

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. 67 and the minor in secondary education. Requirements for the minor are listed under the Department of Education, p. 130.

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.

ENGLISH COURSES

All courses are four semester hours unless noted.

Liberal Studies Requirement: ENG 101–151 may be used to satisfy the Humanity and Culture Intellectual Perspective. ENG 102 and PSY 222; ENG 105 and ART 211; ENG 106 and BIO 102; ENG 109 and HIS 222; ENG 110 and HIS 127; ENG 115 and REL 161; ENG 119 and HIS 122; or ENG 120 and PS 214 may be taken together to satisfy a Cluster Course requirement.

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.

ENG 220 Teaching of Literature and Grammar in Secondary Schools. A course in teaching secondary literature and grammar. Students wishing to teach at the secondary school level will survey required course texts and develop strategies for teaching literature, grammar, and writing. In the process, students will share research into secondary sources in these areas.
They will also design group projects and present them to their peers. This course allows future secondary English teachers to combine their experience studying texts, grammar and writing as English majors with their assignments in education courses, preparing them more completely for classroom experience. It acts as a laboratory for the Department of Education, supplementing its curriculum. (Also listed as EDU 220.)

**ENG 240 Seminar: Introduction to Literary Studies.** This course is designed to immerse entering English majors and minors in the materials, methods, and current issues of their discipline. Texts are chosen by the instructor, so the course content varies. The format, however, is consistent. A moderator leads the class, but all English faculty contribute. Department members present individual literary interests and critical perspectives, the moderator fosters dialogue between seminar participants, and students begin to develop personal and critical stances toward literature. Written and oral assignments help students work through ascending skill levels, culminating in critical analysis. Each student prepares and presents a freshman research project. Required of all English majors and minors.

**ENG 250 Introduction to Critical Theory and Practice.** A study and practice of literary theory. The course will explore the purpose and nature of criticism, study representative theories and offer ample opportunities for reading and writing about literature using various theoretical stances. Required of all English majors and minors. Prerequisite: ENG 240.

**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: ENG 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. Prerequisites: completion of at least two ENG 300s courses and junior standing.

**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.

**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: completion of ENG 601 and senior standing.

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

**ENG 660, 670, 680, 690 Honors Project.** See p. 74.

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**READING COURSE**

**REA 101 Reading.** 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 reading shares in common with writing and speech will be studied and applied. Included in the course are the following topics: establishing appropriate study habits, organizing lecture and reading notes, and coping with test anxiety. This class is for students whose entrance test scores indicate a need. No course credit. S. Huey.

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**WRITING COURSES**

All courses are four semester hours unless noted.

**Liberal Studies Requirements:** WRI 111 satisfies the Writing requirement.

**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 printed and CD-ROM sources, and some of the many resources the Internet and Web offer. 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: WRI 111.

**WRI 202 Journalism II.** 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 responsibi-
ties. As lab requirement, students will work with the Holcad staff and submit stories for print consideration. **Prerequisite**: WRI 201.

**WRI 251 Non-Fiction Workshop.** A beginning workshop in which students develop skills in reading, evaluating, writing and revising non-fiction.

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

**WRI 400, 401 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**: at least one of the following courses: WRI 251, 253, 254, 255 and 256.

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**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 44 semester hours, as follows: PR 101, 202, 302, 401, 402, 501–502, 560, 601 and 602; WRI 201, 202.
Majors must pass a comprehensive exam in their senior year.

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.

**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 501/502     Public Relations Experiential Studies
PR 560     Public Relations Internship
PR 601     Public Relations Capstone I: Selected Topics
PR 602     Public Relations Capstone II: Project

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**PUBLIC RELATIONS COURSES**

All courses are four semester hours unless noted.

**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:** 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:** 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:** PR 101, 202, 302, WRI 201.

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:** PR 101, 202, 302, WRI 201.

PR 501-502, Experiential Studies (2 SH each). This requirement, taken for two hours credit in the Fall and Spring semesters of the senior year, 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. Limited to senior majors.

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. Graded.

PR 601 Public Relations Capstone I: Selected Topics. 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. The general intent here is to place the student in a managerial, decision-making role in which the primary requirement is to think in planning and program-execution terms. Limited to senior majors.

PR 602 Public Relations Capstone II: Project. A project-based course in which the 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. Limited to senior majors.

PR 620, 630, 640, 650 Independent Study.

PR 660, 670, 680, 690 Honors. (See p. 74.)
The Public Relations major also includes Journalism I and II (WRI 201, 202).

**WRI 201 Journalism I.** News reporting and writing, focusing on developing journalistic style and news judgment. Students win 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:* WRI 111.

**WRI 202 Journalism II.** Advanced news, feature, and editorial writing course designed to take students beyond the inverted pyramid. The focus is on polishing print and broadcast news writing style, developing techniques of writing various feature stories, and understanding opinion writing. Students will practice copy editing, photo editing, headline writing, caption writing, layout, and design. This course includes a closer study of press law and responsibilities. As lab requirement, students will work with the *Holcad* staff and submit stories for print consideration. *Prerequisite:* WRI 201.

### Environmental Science

This program, sponsored by the departments of biology, chemistry, mathematics and computer science, and physics, is composed of designated and elective courses from those disciplines, and geology, economics 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. C. Cuff.

*Requirements:* BIO 110, 111; CHE 117, 180; MTH 141; PHY 151, 152; ES 230, 240, 241, 260, 601 *and* four semester hours in a course numbered 560, 620, or 660. In addition, 12 semester hours of electives selected from a list of offerings are required. Four semester hours must be labeled biology or chemistry and the electives must be in at least two different disciplines. A grade of C- or better is required in all courses in the major.

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### ENVIRONMENTAL SCIENCE COURSES

All courses are four semester hours unless noted.

**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. Offered Spring Semester. *Prerequisites:* CHE 117, and MTH 131 or 141. T. Wooster. *(Also listed as CHE 230.)*

**ES 240 Population Ecology.** A study of the structure of ecological populations and the processes that affect them. Specific topics include population growth and regulation, intraspe-
cific competition, life history patterns, population genetics, and symbiotic interactions. A laboratory with field work is included. Laboratory exercises stress experimental design and data analysis. Offered Spring Semester. Prerequisites: BIO 110 and 111. A. Throckmorton. (Also listed as BIO 240.)

**ES 241 Community Ecology.** A study of the structure of ecological communities and ecosystems and the processes that affect them. Specific topics include interspecific competition, predation, food webs, species diversity, succession, biogeography, species conservation, and the flow of energy and materials through ecosystems. A laboratory with field work is included. Laboratory exercises stress experimental design and data analysis. Offered Fall Semester. Prerequisites: BIO 110 and 111. J. Balczon. (Also listed as BIO 241.)

**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 111 and CHE 117.

**ES 251 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 ArcGIS, a PC-based GIS software package. A. Throckmorton. (Also listed as BIO 251.)

**ES 260 Introduction to 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. Prerequisite: BIO 111 or CHE 117.

**ES 560, 570, 580, 590 Internship.** Prerequisites: ES 260 and consent of the Environmental Science Committee for proposed internship.

**ES 601 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. Prerequisites: successful completion of all required ES courses, and senior standing.

**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 260; and consent of the ES committee.

**ES 660, 670, 680, 690 Honors Research.** See p. 74. Additional requirements and due dates should be obtained from the environmental science chair. Four additional semester hours of research may count as an elective.
Finance
*(Concentration only—See Economics and Business, p. 119)*

Financial Economics ______________________

This program, sponsored by the Department of Economics and Business, includes courses from: accounting, business, and economics. Financial Economics provides a quantitative background in financial decision making, forecasting, and statistical techniques. It prepares students for graduate work in business or economics, and careers in the financial services industry. Program coordinator, T. Rosengarth.

*Requirements*: ACC 201, 202, 305, 306; BA 220, 325, 330, 350, 380, 420, 601; ECO 150, 310, 320, 340; MTH 131 or equivalent. Students must earn grades of at least a C- in these courses, and compile at least a 2.000 GPA.

Fine Art
*(See Communication Studies, Theatre, and Art, p. 113)*

French
*(See Modern Languages, p. 158)*

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. Twelve courses are presently approved with more being added on a continuing basis. Please see a current course schedule for the most up to date listing. The 12 presently approved are listed below. (See the appropriate program for a course description.)

CLC 112  Folktales, Myths
CLC 114  Studies in Latin American Literature
ENG 111  Dramatic Women
ENG 113  Fathers and Sons
ENG 405  Feminism
IC 102  Reading the World
HIS 305  Marriage and Family
PSY 331  Psychology of Women
REL 162  Gender and Religion
SOC 107  Sociology of Gender
SOC 150  Women in Cross-Cultural Perspective
SPE 201  Interpersonal Communication

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.

German
(See Modern Languages, p. 160)

Greek
(Minor program only —See Religion, History, Philosophy and Classics, p. 229)

Health Administration
(Concentration only —See Economics and Business, p. 119)

History
(See Religion, History, Philosophy and Classics, p. 220)

Human Resources
(Minor program only—See Economics and Business, p. 120)

Human Resources Management
(Concentration only —See Economics and Business, p. 119)
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 language, and history. The purpose of the program is to provide the linguistic and cultural background appropriate for careers, research or further study. C. Bové.

Requirements: Twenty-eight semester hours in sociology, including SOC 101, 105, 109, and 250; SSC 251; 16 semester hours in modern languages and eight semester hours in history; for French or German, the required language courses are 301, 302, 351, and 561; for Spanish, the required language courses are 301, 302, 561, and either 351 or 352. The required history courses to accompany French and German are any two of the following: HIS 125, 127 or 128. The required history courses to accompany Spanish are HIS 171 and 172. The capstone course for this major is French/German/Spanish 601. 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. Program coordinator, K. Carter.

Requirements: ACC 201 and 202; ECO 150 and 360; MTH 131 or equivalent, BA 140, 220, 310, 350, 410, 420 and 602; PS 104 or 431, one international cultures course (IC 101 or 102, REL 261, 262 or 263, or SOC 201); a minimum of commercial level foreign language competency and BA 602, Managing Across Borders & Cultures (this final course requires the translation of the students’ assigned business paper in BA 602 into his/her chosen modern language). A one-semester international experience (arranged through Westminster College) for the purposes of “Study Abroad” or “Work Abroad” is required. The preponderance of course content or work experience during this semester abroad must be specifically related to gaining business and/or economic knowledge or skills. Students must earn a grade of C- or better in all required courses and at least a 2.000 GPA.
International Business
(*Concentration only —See Economics and Business, p. 119*)

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. Program coordinator, A. Grove.

**Requirements:** Twenty-four semester hours from political science, including PS 101, 102, 103, 104, and any two from the following, PS 231, 232, 233, 234, 301, 332, 431, 560, or other political science course approved by the International Politics Major Committee; 12 semester hours numbered 301 or above in French, German, or 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, GER 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.

