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The University

Bradley University is an independent, privately endowed, coeducational institution. Located on an 85-acre campus in Peoria, Illinois, Bradley was founded in 1897 as Bradley Polytechnic Institute by Lydia Moss Bradley as a memorial to her children and husband, Tobias. It became a four-year college in 1920 and in 1946 became a university and began offering graduate programs. Bradley is accredited by the North Central Association of Colleges and Schools.

With approximately 5,300 undergraduate and 800 graduate students, Bradley is the ideal size for living and learning. Bradley provides a broad choice of academic and preprofessional programs with more than 100 programs of study in five colleges: the College of Liberal Arts and Sciences, College of Education and Health Sciences, College of Engineering and Technology, Foster College of Business Administration, and Slane College of Communications and Fine Arts. Through its Graduate School, Bradley awards 14 degrees in over 30 academic areas, including a doctor of physical therapy degree. Programs offered through Continuing Education extend the resources of the university to promote lifelong learning.

The average class size is 24 students and the student-to-faculty ratio is 14:1. Bradley has more than 300 full-time faculty who are both active researchers and committed teachers, providing personalized attention in learning and academic advising. All courses are taught by professors, not graduate assistants, and team projects and collaboration are emphasized in every area of university life. After class, Bradley students have abundant opportunities for involvement in campus life—including more than 240 clubs and organizations, NCAA Division I athletics, intramural and club sports, study abroad, and the Lewis J. Burger Center for Student Leadership and Public Service.

Technology is integrated across the campus—from the digital editing suites used by communication students to the robotics used in the engineering labs. Students can borrow wireless laptops to use in Cullom-Davis Library, work in computer labs across campus, and have access to the Internet in every residence hall. Of the 300 universities participating in Internet2, Bradley is one of the few non-doctoral research institutions offering access to this high-performance network for faculty research and student-faculty collaborative projects.

Bradley students do exceptionally well in their chosen careers and advanced studies after graduation. Last year the overall placement rate for Bradley graduates was 96 percent. Graduates of Bradley University have become leaders in every field of endeavor.

Visits to the Bradley Campus

Visitors and prospective new students are welcome to tour the Bradley campus. Appointments for campus tours, or to discuss undergraduate admissions and financial assistance, may be made by contacting the Office of Undergraduate Admissions. Visits may be scheduled between the hours of 8:30 a.m. and 5:00 p.m. daily and between 10:00 a.m. and 2:00 p.m. most Saturdays during the school year. In addition to campus visits, the University sponsors special visit programs throughout the year for prospective new freshmen and transfer students.

Call (309) 677-1000 or (800) 447-6460 or send e-mail to admissions@bradley.edu to arrange your campus visit. Visit us online at admissions.bradley.edu.

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Bradley University is committed to a policy of non-discrimination and the promotion of equal opportunities