Latin
(*See Religion, History, Philosophy and Classics, p. 230*)

Marketing
(*Minor program only—See Economics and Business, p. 120*)

Marketing
(*Concentration only —See Economics and Business, p. 119*)
Mathematics and Computer Science

Professors: Barbara T. Faires, James E. Hall, Warren D. Hickman**
Associate Professor: Carolyn K. Cuff
Assistant Professors: John P. Bonomo, Alane S. Ferland, Terri L. Lenox, C. David Shaffer
Part-time Faculty: J. Miller Peck
Chair, Dr. Faires

Degree Offered: Bachelor of Science
Major Programs: Mathematics, Computer Information Systems, Computer Science
Minor Programs: Mathematics, 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. 86.

Westminster offers its students the opportunity to work with a wide range of computer hardware and software. College microcomputer labs in Hoyt Science Resources Center, McGill Library and Patterson Hall have numerous Dell Pentiums. 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. USX Corporation of Pittsburgh and Westminster College have a six-month (summer and an adjacent semester) cooperative/internship agreement. Students are tested and interviewed for acceptance into this program.

** On sabbatical leave Spring Semester 2003.
Interdisciplinary Programs: The environmental science program is offered through the departments of mathematics and computer science, biology, chemistry, and physics. See p. 142.

Graduation Requirements: In addition to the graduation requirements found on p. 67 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. The program begins with Discrete Analysis I, a foundation course that stresses the breadth and applications of mathematics and includes recent results as well as some of the classics. Students who complete the program successfully are prepared for a variety of careers in business, industry, and education as well as graduate work.

Mathematics: MTH 141, 142, 151, 211, 251, 252, 301, 351, 461, 601, plus at least two of the following: MTH 310, 321, 341, 352; also required: CS 142 and 151 and an approved two-semester sequence of math-intensive courses or completion of certain minors; examples of approved two-semester sequences are PHY 151 and 152; CHE 117 and 180; ECO 150 and BA 330; CS 152 and 251. Students should consult with their adviser with regard to other math-intensive sequences or appropriate minors.

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 431 (EDU 431) Teaching Mathematics in the Secondary School, the requirements for graduation listed on p. 66, and the minor in secondary education. Requirements for the 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 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 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: MTH 141, 142, 151, 211, 251, 252, and one four-semester-hour mathematics course numbered 300 or higher.
MATHEMATICS COURSES

All courses are four semester hours unless noted.

Liberal Studies Requirements: MTH 102, 110, 121, 131, 141, and 211 may be used to satisfy the Quantitative Reasoning Intellectual Perspective.

MTH 101 Calculus and Elementary Functions I. This course is the first in a two-semester sequence of courses which studies the fundamentals of differential and integral calculus while also reviewing precalculus concepts and techniques necessary for understanding calculus. This course will focus on the fundamentals of differential calculus. Prerequisite: none. This course is not open to students who have completed any mathematics course other than MTH 110 or MTH 121.

MTH 102 Calculus and Elementary Functions II. This course is the second in a two-semester sequence of courses, which studies the fundamentals of differential and integral calculus while also reviewing precalculus concepts and techniques necessary for understanding calculus. It is a continuation of MTH 101. Prerequisite: MTH 101.

MTH 110 Mathematical Perspectives. An introduction to quantitative concepts and skills, which will 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. The particular emphasis of each section will be listed in the class schedule.

MTH 121 Mathematics for the Elementary Teacher. A study of some of the fundamental concepts needed in elementary school mathematics. Topics include problem solving, sets, number theory, probability, statistics, and geometry. This is not a remedial course but one that challenges the student to become an independent learner of mathematics. Prerequisite: must be an elementary education major.

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 will be announced prior to registration each term. Possibilities include voting methods, apportionment, elementary graph theory, and elementary teacher. Prerequisites: a C- or higher in MTH 110, 121 or 131 or appropriate advanced credit.

MTH 125 Polynomial Calculus (2 SH). An introduction to the calculus of polynomials, which includes limits, rate of change, differentiation and integration. This course is a bridge to MTH 151 for students with no high school calculus. Students must be simultaneously enrolled in MTH 141.

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.

MTH 141 Discrete Analysis I. The gateway into the Westminster mathematics and computer science curriculum, this course stresses the breadth of mathematics with an emphasis on current applications. Topics include elementary logic, sets, functions, mathematical modeling, difference equations, vectors, introductory linear algebra, combinatorics, and probability. Prerequisites: solid secondary background in algebra, geometry, and trigonometry or permission of instructor.
MTH 142 Discrete Analysis II (2 SH). A study of topics including algorithms, equivalence relations, ordering principles, trees, and graphs. Prerequisite: MTH 141.

MTH 151 Single-variable Calculus. A study of the differential and integral calculus of single variable functions including polynomials, trigonometric, exponential and logarithmic functions. Also considered is an introduction to differential equations: separable and homogeneous, first order linear and the theory and application of exponential growth and decay. Prerequisite: MTH 141.

MTH 211 Statistics. An introduction to statistics as applied to the Natural Sciences. Topics include graphical and numerical data analysis of single and multiple variates, confidence intervals and the assumptions required for their development, hypothesis testing and the assumptions required for the tests, and simple and multiple linear regression. Prerequisite: completion of a college-level math course or AP math credit.

MTH 251 Multivariable Calculus. A study of the differential and integral calculus of functions of several variables. Included are vector functions and fields, line integrals, sequences, series and power series. Prerequisite: MTH 151 or appropriate advanced placement credit.


MTH 301 Mathematical Probability and Statistics. An introduction to the mathematics of basic probability theory and the mathematics of statistical inference. Topics include discrete and continuous random variables, bivariate and multivariate distributions, point estimators, and measures of their quality. Prerequisites: MTH 141, 211 and 251, CS 151.

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 251 or permission of instructor.

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. Algorithms for numerical methods are programmed. Prerequisites: MTH 251 and CS 151.

MTH 331 College Geometry (2 SH). An examination of the axiomatic foundations of Euclidean geometry, orthogonal circles and inversion. Non-Euclidean geometry and some of its consequences are also studied. This course is open only to those junior and senior mathematics majors who plan to student teach. Students registering for this course must also register for MTH 431 (EDU 431). Prerequisites: MTH 252, EDU 201, PSY 231.

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 252 and MTH 211 or MTH 142 and BA 330.

MTH 351 Mathematical Analysis I. Topics include set theory, the real number system, limits, continuous functions, differentiation, Riemann integration, sequences, and series. The main emphasis is on the development of an understanding of mathematical theory and how to give a good proof. Prerequisite: MTH 252.
MTH 352 Mathematical Analysis II. Continuation of the theory of functions of a real variable begun in MTH 351; review of uniform continuity; convergence and uniform convergence; Taylor polynomials. Introduction to complex analysis, Fourier analysis, and applications. **Prerequisite:** MTH 351.

MTH 431 Teaching Mathematics in the Secondary School. 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 presented for critical analysis. 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. Students registering for this course must also register for MTH 331. **Prerequisites:** MTH 251, EDU 201, PSY 231. (Also listed as EDU 431.)

MTH 461 Abstract Algebra I. A study of algebraic structures with an emphasis on groups and the construction of proofs. **Prerequisite:** CS 142, MTH 252.

MTH 462 Abstract Algebra II. A continuation of the study of algebraic structures which was begun in MTH 461. Topics to be covered include rings, fields, vector spaces, linear transformation, and Galois theory. **Prerequisite:** MTH 461.

MTH 481 Topology. An introductory course covering set theory, continuous mappings, homeomorphisms, connectedness, compactness, metric spaces, product spaces and quotient spaces. **Prerequisite:** MTH 351.

MTH 560, 570, 580, 590. Field Experience/Internship. **Prerequisites:** MTH 252, 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. **Prerequisites:** MTH 301, 351, CS 142, 151.

MTH 620, 630, 640, 650 Independent Study.

MTH 660, 670, 680, 690 Honors Research. See p. 74.

**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 a minor is offered in computer science. 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 142, 151, 152, 251, 311, 321, 411, 421, 601, 602; and at least three of any 300 or 400 level CS course, CS 564 and MTH 321; also required are MTH 141, 142, 151, 211; and one of PHY 151, 152, BIO 110, 111, CHE 117 or 180.
Major in Computer Information Systems—Required Courses: CS 142, 151, 152, 251, 310, 321, 451, 601, 602; and at least two of any 300 or 400 level CS course, CS 564. One elective may be selected from the following: CS 252, CS 271, or CS 231. Also required are MTH 141, 142, 151, or 131, 211; BA 160; and ECO 150.

Minor in Computer Science—Required Courses: CS 142, 151, 152, 251; plus three of any 300 or 400 level CS course; also required are MTH 141, 142.

COMPUTER SCIENCE COURSES

All courses are four semester hours unless noted.

Liberal Studies Requirements: CS 271 and PSY 261, or CS 252 and PSY 251 taken together satisfy a Cluster Course requirement.

CS 102 BASIC Programming. Study of the BASIC programming language. File processing and 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 I. An introduction to computer tools and techniques for the organization, processing, and presentation of information. Topics include spreadsheets, design of World Wide Web pages, presentation management software, and graphics manipulation software. Significant problems in information delivery will be considered alongside the study of the relevant software/hardware tools. A term project related to the students’ interests will complete the course. 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, introduction to data communications, Internet programming, development of dynamic World Wide Web pages using languages such as Java/ Javascript, and an introduction to multimedia. Database and networking 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 142 Theoretical Foundations of Computer Science (2 SH). An exploration of the conceptual tools needed to understand the capabilities and limitations of computing devices, and a look at the intellectually-rich foundations of problem solving via computer. Topics will be chosen from the fields of algorithmic analysis, formal language theory, automata design and the mathematical aspects of advanced data structures. Prerequisite: MTH 142.

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 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. Prerequisite: CS 151.

CS 231 COBOL. An introduction to COBOL Programming and the use of COBOL in business applications. Sequential file processing, control, breaks, sorting and table handling will be studied in depth. Prerequisite: CS 151.

CS 251 Data Structures. A course on the use, implementation and analysis of data structures and algorithms. Structures to be studied included 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. Prerequisite: CS 152. Co-requisite: CS 142.

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; inter 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.

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

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. Hardware and software are discussed. 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. Prerequisites: CS 251 and MTH 151 or MTH 131.

CS 451 Software Engineering Using CASE. 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 251.

CS 461 Simulation for Computer Scientists. A study of modeling discrete and continuous systems, with applications written using simulation languages and standard higher level languages. Prerequisites: MTH 211 or equivalent and 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. 74.)

**Media Art**

*(See Communication Studies, Theatre, and Art, p. 113)*

**Modern Languages**

*Professors: Carol M. Bové (French)*, Jake Erhardt (German),  
  Jesse T. Mann (French)  
*Assistant Professors: Jeffrey T. Bersett (Spanish), Camila Bari de Lopez (Spanish), Ann L. Murphy (French)  
*Visiting Assistant Instructor: Milagros Z. Swerdlow (Spanish)  
*Chair, Dr. Mann

**Degree Offered:** Bachelor of Arts  
**Major Programs:** French, German, Spanish  
**Interdisciplinary Major Programs:** Intercultural Studies – Sociology and  
  Modern Languages, International Business, International Politics  
**Minor Programs:** Cultural Studies, French, German, Spanish  
**Teacher Certification:** French, German, 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, nation-

* On leave of absence Fall Semester 2002.
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 below under the specific language headings (French, German, Spanish) are all taught in the original languages. Most of the courses taught in English carry the label “Comparative Literature and Culture” (CLC) and are listed on p. 164).

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.

Requirements for the Majors and Minors: The requirements for the major and minor programs in cultural studies, French, German, 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, German, 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. 130).

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, German, and Spanish that may be used to fulfill the one course requirement in this perspective are those numbered 201, 202, and 301 (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.

Cluster Courses: CLC 112 and ART 112, CLC 121 and HIS 125, CLC 131 and HIS 128, or CLC 141 and SOC 150 taken together satisfy a Cluster Course requirement.

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, German, 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. 130).
FRENCH COURSES

All courses are four semester hours unless noted.

**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 four 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. 74.)

German

Requirements for the Major: A major in German requires a minimum of 36 semester hours and a maximum of 48 semester hours in German courses numbered 201 and higher, including 351, 601, and two advanced German 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 German-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 German requires a minimum of 24 semester hours in German 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 German is desired, the major must include the following courses: GER 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. 130).

GERMAN COURSES

All courses are four semester hours unless noted.
GER 101 Elementary German I. A course designed for students who have had less than one year of German in high school, or who wish to study German 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.

GER 102 Elementary German II. A continuation of the skills and emphases stated for German 101. Prerequisite: GER 101 or at least one year of high school German.

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: GER 102 or at least two years of high school German.

GER 202 Intermediate German II. A continuation of the skills and emphases stated for German 201. Prerequisite: GER 201 or at least four years of high school German.

GER 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 German. 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: GER 202 or at least four years of high school German.

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

GER 303 Commercial German. 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 will be given at the end of the course. Prerequisite: GER 302 or consent of instructor.

GER 351 German Culture. An introduction to major German 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: GER 302 or consent of instructor.

GER 401 The Classical and Romantic Ages. A study of the major works of German Classicism and Romanticism. Prerequisite: GER 302 or consent of instructor.

GER 402 Studies in 19th Century German Literature. A study of German thought and literary developments from the death of Goethe to Nietzsche and German Naturalism. Prerequisite: GER 302 or consent of instructor.

GER 403 German Literature in the Modern Era. The study of works by representative 20th century German, Swiss and Austrian writers. Prerequisite: GER 302 or consent of instructor.

GER 408, 409 Topics in German. An in-depth study of the literature of a specific area, genre, or time period, as determined by the instructor. Prerequisite: GER 302 or consent of instructor.

GER 560, 570, 580, 590 Field Experience/Internship. Prerequisite: GER 301 or consent of instructor.
GER 601 German Capstone. A course required of all German majors. The course will examine in some depth a topic in the language, literature, or culture of the German-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 Spanish, and are taught in English; however, German majors will also do independent research under the direction of a member of the German faculty and will write their final paper in German.

GER 620, 630, 640, 650 Independent Study. Courses designed for advanced students who are capable of undertaking individual projects in German language or literature. A comprehensive report or scholarly paper in German is required. Prerequisites: completion of at least three German courses numbered 351 or higher, and consent of the department chair.

GER 660, 670, 680, 690 Honors Project. (See p. 74.)

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. 130).

SPANISH COURSES

All courses are four semester hours unless noted.

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 four 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 Logones, 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 prac-
tice. 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. 74.)

**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. The descriptions given below are of a general nature; 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.

All courses are four semester hours unless noted.

**CLC 101-109 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 130-139 Studies in German Literature and Culture.** The study of German 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.

**Intercultural Communication**

All courses are four semester hours unless noted.

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.

**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.

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**LANGUAGE COURSES**

All courses are four semester hours unless noted.

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, German, and Spanish numbered 101 and 102).

**Molecular Biology**

*(See Biology, p. 93)*
Music

Professor: Grover A. Pitman
Associate Professor: Paul R. Chenevey
Assistant Professors: Anne H. Bentz, Nancy J. DeSalvo, Elizabeth A. Harrison, Robin Anna-Karin Lind
Instructor: R. Tad Greig
Artist-in-Residence: Susan Shafer
Chair, Dr. Pitman

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 http://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 organists or directors. The student pursuing a major in music education, performance, or sacred music must complete 96 semester hours’ credit in music plus 40 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 84 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:

<table>
<thead>
<tr>
<th>Category</th>
<th>Course Codes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Theory (20 sem hrs)</td>
<td>MUS 121, 121L, 122, 122L, 123, 123L, 124, 124L, 126</td>
</tr>
<tr>
<td>History (8 sem hrs)</td>
<td>MUS 141, 142</td>
</tr>
<tr>
<td>Conducting (3 sem hrs)</td>
<td>MUS 271R, 272R, 273R</td>
</tr>
<tr>
<td>Pedagogy (7 sem hrs)</td>
<td>MUS 200, 201, 202, 203, 204, 205, 206R</td>
</tr>
<tr>
<td>Technology (1 sem hr)</td>
<td>MUS 261R</td>
</tr>
<tr>
<td>Professional Education</td>
<td>MUS 181, 182, 183, 184, 195, 196</td>
</tr>
<tr>
<td>(32 sem hrs)*</td>
<td></td>
</tr>
<tr>
<td>Private Lessons (7 sem hrs)**</td>
<td>7 semesters’ private study in primary instrument or voice</td>
</tr>
<tr>
<td>Large Ensembles (7 sem hrs)</td>
<td>7 separate semesters’ participation in a Large Ensemble</td>
</tr>
<tr>
<td>Music Electives (3 sem hrs)</td>
<td>3 one-hour electives in music from group of MUS 207R, 208R, 209R, 212, 213, 367</td>
</tr>
<tr>
<td>Music Literature (4 sem hrs)</td>
<td>1 four-hour elective in music from group of MUS 164, 167 or 168</td>
</tr>
<tr>
<td>Capstone Recital (4 sem hrs)</td>
<td>MUS 601: Capstone Recital (or MUS 610: Capstone Lecture Recital) concurrent with seventh semester of private study of primary instrument or voice</td>
</tr>
</tbody>
</table>

*Students must also take MTH 110 (Mathematical Perspectives) as the Quantitative Reasoning Intellectual Perspective course.

**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
Eligibility requirements for admission to student teaching are:
- Complete the required block of Freshman Observations in the public schools
- Make formal application by mid-term break of Spring Semester of junior year
- 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 271R, 272R, and 273R), and Professional music courses (MUS 181, 182, 183 and 184)
- Pass the proficiency examination in piano
- 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
- Pass the general knowledge and communication skills sections of the National Teacher Examination

Eligibility requirements for recommendation for Pennsylvania state teacher certification in Music K-12:
- Pass the Pre-professional Skills Test (reading, writing, and mathematics) and Principles of Learning and Teaching Test (either K-6 or 7-12) of the Praxis Series Examination
- Attain a minimum grade equal to 3.000 in each of 195 and 196 (student teaching)

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 273R).

The Pennsylvania state requirement of teachers to take 6 hours of English composition and literature are fulfilled when the student passes Inquiry 101 and Writing 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, pg. 65.)
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 271R, 272R, and 273R
- Voice concentrations take 2 semester hours, specifically MUS 271R plus either MUS 272R or 273R

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

**Private Lessons (21 sem hrs)**
- 1 sem hr in first semester of first year, in voice (MUS 381), piano (MUS 393), 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)**
- Piano and Organ concentrations take 8 semesters of Large Ensemble
- Voice concentrations take 7 separate semesters of Large Ensemble

**Music Electives (20 sem hrs)**
- 2 four-hour electives in music theory, from MUS 126, 127, or 128; and
- 3 four-hour electives in music literature, from MUS 161, 162, 163, 164, or 165
  - (Note: Pianists must take MUS 161; Organists must take MUS 162)

**Additional Ensembles (0-2 sem hrs)**
- Voice concentrations ONLY take 2 sem hrs of musical or opera workshop
Junior Recital (2 sem hrs)  MUS 397 Junior Recital
Capstone Recital (4 sem hrs)  MUS 601 Capstone Recital
Techniques (5 sem hrs)  Voice concentrations take MUS 206R, 207R, 208R, 209R, 244
Piano concentrations take MUS 210R, 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 273R).

**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 will be allowed to continue as a performance major. A student who is allowed to remain in the major will subsequently take private lessons at the frequency of two hours of instruction per week.

***MUS 610 Capstone Lecture Recital is not an option for the performance major.

Each student is required to pass a series of examinations on his/her primary instrument, as follows:

- 8 Juries one at the end of each semester’s primary private lessons
- 1 Sophomore Hearing performance and portfolio review during second semester of sophomore year
- 2 Recital Hearings two weeks prior to the Junior and the Capstone Recitals

Each student is required to pass the piano proficiency examination prior to graduation.

A letter grade of at least C- must be attained in each of MUS 121, 122, 123, 124, 125, 141, and 142, and a letter grade of at least B- must be attained in each of MUS 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, pg. 65.)
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 271R, 272R, 273R*

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

- **Professional Education (4 sem hrs)**
  - MUS 182

- **Pedagogy (1 sem hr)**
  - MUS 206R

- **Diction (3 sem hr)**
  - MUS 207R, 208R, 209R

- **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 semester hours 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 610 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 163/MUS 163 as the Intellectual Perspectives course in Religion and Philosophical Thought and Tradition.

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, pg. 65.)

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 (6 sem hrs)**
  
  6 separate semesters’ participation in a Large Ensemble

- **Music Electives (2 sem hrs)**
  
  2 semester hours of credit in music

- **Capstone Recital (4 sem hrs)**
  
  MUS 601 Capstone Recital, or MUS 610 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

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, pg. 65.)

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 (4 sem hrs)**
  
  4 separate semesters’ participation in a Large Ensemble
Capstone Recital (4 sem hrs)  MUS 601 Capstone Recital, or MUS 610 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
- 1 Sophomore Hearing
- 1 Recital Hearing

one at the end of each semester’s primary private lessons
performance and portfolio review during second semester of sophomore year
two weeks prior to the Capstone Recital or Lecture Recital

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, pg. 65.)

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.

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 COURSES**

**Liberal Studies Requirements:** MUS 101, 103, 141, and 142 may be used to satisfy the Intellectual Perspective requirement in Humanity and Culture. MUS 102, 180, or four semester hours of credit in either MUS 401V or 441V, or a
cumulation of four semester hours of credit in any combination of 421V, 423V, or 424V, may be used to satisfy the Intellectual Perspective requirement in Visual and Performing Arts. MUS 103 and HIS 223 taken together satisfy a Cluster Course requirement.

**Introductory Music Courses**

**MUS 101 Introduction to Western Music.** An historical study of the basic elements and major periods of 2000 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. 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 Humanity and Culture. 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.** A historical study of the development of musical theatre from its origins in opera and operetta to today. Prerequisite: none. Credit: 4 semester hours.

**Music Theory Courses**

**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 and keyboard 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, sight reading, and keyboard 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.

Music History Courses

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: sophomore 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: sophomore 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.

Music Literature Courses

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 BC 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-Classic period through the 20th century with emphasis on both the aural and analytical understanding of this repertoire. *Prerequisite:* MUS 142, or permission of instructor. *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.

**Sacred Music Courses**

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 163.)*

MUS 179 Seminar in Sacred Music. Topics to be determined. *Prerequisite:* permission of instructor. *Credit:* 4 semester hours.
Professional Music Education Courses

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 169. 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 169. 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.

Music Instrumental and Vocal Techniques and Pedagogy Courses

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, teaching methods, and instrument maintenance. Required of all students wishing to teach string private lessons in the Music Intern Teaching Program. Participation in weekly 45-minute Performance Lab required. Prerequi-
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. Participation in weekly 45-minute Performance Lab required. Required of all students wishing to teach string private lessons in the Music Intern Teaching Program. 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 206R Voice 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. Prerequisites: 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 207R Latin and Italian Diction. A study of the fundamentals of pronunciation and articulation of Latin and Italian vocal and dramatic literature, for singers. Prerequisites: none. Credit: 1 semester hour.

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

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

MUS 210R 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. Required of all students wishing to teach organ private lessons in the Music Intern Teaching Program. 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 seventeenth and eighteenth centuries and jazz and popular music of the twentieth 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. Advanced 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 251R 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 261R 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.

**Music Conducting Courses**

MUS 271R 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. **Co-requisite:** must also register for MUS 600L. **Credit:** 1 semester hour. **Note:** A letter grade of B- must be attained in MUS 271R in order to count for graduation as a music education major.

MUS 272R 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 271R. **Credit:** 1 semester hour. **Note:** A letter grade of B- must be attained in MUS 272R in order to count for graduation as a music education major.

MUS 273R 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 271R. **Co-requisite:** must also register for MUS 600L. **Credit:** 1 semester hour. **Note:** A letter grade
of B- must be attained in MUS 273R in order to count for graduation as a music education major.

**MUS 274R 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 272R and 273R. **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.

**Music Private Lessons**

**Majors and minors on primary instruments or voice.** 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. 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.

<table>
<thead>
<tr>
<th>301 Flute</th>
<th>325 Trombone</th>
<th>349 Double Bass</th>
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<tr>
<td>303 Oboe</td>
<td>327 Euphonium</td>
<td>361 Guitar</td>
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<td>305 Clarinet</td>
<td>329 Tuba</td>
<td>367 Jazz Improvisation</td>
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<td>307 Bassoon</td>
<td>341 Percussion</td>
<td>379 Composition</td>
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<td>309 Saxophone</td>
<td>343 Violin</td>
<td>381 Voice</td>
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<td>321 French Horn</td>
<td>345 Viola</td>
<td>383 Piano</td>
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<tr>
<td>323 Trumpet</td>
<td>347 Violoncello</td>
<td>387 Organ</td>
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</table>
All minors, and majors on secondary instruments or voice. 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 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 324 Trombone 348 Double Bass
302 Oboe 326 Euphonium 360 Guitar
304 Clarinet 328 Tuba 366 Carillon
306 Bassoon 340 Percussion 368 Composition
308 Saxophone 342 Violin 380 Voice
320 French Horn 344 Viola 382 Piano
322 Trumpet 346 Violoncello 386 Organ

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 one semester of MUS 380, 382, or 386. Additionally, the student must receive permission of the instructor. Performance as a major is limited to voice, piano, and organ. 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.

391 Voice 393 Piano 395 Organ

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.)
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. Prerequisite: 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 Vespers services, in the annual Christmas Vespers 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.
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 Vespers 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.

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 Vespers 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.

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 427 Opera Scenes. Study and performance of selected opera scenes. Emphasis on singing, acting, speaking, staging and costuming. This course does not fulfill the large ensemble requirement for music majors. Prerequisites: audition and permission of the 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 strings 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.

**Colloquium**

MUS 600 **Music Colloquium.** Required of all students taking private lessons on primary instruments or voice. Meets twice each week. **Prerequisites:** none. **Co-requisite:** 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.

**Music Recitals**

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 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 610 **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.
Field Experiences, Internships, Independent Studies, & Honors in Music

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 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. Prerequisites: permission of instructor and department chair. Credit: 1-4 semester hours.

MUS 664 Honors Research. Prerequisite: HON 301. Credit: 4 semester hours.

MUS 674 Honors Research. Prerequisite: MUS 664. Credit: 4 semester hours.

MUS 684 Honors Research. Prerequisite: MUS 674. Credit: 4 semester hours.

MUS 694 Honors Research. Prerequisite: MUS 684. Credit: 4 semester hours.

Neuroscience

Coordinators: J. Philip Fawley (Biology) and Alan G. Gittis (Psychology)
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 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 110, 111, 221 or 222/223, 230 or 231, PSY 101, 201, 341, 601, 602, and NS 631, 632. Additionally, students must make selections from the following courses (or approved alternatives):

- BIO: 321 or approved 300 level biology course
- CHE: 117, 180, 261, 262, 381
- CS: 142, 151, 152, 271
- MTH: 131, 141
- NS: 561
- PHI: 218
- PHY: 151, 152
- PSY: 261, 262, 281, 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.

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. 74.) Students enrolled in Honors Research participate in PSY 601, 602, NS 631, 632.

Peace Studies (minor program only)


Peace studies engages faculty and students in an enduring human question: what are the causes of conflict and the means for resolving and preventing conflict? Addressing this fundamental question requires the study not only of political and social forces and realities but also of the very nature of being human. In addition,
uncertainties about the nature of world security in the post-Cold War era make the present an especially opportune time for peace studies.

American students see the high level of violence and conflict in the world, but are not adequately equipped to understand the problems or to respond to them in a positive fashion. In their first course, Introduction to Peace Studies, students will become engaged in the enduring human questions at the core of the program. And the many local, national, and international problems investigated through the other courses in the program will challenge them to address difficult ethical and societal concerns, the grounds for their decisions, and the complex nature of the problems in question. Through service projects at the local, national or international levels, students will translate their competencies into action. In the seminar in Conflict Resolution they will have a chance to practice “real world” conflict resolution. After graduation, students from a variety of majors will be able to draw upon their training as they respond to a diverse, global environment.

What kind of students, for example, will find peace studies courses of practical value in their pursuit of a meaningful career?

… The pre-law student having a special interest in international law.

… The environmental science major who wants to affect legislative changes to protect and restore the environment and needs to understand the competing value system.

… The elementary education major who is committed to teaching at an inner-city school who wants to learn more about minorities in American culture and how to be sensitive to cultural differences in the classroom.

… The psychology, sociology or business major who needs to develop skills for conflict resolution in public schools, or in institutional or corporate settings where diversity leads to misunderstanding and conflict.

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) Introduction to Peace Studies and 2) a seminar in Conflict Resolution; as well as four electives (designated as peace studies courses) from regular courses in many departments. At least eight semester hours must be outside the major. A concentration is similar to a minor except that only two electives are required.

Class requirements for the peace studies minor, concentration, and tracks include:

To fulfill the minor or concentration each student must take PAX 101: Introduction to Peace Studies, and PAX 301: Seminar in Conflict Resolution. The other courses required for the minor or major should be taken from the following list of designated courses offered by other departments (see the appropriate program for a course description): ES 260, HIS 125, HIS 152, HIS 223, HIS 231, PS 241, PSY 321, PSY 331, REL 152, REL 264, REL 265, SOC 104, SOC 105, SOC 109.
Other courses may be taken for peace studies credit with the approval of the coordinator of the program. Coordinators, Andrea Grove and Eugene Sharkey.

PEACE STUDIES COURSES

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 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 Conflict Resolution Seminar. This seminar course is an experientially based, hands-on exploration of ways to work through conflict: personally, interpersonally, and in groups. Theory and practice will be reciprocal. Students will be expected to provide significant input regarding the topics to be emphasized and the methods of evaluation to be employed.

Philosophy
(See Religion, History, Philosophy and Classics, p. 226)

Physical Education
(No Major programs)

Professors: S. Kipley Haas, B. Eugene Nicholson
Associate Professors: Robert G. Klamut Jr., D. Scott Renninger
Assistant Professor: Tammy Swearingen
Part-time Faculty: Scott B. Camerlo, Sean M. Kelly, Mary McKinley, Larry R. Ondako, Jan M. Reddinger, Shaun J. Toomey
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.

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

Professors: William L. Johnson, G. Samuel Lightner
Assistant Professor: Craig L. Caylor
Chair, Dr. Lightner

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. 88.

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; MTH 141, 151, 251, 252; 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. 142.)

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. 67, and successfully complete the minor in secondary education. Requirements for the minor are listed in the Department of Education, p. 130.

For certification in general science the following options are available:

1) Major in physics (with secondary education minor) plus
   BIO 110, 111
   GEO 121

2) Major in environmental science
   GEO 121
   PHY 121

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.

PHYSICS COURSES

All courses are four semester hours unless noted.

Liberal Studies Requirement: PHY 101, 121 and 151 may be used to satisfy the Scientific Discovery Intellectual Perspective.

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 and Spring semesters.

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 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 intro-
duced as needed. A laboratory is included. MTH 141 or 131 required either concurrently or previously. 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. **Prerequisite:** PHY 151; MTH 131, MTH 125 (or equivalent) (previous or concurrent MTH 151 encouraged). 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 251; **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. **Co-requisite:** MTH 252; **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. **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). **Co-requisite:** MTH 252; **Prerequisite** PHY 152. 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. **Prerequisites:** PHY 312, MTH 252. 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, MTH 252. 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.

PHY 620, 630, 640, 650 Independent Study.

PHY 660, 670, 680, 690 Honors Project.

**Political Science and Sociology _____________**

*Professors: John Deegan Jr., Phyllis G. Kitzerow*<sup>*</sup>
Associate Professors: Edward S. Cohen, Gary D. Lilly, Kristin Park, James C. Rhoads Jr., Virginia Moore Tomlinson
Assistant Professor: Andrea K. Grove
Part-time Faculty: Michael A. George, Brenda A. Marino
Chair, Dr. Lilly

**Degree Offered:** Bachelor of Arts  
**Major Programs:** Political Science, Sociology  
**Interdisciplinary Programs:** International Politics, Intercultural Studies and Modern Languages  
**Political Science Concentration:** Pre-Law  
**Sociology Concentrations:** Criminal Justice, Social Policy  
**Minor Programs:** Criminal Justice, Political Science, Sociology, Gender Studies  
**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.

* On sabbatical leave Fall Semester 2002.
The Major in Political Science: All political science majors must complete 48 semester hours as follows.

- PS 101, 102, 103, 104, 301, 601
- One course in American Politics (PS 212, 213, 215, 311, 411, 451, 452)
- One course in Political Theory or Public Policy (PS 214, 221, 222, 241, 321, 322, 323, 324, 342, 453)
- One course in International Politics or Comparative Politics (PS 231, 232, 233, 234, 331, 332, 431, 454, 455)
- At least three political science electives

The Minor in Political Science:

- PS 101, 102, 103, 104
- Two 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.

Pre-Law Concentration: The following is a list of recommended courses for political science majors planning to attend law school:

- PS 101, 102, 103, 104, 301, 601
- PS 214: The Courts
- PS 321: American Constitutional Law - Government Powers
- PS 322: American Constitutional Law - Civil Rights and Liberties
- PS 431 International Law
- ECO 150: Economic Reasoning
- PHI 102: Practical Logic
- PHI 111: Ethics
- SOC 203: 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. 86.

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.

Requirements for the minor are listed in the Department of Education, p. 130.

Six courses in related fields are also required:

GEO 101
ECO 150
SOC 101

Two courses required, four recommended, in American History:

HIS 201, 203, 204, 205, or 222.

One course required, two recommended, in World History:

HIS 101, 102, 123 and 125, 126, 127, 128.
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.

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 COURSES

All courses are four semester hours unless noted.

**Liberal Studies Requirement:** PS 101, 102, 104, 214, 241, 331, 411 may be used to satisfy the Social Thought and Tradition Intellectual Perspective; PS 301 may be used to satisfy the Quantitative Reasoning Intellectual Perspective; PS 103 may be used to satisfy the Religious and Philosophical Thought Intellectual Perspective. PS 234 may be used to satisfy the Humanity and Culture Intellectual Perspective. PS 150 and ENG 104 or PS 241 and SOC 108 taken together satisfy the Cluster Course requirement.

**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.

**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.

**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. The social relevance of the problem is emphasized. 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 analyzed 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. A. Grove.

**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 decision making process in civil and criminal cases, 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.

PS 215 The Politics of Rock and Roll. This course examines the relationship between one of the most powerful cultural forces of the 20th century—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. E. Cohen.

PS 231 Comparative Communist Governments and Politics. A comparative study of communist governments. The course will concentrate on the rise and fall of communist systems and will examine in particular the various reasons why communist systems failed in Eastern Europe but have survived elsewhere. Special consideration will be given to events in the People’s Republic of China, the stresses on its political system, and its relation to other surviving communist countries. A. Grove.

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. A. Grove.

PS 233 Government and Politics of Third World 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. A. Grove.

PS 234 Irish Politics and Society. Exploration of Ireland’s current and past politics and culture. This course will give the student an understanding of how the current setting in Ireland—in terms of politics, economics, and society—grows out of its rich history of domination by and then integration with the external world. We will examine the history and politics of the Republic of Ireland and of Northern Ireland, and explore the causes of the sectarian dispute plaguing the north. A. Grove.

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 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 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. 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. E. Cohen.

**PS 322 American Constitution 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. 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. E. Cohen.

**PS 324 Political Dynamics.** An analysis of the nature and uses of political power among various types of ideological competitors. After a survey on the theoretical aspects of power, the major emphasis of the course is upon the effective application of power in practical or tactical situations. It deals with various methods for the acquisition and maintenance of power, among them election strategies, propaganda, and forms of political violence. E. Cohen.

**PS 331 Geopolitics.** A study of the interaction of geography, natural resources, political system, and power. Some of the main strategies of geopolitics are examined, especially as they pertain to land, sea, and air power. Central to the course is the traditional opposition between the mari-time-oriented states and the land-centered nations. Such power cores as the United States, Russia, China, and Western Europe are considered in some detail. A. Grove.

**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. A. Grove.

**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. 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. 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). A. Grove.

**PS 451, 452, 453, 454, 455 Political Science Seminars.** Work in selected areas. These areas include PS 451 Seminar in Politics and Behavior; PS 452 Seminar in American Politics; PS 453 Seminar in Political Philosophy; PS 454 Seminar in Comparative Politics; PS 455 Seminar in International Politics. Special topics related to the selected area to be offered are announced prior to each registration period. Consent of department required.

**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.**

**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, of which three must be 200 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, 203, 250, 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, 301, 327; 601, 602
- SSC 251 and 252
- BA 160 and 310
- PS 241
- 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, 203, and 250
• SSC 251

Interdisciplinary Program: The department participates with the Department of Modern Languages in offering the Intercultural Studies interdisciplinary major. (See p. 146.)

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.

SOCIODEMY COURSES

All courses are four semester hours unless noted.

Liberal Studies Requirements: SOC 101, 102, 104, 106, 107, 108, 109 and 150 may be used to satisfy the Social Thought and Tradition Intellectual Perspective; SOC 105 may be used to satisfy the Humanity and Culture Intellectual Perspective; SOC 303 may be used to satisfy the Religious and Philosophical Thought Intellectual Perspective; SSC 252 may be used to satisfy the Quantitative Reasoning Intellectual Perspective. SOC 102 and SPE 202, SOC 105 and HIS 202, SOC 108 and PS 241, SOC 150 and CLC 141, or SOC 301 and BIO 103 taken together satisfy a Cluster Course requirement.

See the most recent course listings on the Political Science and Sociology Home page. Any student wishing to take a course numbered 201 or above must have as a prerequisite a course numbered below 201.

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. An exploration of norm-breaking behavior and its consequences. Traditional and contemporary theories of deviance will be examined, as will particular areas of deviant behavior. The change in definitions of what is regarded as deviant will be dealt with at length. P. Kitzerow, V. Tomlinson.

SOC 104 Social Inequality. An 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. Analysis of the interrelationship between society, culture, and the individual with emphasis upon the emergence of self and the participation of the
individual in social processes. Attention is paid to comparative theories of action and empirical studies. P. Kitzerow, G. Lilly.

**SOC 107 Sociology of Gender.** An examination of the social and historical influences upon behavior as it is differentiated by gender. The pattern of learning sex roles as well as the current redefinition of such roles will be discussed. Material from a variety of sources will be examined with the intent of both documenting and explaining this differentiation of roles. Offered 2001-2002 and alternate years. P. Kitzerow, K. Park.

**SOC 108 Social Problems, Social Policies.** An examination of societal intentions and actions for resolving issues of public concern such as poverty, unemployment, and the well-being of those who are sick, disabled, displaced, at risk, dependent or racial/ethnic minorities. Both historical and ideological factors will be explored as will be the consequences of action in terms of social programming and policies. V. Tomlinson.

**SOC 109 Minority-Majority Relations.** A study of minority-majority group relationships primarily within the United States. Theoretical explanations and historical contexts are discussed with particular attention to the Civil Rights Movement. P. Kitzerow.

**SOC 150 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. K. Park.

**SOC 201 Juvenile Delinquency.** An exploration of juvenile misconduct and its legal consequences. Theories explaining juvenile delinquency from a variety of perspectives will be examined. The emergence and present state of the juvenile justice system will be covered as well. P. Kitzerow.

**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. *Prerequisite*: SOC 201. P. Kitzerow.

**SOC 203 The Sociology of Law and Legal Systems.** 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. G. Lilly.

**SOC 204 Introduction to Social Work.** An exploration of the knowledge base, theories, and methods that social workers use. Emphasis is given to the contributions that sociologists have made to social work theory and practice. Several of the major fields of practice are examined including family and child welfare, health care, mental health, criminal justice, and gerontology. V. Tomlinson.

**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 Spring Semester. K. Park, V. Tomlinson.

**SOC 301 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. V. Tomlinson.
SOC 303 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. K. Park. (Also listed as REL 363.)

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. G. Lilly.

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. The course is designed for both general students and 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 of their choice to the major theoretical and methodological schools in sociology. This effort will result in the student preparing a major research proposal which will be implemented in the fall.

SOC 602 Sociology Capstone II. The student will conduct a significant research project which will be presented in a departmental forum in the fall.

SOC 620, 630, 640, 650 Independent Study.

SOC 660, 670, 680, 690 Honors Project. (See p. 74.)

SOCIAL SCIENCE

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. Offered Fall Semester. V. Tomlinson, K. Park.

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. Offered Spring Semester. Prerequisite: SSC 251 or consent of instructor. G. Lilly.

NONDEPARTMENTAL INTERNSHIP

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.
Psychology

Professors: Alan G. Gittis, David B. Gray, Sandra K. Webster
Associate Professor: Mandy B. Medvin
Assistant Professor: Kirk M. Lunnen
Visiting Assistant Professor: Carla A. Bluhm
Part-Time Faculty: Brent L. Maguire
Chair, Dr. Webster

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

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. Since 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 101 and 102, or MTH 131 or MTH 141; and two of the following courses:
  BIO 110, BIO 111, 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, 301, 621 and 622.
  Recommended Psychology Electives: PSY 221/222, 271, 291, 411.
  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 271, 401, 421, 341. Students interested in working with children should also take PSY 221/222, 411; 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 281, 321, 635 and 636.
  Recommended Psychology Electives: PSY 211, 241, 301 and 311.
  Other Recommended Courses: ACC 201, BA 140, SOC 305.
Research/General Psychology Track:
Recommended Major Requirement Options: PSY 351, 321, 635 and 636 or 639 and 640.
Recommended Psychology Electives: PSY 341, 311, 211.

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:
  - Organizational Psychology (PSY 241)
  - Behavior Modification (PSY 271)
- 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 110, 111, 222 and 223; MTH 131, PHY 151, 4 semester hours of PHI 230-260

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 p. 212.) Neuroscience is offered in conjunction primarily with biology. (See p. 188.)

Interdisciplinary Minor: Childhood development is offered in conjunction with the education department. Coordinators are Mandy B. Medvin (Psychology) and Darwin Huey (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 (26 credit hours). The prescribed set of courses are: PSY 101, 221/222, 411, 271 or 281, 231; EDU 202, 203, 560 (student must have a 2.000 minimum grade point average and a minimum of 10 semester hours in psychology or education prior to doing the Field Experience).

PSYCHOLOGY COURSES

All courses are four semester hours unless noted.

Liberal Studies Requirement: PSY 101 and 251 may be used to satisfy the Social Thought and Tradition Intellectual Perspective; PSY 201 may be used to satisfy the Quantitative Reasoning Intellectual Perspective; PSY 341 may be used to satisfy the Scientific Discovery Intellectual Perspective. PSY 222 and ENG 102, PSY 251 and CS 252, PSY 262 and PHI 218, or PSY 261 and CS 271 taken together satisfy a Cluster Course requirement.

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 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. Prerequisites: PSY 101, a math course. Offered every semester. S. Webster.

PSY 211 Motivation. Examination of the ultimate and proximal factors that arouse, sustain and direct behavior. Prerequisite: PSY 101. Offered alternate years. A. Gittis.

PSY 221 Childhood and Adolescence. Principles of human growth and development during childhood and adolescence. Prerequisite: PSY 101. 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. **Prerequisite:** PSY 101. 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 segments of the course include learning, instruction, motivation, management, assessment and the learner. A field component with children and/or adolescents is included. This course is offered by the education department 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. **Prerequisite:** PSY 101. D. Gray.

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. PSY 101 will be helpful, but is not required. 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). **Prerequisite:** PSY 101.

PSY 281 Principles of Learning and Memory. Analysis 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. **Prerequisite:** PSY 101. 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 311 Psychology of Personality. A critical survey of the major theories of personality structure, dynamics, and development. **Prerequisite:** PSY 101. Offered alternate fall semesters. S. Webster.
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. D. Gray.

PSY 331 Psychology of Women. A course designed to provide information about a group that has often been overlooked in psychological theory and research. The uniqueness of the female experience will be viewed from a life span perspective. Offered alternate years. **Prerequisite:** PSY 101.

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. **Prerequisite:** PSY 101. A. Gittis.

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

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. A practicum involving a minimum of 3 hours per week of field experience is included. **Prerequisites:** PSY 401 and senior standing or consent of the instructor. K. Lunnen.

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. Staff.

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. Staff.

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. D. Gray.

PSY 637, 638 Applied Psychological Research I and II. K. Lunnen.

PSY 639, 640 Experimental and Personality Research I and II. S. Webster.

PSY 660, 670, 680, 690 Honors Research. (See p. 74.) Students enrolled in Honors Research participate in PSY Capstone I and II and the Advanced Research Seminars.

Psychology—Human Resources

Coordinator: David B. Gray (Psychology)
Degree Offered: Bachelor of Science
Major Program: Psychology—Human Resources

A significant grasp of behavioral 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: personnel searches, hiring, interviewing, worker evaluation and career development, benefits administration, human relations and technical training, 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
- ECO 150 Economic Reasoning
- BA 160 Financial Decisions
- BA 260 Labor Relations/Law
- BA 360 Human Resources
- BA 361 Compensation/Benefit
- PSY 101 Introduction
- PSY 201 Research Methods
- PSY 241 Organizational
- 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 101 and 102, Calc. and Elem. Func. I and II, or 131 Calculus, or 141 Discrete Analysis I

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.

Public Relations
*(See English and Public Relations, p. 139)*

Religion, History, Philosophy, and Classics

Professors: A. Dwight Castro (Classics), Eugene G. Sharkey (History)
Associate Professors: Verena Botzenhart (History)***, Russell E. Martin (History), Bryan S. Rennie (Religion, Philosophy), David C. Twining (History)
Assistant Professors: Ann L. Coble (Christian Education, Religion), Kang-Yup Na (Religion)
Visiting Assistant Professor: Timothy Cuff (History, Humanities)
Chair, Dr. Castro

Degree Offered: Bachelor of Arts
Major Programs: Christian Education, History, Latin, Philosophy, Religion
Minor Programs: 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, the requirements for the various majors and minors, and the specific course offerings of each discipline 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 peoples of faith;
- to understand the relationships between the religious and other dimensions of human existence;
- to deepen their own faith commitments;
- to act in just and compassionate ways that sustain and enrich global community.

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 and also above (p. 87) under *Pre-Seminary Preparation*.

**Requirements for the Major in Christian Education:** Christian education courses may be of value to any student who anticipates being a useful layperson in the church. Some students who take this major become Christian education directors or (if ordained) youth ministers in churches. The requirements for the major are a minimum of 44 semester hours and a maximum of 48 semester hours in courses in religion, distributed as follows:

- All of the following: 152, 171, 172, 252, 253, 351, 371, 560, and 601
- One of the following: 254, 352, 354, 355, 356
- One additional religion elective

One additional supporting religion course is also required, to be chosen from the following list: MUS 170, 171, 172, 180; PSY 221, 231, 291; or SOC 201, 301, 303.

Also recommended for students majoring in Christian education are additional courses from one or more of the following disciplines: art, philosophy, psychology, sociology, and theatre. Also desirable is REL 570.

Some students who major in Christian education elect a **Double Major in Christian Education and Elementary Education**. Students considering this combination should consult the chairs of education and of religion, history, philosophy, and classics as early as possible.
Students interested in **Youth or Campus Ministry** are encouraged to consult with their adviser, so that the Christian education or religion major may be adapted to these interests.

**Christian Education, Youth, or Campus Ministry Internships:** Majors interested in these vocational areas work under the direction of a faculty member and a field supervisor to study the responsibilities, organization, and administration of a program geared to their vocational focus. Specific details of each internship are determined by the student in consultation with both the faculty director and field supervisor.

**Requirements for the Major in Religion:** Within the religion major, there are two programs: the **Christian Tradition Program** and the **History and Philosophy of Religion Program**. A major in religion (either program) requires a minimum of 40 or 44 semester hours and a maximum of 48 semester hours in religion courses, as specified below. This major provides students with the opportunity to explore the foundational narratives, rituals, and documents; historical developments; theological formulations; and ethical expressions of major religions of the world.

**The Christian Tradition Program:** The minimum of 44 semester hours in religion courses must be distributed as follows:

- All of the following: 152, 252, 253, 351, and 601
- Two of the following: 254, 354, 355, 356
- Two of the following: 255, 256, 257, 258, 259, 267
- One of the following: 352, 353
- One additional religion elective

**The History and Philosophy of Religion Program:** The minimum of 40 semester hours in religion courses must be distributed as follows:

- All of the following: 261, 262, 263, 264, 361, and 601
- One of the following: 162, 163
- One of the following: 151, 252, 253
- One of the following: 362, 363, 364
- One additional religion elective

**Requirements for the Minor in Religion:** A minor in religion requires 24 semester hours of religion courses, including 161 and five additional religion courses, distributed as follows:

- One of the following: 151, 252, 253, 254, 354, 355, 356
- One of the following: 152, 255, 256, 257, 258, 259, 267, 353
- One of the following: 261, 262, 263, 264, 265
- Any two additional religion courses, at least one of which must be numbered 251 or higher.
Pre-Seminary Preparation (see also p. 87): 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 3.300 and a major GPA of 3.500 are required for admittance to the Honors Program.

RELIGION COURSES

All courses are four semester hours. In general, 100-level courses are introductory in nature, 200-level courses are thematic, and 300- or 400-level courses are more theoretical or methodologically oriented.

Liberal Studies Requirements: REL 151, 152, 161, 162, 252, 253, 255, 258, 259, 261, 262, 263 and 264 may be used to satisfy the Religious and Philosophical Thought Intellectual Perspective. REL 163 may be used to satisfy the Visual and Performing Arts Intellectual Perspective. A Cluster Course requirement may be satisfied by taking together the following pairs of courses: REL 162 and ENG 118, REL 263 and HIS 161, or REL 266 and PS 234.

REL 151 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 152 Understanding the Christian Faith. A study of the ways the Church has 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 are examined.

REL 161 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 162 Gender and Religion. A study of the different ways that gender and sexuality interact with and help inform religious experience and expression. Special attention is given to masculine and feminine images of the divine and their possible relationships to religious and social institutions, the place and role of women in the world’s religions, gender and sexuality in comparative mythology, feminist interpretations of religion, and the contested issues of “power” and “authority” that such topics inevitably raise.
REL 163 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 MUS 173.)

REL 171 Christian Education of Children. A study of the religious development of children as it relates to physical, mental, and emotional growth, and to educational experiences primarily in the Church.

REL 172 Christian Education of Youth and Adults. A study of the religious growth of youth and adults in terms of developing selfhood and opportunities through and in the Church for continuing study, worship, fellowship, and service.

REL 252 Old Testament/Hebrew Bible. A historical and critical 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 either Christian education or the Christian Tradition Program take this required course before taking REL 253.

REL 253 New Testament. A historical and critical 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 these writings. It is highly recommended that students majoring in either Christian education or the Christian Tradition Program take REL 252 before taking this course.

REL 254 Paul and His Letters. A critical 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. Prerequisite: at least one of the following: REL 151, 252, or 253; or permission of instructor.

REL 255 History of Christianity I: Christ and Caesar. An examination of the development 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 all its political, socioeconomic, religious, and cultural aspects. The emphasis will be on the development of the institutional Church and its worship, rather than on the development of its theology. (Also listed as HIS 120.)

REL 256 History of Christianity II: The Middle Ages. A sociocultural examination of the development of early European society, with a special emphasis on Church history, from 300-1500. Beginning with a basic definition of medieval society, the course also emphasizes the emergence of feudalism, the middle classes, urban centers, and the earliest forms of the nation-state. (Also listed as HIS 123.)

REL 257 History of Christianity III: Renaissance and Reformation. A study of the emergence of modern European civilization, with emphasis on Church history. Beginning with a review of early European society and institutions, the course traces their replacements by the national state, capitalism, and the reformed churches. (Also listed as HIS 124.)

REL 258 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 259 Christian Ethics.** A study of the ways in which Christians answer the questions, What is right and wrong? What determines moral and immoral behavior? Issues considered include human sexuality, prejudice and oppression, capital punishment, war, and bioethics (abortion, genetic engineering, euthanasia).

**REL 261 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 262 Religions from South Asia.** A study of the histories, narratives, rituals, scriptures, and meditative practices that have historically made up the major religious traditions of South Asia, with special attention given to Hinduism in its modern Indian and western forms.

**REL 263 Religions from East Asia.** A historical, social, and philosophical study of Confucianism, Buddhism, and Daoism, as these three broad traditions developed and interacted in China and Japan from the 6th century BCE down to the modern era, with specific consideration given to the modern period.

**REL 264 Religion In America.** A study of the many religions which constitute America’s religious mosaic. Attention is given to American religious history from 1600 to the present and to the ways in which religious pluralism relates to America’s commitment to religious freedom and to America’s ongoing quest for unity amid this diversity. This course includes an emphasis on pacifist religious movements and may be counted towards a minor in peace studies.

**REL 265 Religious Issues in Public Education.** A study of the issues and ongoing debates surrounding the relationship between religion and public education in the U.S.A. Among the issues considered are prayer and other devotional activities, values education (including the “secular humanism” controversy), churches and the schools, the role of the courts and court decisions, the place of religion in standard courses and textbooks, and teachers and their convictions. *(Also listed as EDU 213.)*

**REL 266 Celtic Spirituality.** Using an historical-theological approach, this course explores both the beliefs and practices of various kinds of spirituality in Ireland and Northern Ireland, including pre-Christian beliefs and Christianity as it has developed there, from around 1000 BCE to the present. Special attention will be given to the current Catholic-Protestant conflict.

**REL 267 Reformed/Presbyterian Theology and Worship.** What is the reformed tradition, or Presbyterianism? What beliefs and practices distinguish the Reformed/Presbyterian 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/Presbyterian tradition. Through understanding Reformed/Presbyterian theology, we will also examine Reformed/Presbyterian worship. Readings from John Calvin’s *Institutes of the Christian Religion*, the classic text for the Reformed/Presbyterian tradition, will play an important role in the course.

**REL 351 Applied Biblical Interpretation.** Application of various methods of interpretation to selected biblical texts chosen by the student and the instructor. 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). *Prerequisite:* REL 252 or 253.
REL 352 Jesus. (or: All You Ever Wanted to Know about Jesus, but Were Too Afraid to Ask). A critical survey of the research on Jesus of Nazareth, focusing on 1) the gospel accounts and other early Christian writings, and 2) methods of interpretation. It will explore the complexities of the historical Jesus research and also the intersection of faith and history in the Christian traditions. Some questions it will entertain are: Do we know who Jesus was? Does it matter that we know who Jesus was? Was Jesus the messiah? Was Jesus the first Christian? Prerequisite: at least one of the following: REL 151, 252, or 253; or permission of the instructor.

REL 353 Christian Theology Today. A study of the ways in which Christian theologians attempt to relate the Christian faith to secularism and other issues in the modern world. Among the approaches examined are various liberation theologies (Latin American, Black, Feminist), the new Evangelicalism, and Roman Catholicism.

REL 354 The Gospels. A study of the Gospels, with emphasis on their literary content and application to contemporary life, as well as their theological and historical aspects.

REL 355 The Prophetic Literature of Israel. A study of one or more of the prophetic books of the Hebrew Bible/Old Testament, concentrating on its theology and its application to today.

REL 356 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 357 The Life and Fiction 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 361 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 362 Psychology of Religion. A historical and conceptual survey of psychological theories developed over the last 100 years (neurobiological, behavioral, psychoanalytic, developmental, and humanistic, among others) and their applicability to such topics as religion and emotional health, conversion, mystical and visionary experience, altered states of consciousness, sexuality and religion, prayer, faith, near-death experiences, and religious violence.

REL 363 Sociology of Religion. 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 364 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 371 Administration in Christian Education.** A study of organizational and administrative principles as they relate to church programming. The course includes the dynamics of leadership, groups, and supervision, as well as practical applications of the principles through workshop experiences.

**REL 451 Advanced 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 151, 152, 252, 253, 254, 259, 266, 353.

**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. Prior arrangements must be made with one of the religion faculty and approved by the department chair.

**REL 601 Religion Capstone.** A required course for all majors in religion or Christian education. Opportunities are provided for individual or group study in areas of special interest to the students in the course.

**REL 620, 630, 640, 650 Independent Study.** Individual study in a specific academic area under the guidance of a selected staff member. *Prerequisite:* consent of the instructor and the department chair.

**REL 660, 670, 680, 690 Honors Project.** (See p. 74.)

**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 (44 semester hours for students seeking secondary education certification) in history courses, distributed as follows: 101, 102, two courses in United States history, one course in a third area (Latin America, Russia, the Far East), one explorations seminar (300-level), 410 (typically taken in the sophomore year), 420 (typically taken in the junior year), 601 (the senior capstone), one or more internships totaling four semester hours (normally 560, but students seeking secondary education certification fulfill this requirement by student teaching), and two history electives. Majors must also fulfill a chronological distribution requirement (one course each in Ancient/Medieval history, Early Modern history,
and Modern history). Except for students seeking secondary education certification (see below), no other supporting courses from other disciplines are required.

First-year students who declare a major in history normally choose from among the following courses: 101, 102, 201, 203, 204, and 205.

Requirements for the Minor in History: A minor in history requires 24 semester hours in history courses, including one course in European history, one course in United States history, one course in a third area (Latin America, Russia, the Far East), one explorations seminar (300-level), and two history electives. Further details are available from the history area coordinator.

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 231 or 232, and SOC 101. They must also complete all the requirements for a minor in secondary education (see p. 130).

NOTE: The Commonwealth of Pennsylvania is in the process of revising the requirements for secondary education teacher certification. Students who are certified beginning in calendar year 2004 will be certified in civics education, rather than in social studies. The Departments of Education and Religion, History, Philosophy, and Classics will create a special document to inform history majors in the secondary education teacher certification program about the revised requirements, once they are finalized.

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 3.300 and a major GPA of 3.500 are required for admittance to the Honors Program.

HISTORY COURSES

All courses are four semester hours unless noted.

Liberal Studies Requirement: HIS 101, 102, 121, 122, 123, 125, 131, 151, 152, 171, 172, 201, 203, 204, 205, 221, 222, 223, and 520 may be used to satisfy the Humanity and Culture Intellectual Perspective; HIS 120 and 153 may be used to satisfy the Religious and Philosophical Thought Intellectual Perspective; HIS 125, 128, 129, 161, 162, 202, 220, 222, and 231 may be used to satisfy the Social Thought and Tradition Intellectual Perspective. A Cluster Course requirement
may be satisfied by taking together the following pairs of courses: GEO 101 and GEL 110; HIS 122 and ENG 112; HIS 125 and CLC 121; HIS 127 and ENG 110; HIS 128 and CLC 131; HIS 161 and REL 263; HIS 171 and BIO 520; HIS 202 and SOC 105; HIS 223 and MUS 103; HIS 302 and ENG 104; or HIS 309 and SOC 108.

**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 120 History of Christianity I: Christ and Caesar.** An examination 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 all its political, socioeconomic, religious, and cultural aspects. *(Also listed as REL 255.)*

**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 A.D. 565. Special attention is given to the development of Roman political, social, and religious institutions.

**HIS 123 The Middle Ages, 300-1300.** A sociocultural 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. *(Also listed as REL 256.)*

**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, the traces their replacements by the national state, capitalism, and the reformed churches. *(Also listed as REL 257.)*

**HIS 125 Rise of 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 127 Europe, 1900-1945.** A study of the political, social, and economic development of the European continent from the opening of the century to the conclusion of World War II.

**HIS 128 Europe from 1945.** A study of the reconstruction and development of European society from the close of the Second World War to the present day. Topics like the European Community and the Cold War receive special attention.

**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 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 258.)*

HIS 161 **History of 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 **History of 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 201 **Colonial America to 1789.** A study of the American colonies from their founding to the adoption of the U.S. Constitution. The course will focus on the encounter of Europeans, Africans, and Native Americans in the Atlantic basin, and how that encounter shaped a new civilization in North America. Emphasis will be placed on the social, cultural, and religious history of early America, the war for independence, and the creation of the American Republic.

HIS 202 **Native American Culture and the Frontier Experience.** For hundreds of years the history of the North American continent was marked by encounter and conflict between the indigenous Native American tribes and the Europeans and Americans who colonized the continent. The course will investigate the history of many of the larger tribes, but the focus will be on the frontier that marked the border between two civilizations. The course will also investigate how both cultures were changed by the conflict, and how the physical environment was transformed by European and American values. The course will begin with the initial contacts in the Caribbean and conclude with the status of Native Americans today.

HIS 203 **19th Century America, 1789-1877.** A study of national development from the adoption of the Constitution in 1789 to the end of Reconstruction. Religion, reform, sla-
very, the development of the West, the creation of new political parties, and the Civil War are emphasized.

**HIS 204 Emergence of Modern America, 1877-1918.** A study of national development from the end of Reconstruction to the end of the First World War. Topics examined include the settlement of the West, the rise of industry and the response of labor, European immigration, urbanization, imperialism, intellectual currents, and social reform.

**HIS 205 America in the 20th Century.** A study of the United States from the end of World War I to the present. Cultural, social, economic, and political developments receive attention.

**HIS 221 Popular Culture in the United States: A History.** A survey of popular expression in art, music, literature, theater, 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 231 Foreign Relations of the United States: A History.** Examines 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 who are considering the major an opportunity to work beyond the introductory course level.

**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. In this course we will explore the actual causes, as well as the perception of the causes of the war; the military strategy during the war, as well as the post-war military analysis of its successes and mistakes; the social unrest caused by popular as well as elite opposition to the war; and both the short-range and long-range results of the war (including Hollywood’s rewriting of its history).

HIS 304 Sea Power. Examines the influence of naval power on the major empires of history from ancient Greece to the late 20th century. Emphasis is on the use of sea power to achieve political and economic advantage; the evolution of ship design, navigation, and ordnance; and the influence of technology on the tactics of naval warfare.

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? We 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 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 classics 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). Prerequisites: HIS 101 and 102.
HIS 520 America in the Age of Revolution. This course explores the American Revolution and the creation of the American Republic in the context of global conflict and change in the period from 1763-1800. There is a two-week travel component before the semester to visit colonial sites in Virginia. Offered in the Spring Semester.

HIS 560, 570, 580, 590 Field Experience/Internship. Prerequisite: consent of instructor.

HIS 601 History Capstone. Research in selected topics. This course is ordinarily restricted to history majors and is required of senior history majors. Prerequisites: HIS 101, 102, 410 and 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. 74.)

GEOGRAPHY

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.

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, including 101 and 102; two courses from 200–210; two courses from 212–222; one course from 230–260; 401; 601 or 660–690; and one philosophy elective. Students majoring in philosophy will be required to take four philosophy courses before taking 401. They must also take 401 before taking 601 or 660–690 (the capstone or Honors).

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 enhances almost any major by adding depth and breadth to a degree only somewhat less than that of the major. The philosophy minor requires 24 semester hours in philosophy courses. These must include PHI 101 and 102, one history of philosophy course (200–210), one topics course (212–222), one ethics course (230–260), and one further philosophy elective. The philosophy adviser will help students select the other courses best suited to each person’s interests. Student minoring in philosophy will be required to take one 100-level course before taking a 200-level course, and three philosophy courses before taking a 400-level course.

**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, available from the department, should be discussed with the adviser before first-year courses are scheduled. 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 3.300 and a major GPA of 3.500 are required for admittance into the Honors Program. Students taking Honors in Philosophy will fulfill all the requirements of the Philosophy Capstone.

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**PHILOSOPHY COURSES**

All courses are four semester hours unless noted.

**Liberal Studies Requirements:** PHI 101, 102, 200–210, 212–222 and 230–260 may be used to satisfy the Religious and Philosophical Thought Intellectual Perspective.

**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 200–210 The History of Philosophy. Studies of various historical periods of philosophy, such as the Ancient, Mediaeval, and Modern periods, and studies of the thought characteristic of particular centuries, such as the nineteenth and twentieth centuries. The historical context of the period will be considered as relevant to philosophical thought. Detailed descriptions of individual courses will be made available before the semester in which that course is offered. More than one PHI 200–210 may be taken for credit, as long as each course has a different number, indicating different content. All History of Philosophy courses receive Intellectual Perspective credit in Religious and Philosophical Thought.

PHI 212–222 Topics in Philosophy. Philosophical studies of various specific topics, such as philosophy of science, philosophy of art, of religion, of mind and so on. Detailed descriptions of individual courses will be made available before the semester in which that course is offered. More than one PHI 212–222 may be taken for credit, as long as each course has a different number, indicating different content. All Topics in Philosophy courses receive Intellectual Perspective credit in Religious and Philosophical Thought.

PHI 230–260 Practical Ethics. Studies in the application of moral philosophy to ethical questions raised by the practical issues of our time. Individual sections 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. Detailed descriptions of individual courses will be made available before the semester in which that course is offered. More than one PHI 230–260 may be taken for credit, as long as each course has a different number, indicating different content. All Practical Ethics courses receive Intellectual Perspective credit in Religious and Philosophical Thought.

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.

PHI 601 Philosophy Capstone. Advanced study of special topics. Required of all senior philosophy majors. 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 attempt to produce a polished article on a selected topic, using an appropriate style and format. They will attempt to publish this paper in a suitable journal. Students taking Honors in Philosophy (PHI 660–690) will fulfill all the requirements of the Philosophy Capstone.

PHI 620, 630, 640, 650 Independent Study. 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. 74.) NOTE: Students taking Honors in Philosophy will fulfill all the requirements of the Philosophy Capstone (PHI 601).

Classics (Latin and Ancient Greek)

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. Although
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), provision can be made for students who desire to study Medieval (or “Ecclesiastical”) Latin (i.e., the form used for most sacred music texts). Although 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), provision can be made for those students who desire to study the Attic dialect (the form in which most “Classical” Greek literature was written).

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 below 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 above 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” and are listed below.

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.

GREEK COURSES

All courses are four semester hours unless noted.

Liberal Studies Requirement: GR 201 and 251 may be used to satisfy the Foreign Language Intellectual Perspective.

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 phonetics and 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 review of GR 101 and 102, followed by further study of ancient Greek morphology and syntax. Upon successful completion of GR 201, students will be prepared to progress to the reading of either Classical or Koine (New Testament) 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 251 and consent of instructor.

GR 620, 630, 640, 650 Independent Study. Courses designed for advanced students. These include both guided reading in Greek literature and an individual research project resulting in a scholarly paper. Prerequisites: GR 201 and consent of the department chair.

Latin

Requirements for the Major: A major in Latin requires a minimum of 36 semester hours and a maximum of 48 semester hours in Latin courses, including 301, 351, and 601. 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 courses: LAT 301, 351, 560, and 601. A required supporting course is HIS 122. Students must also complete all requirements for a minor in secondary education (see p. 130).

Honors in Latin: The department encourages eligible majors in Latin to pursue Honors Research. A general GPA of 3.300 and a major GPA of 3.500 are required for admittance to the Honors Program.

LATIN COURSES

All courses are four semester hours unless noted.

Liberal Studies Requirement: Latin courses numbered 201 or higher may be used to fulfill the Foreign Language Intellectual Perspective.

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 Latin phonetics and pronunciation, 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 both adapted and original 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 in developing various sorts of Latin prose exercises for classroom use, accompanied by a further study of Latin syntax. This course is designed for students who plan to teach Latin, but is open to other interested students. **Prerequisite:** LAT 202 or equivalent.

LAT 351 Roman Civilization. Readings in either original or adapted Latin texts (both literary and inscriptive) selected to illustrate aspects of Roman civilization, such as political and civic life, social life, religion, philosophy, and education. **Prerequisite:** LAT 202 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 202 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 202 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 202 or equivalent.

LAT 404 Literature of the Augustan Age II. The reading of selections from Livy and Vergil (the Aeneid). **Prerequisite:** LAT 202 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 202 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.: Seneca the Younger, Pliny the Younger, Suetonius, Tacitus. **Prerequisite:** LAT 202 or equivalent.

LAT 560, 570, 580, 590 Field Experience/Internship. **Prerequisite:** at least one Latin course numbered 202 or higher or consent of instructor.

LAT 601 Latin Capstone. A capstone course required of all Latin majors. This course requires each student to undertake an independent research project under the direction of the Classics faculty. Latin majors who undertake an Honors Project (see below) will use the Honors Project for the Capstone research project.

LAT 620, 630, 640, 650 Independent Study. Courses designed for advanced Latin students. These include both guided reading in Latin literature and 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. 74.)
Comparative Literature and Culture—Classics

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. The descriptions given below are of a general nature; 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.

Liberal Studies Requirement: CLC 162 may be used to satisfy the Visual and Performing Arts Intellectual Perspective. Most other courses labeled Comparative Literature and Culture (CLC) that deal with classical culture may be used to fulfill the Intellectual Perspective in Humanity and Culture. Students should check carefully the specific course listings for each semester to determine which courses may be used to fulfill this requirement.

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COMPARATIVE LITERATURE AND CULTURE COURSES

All courses are four semester hours unless noted.

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.

Linguistics

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LINGUISTICS COURSES

All courses are four semester hours unless noted.

LIN 101 Latin and Greek in Contemporary English. A course designed to introduce students to the principles of etymology and to provide a useful knowledge of the roots, suffixes, and prefixes that form the basis of much of contemporary English vocabulary. No prior knowledge of Greek or Latin is required.

LIN 102 Latin and Greek in Scientific Terminology. A course designed to help students become more familiar with the special vocabulary of the sciences (including the medical profession) through the study of the Latin and Greek roots, prefixes, and suffixes upon which this vocabulary is largely based. No prior knowledge of Greek or Latin is required.

Sacred Music

(See Music, p. 172)
Science
(No Major programs)

SCIENCE COURSES

All courses are four semester hours unless noted.

Liberal Studies Requirements: SCI 140, 141, and 142 may be used to satisfy the Scientific Discovery Intellectual Perspective.

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.”

Secondary Education
(Minor program only—See Education, p. 130)

Social Policy
(Concentration only—See Political Science and Sociology, p. 202)
Sociology
(See Political Science and Sociology, p. 202)

Spanish
(See Modern Languages, p. 162)

Speech Communication
(See Communication Studies, Theatre, and Art, p. 108)

Theatre
(See Communication Studies, Theatre, and Art, p. 111)

Writing
(Minor program only—See English and Public Relations, p. 136)
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CLASS OF 2004
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The Administration, 2002-2003

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

Executive Staff

R. THOMAS WILLIAMSON (1997) President of the College
B.A., College of Wooster; J.D., University of Baltimore

WILLIAM J. BIRKHEAD (1987) Vice President for Finance and Management Services
B.S., Purdue University; M.B.A., University of Michigan
GLORIA C. CAGIGAS (1989-92; 1994) Vice President for Institutional Advancement
B.S., Lake Erie College

JOHN DEEGAN JR. (1994) Vice President for Academic Affairs Dean of the College, Professor of Political Science
B.S., Evangel College; M.A., Ph.D., University of Michigan

NEAL A. EDMAN (1988) Dean of Student Affairs
B.A., State University of New York, Oswego; M.S., Ed.D., Indiana University

B.A., Malone College; M.Ed., Walsh University

**President’s Office**

STEVEN M. ALLEN (2001) Chaplain
B.A., College of Wooster; M.Div., Yale Divinity School, Yale University

JAMES E. DAFLER (1988) Director of Athletics Head Men’s Basketball Coach
B.A., Capital University; M.Ed., Ohio University

SEAN M. KELLY (1991) Head Baseball Coach Assistant Football Coach
B.A., Westminster College; M.Ed., University of Virginia

JOHN M. KLEIN (1999) Assistant Football Coach, Assistant Baseball Coach
B.S., Youngstown State University

KETURAH LANEY (1987) Chapel Assistant
B.A., Gannon University

LARRY R. ONDAKO (1998) Head Track Coach Assistant Basketball Coach
B.A., Westminster College; M.S.Ed., Duquesne University

JAN M. REDDINGER (1996) Head Softball Coach Assistant Women’s Soccer Coach
B.A., West Liberty State University; M.S., Eastern Illinois University

ROSANNE M. SCOTT (2001) Head Women’s Basketball Coach Assistant Track Coach
B.A., Bethany College

JEROME M. SCHMITT (2000) Head Football Coach
B.S., Westminster College
TAMMY L. SWEARINGEN (1993) Assistant Professor of Physical Education
Assistant Athletic Director
Assistant Swimming Coach, Head Women’s Volleyball Coach
B.S., Youngstown State University; M.S., University of Akron

GIRISH THAKAR (1998) 
Head Soccer Coach
Assistant Track Coach
B.S., Slippery Rock University

SHAUN J. TOOMEY (1987) 
Athletic Trainer
B.S., Miami University of Ohio; M.S., Indiana State University

Academic Affairs

JOHN DEEGAN JR. (1994) 
Vice President for Academic Affairs
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JESSE T. MANN (1984) 
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BRANISLAV CIKEL (2001) Assistant Enterprise Network Manager

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B.S., Geneva College

MARY JANE MOWERY (1999) PC Specialist
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Admissions and Financial Aid

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WILLIAM J. BIRKHEAD (1987) Vice President for Finance and Management Services  
B.S., Purdue University; M.B.A., University of Michigan

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B.A., M.Ed., Westminster College

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SANDRA L. SHEARER (1985) Bookstore Manager  
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DONALD E. SHELENBERGER (1976) Business Manager  
B.A., Westminster College; M.A., Purdue University

OWEN WAGNER (1998) Director of Physical Plant  
B.S., University of Pittsburgh

Institutional Advancement

GLORIA C. CAGIGAS (1989-92; 1994) Vice President for Institutional Advancement  
B.S., Lake Erie College

PATRICK S. BROADWATER (1999) Publications Coordinator  
B.A., Allegheny College

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B.A., Westminster College; M.A., University of Wisconsin

ELIZABETH E. HINES (1980) Development Officer for Leadership Gifts  
B.A., M.Ed., Westminster College

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B.A., M.Ed., Westminster College

WILLIAM J. MALONEY (1999) Director of Church Relations  
B.A., Point Park College; M.Div., Pittsburgh Theological Seminary

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B.A., Youngstown State University

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B.A., Pennsylvania State University; M.Ed., Slippery Rock University

JOSEPH M. ONDERKO (1995) Sports Information Director  
B.S., Robert Morris College; M.Ed., Westminster College
THE DIRECTORIES

244 / Westminster College

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A.A.B., B.F.A, Youngstown State University

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B.S., Geneva College

M. THOMAS TAYLOR (1994) Director of Research and Foundation Relations
B.S., University of New Hampshire; M.Ed., M.A., North Carolina State University

Student Affairs

NEAL A. EDMAN (1988) Dean of Student Affairs
B.A., State University of New York, Oswego; M.S., Ed.D., Indiana University

MOLLY A. BURNETT (1999) Assistant Dean of Student Affairs, Residence Life and Leadership Development
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JUDITH W. DUDA (1983) Director of Student Health Center
R.N., Presbyterian University Hospital School of Nursing

KATHLEEN J. EDMISTON (2000) Assistant to the Director, Career Center
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CAMILLE HAWTHORNE (1988) Associate Dean of Student Affairs
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JEANNETTE HOOKS (2001) Diversity Coordinator
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JOHN MANSELL, M.D. College Physician
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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.

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B.S., James Madison University; M.A., Binghamton University

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B.S., M.S., Shippensburg University; Ed.D., University of Pittsburgh

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B.M.E., University of Delaware; D.M.A., University of Maryland

RONALD P. BERGEY (1962) Professor of Accounting
B.S., Juniata College; M.B.A., Indiana University; C.P.A. (Pennsylvania)

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CARLA A. BLUHM (2000) Visiting Assistant Professor of Psychology
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Captain William McKee Chair of Economics and Business  
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Chair of the Department of Religion, History, Philosophy, and Classics  
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Director of Orchestra  
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JAMES L. CHERNEY (2000)  Instructor of Speech  
B.A., Butler University; M.A., Indiana University

ANN L. COBLE (1999)  Assistant Professor of Christian Education  
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Chair, Law PAC  
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MOLLY P. SPINNEY (1975)  
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TAMMY L. SWEARINGEN (1993) Assistant Professor of Physical Education
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DAVID G. SWERDLOW (1990) Associate Professor of English
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MILAGROS Z. SWERDLOW (1997) Lecturer
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BETTY P. TALBERT (2000) Visiting Instructor of Business Administration
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B.S., B.A., Hastings College; M.S., Fort Hays State University; Ph.D., Florida State University

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B.S., Birmingham Southern College; M.Ed., University of Tennessee at Chattanooga; Ph.D., University of Pittsburgh

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Emeriti

MONIKA A. BECKER (1980-2001) Professor of Biology Emerita
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ROBERT E. CONWAY (1967-90) Professor of Education Emeritus
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CHARLES H. COOK JR. (1953-85) Professor of English Emeritus
    A.B., Northeastern University; M.A., Ph.D., Boston University

JAMES A. CUMMINS (1963) Professor of Spanish Emeritus
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    Curator of Archives 1995–
    A.B., Erskine College; Ph.D., Vanderbilt University

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    Curator of Cultural Artifacts
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    College Historian 1952- 
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JOSEPH R. HENDERSON (1956-80) Professor of Education Emeritus
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G. EUGENE HILL (1974-98)  Associate Professor of Education Emeritus
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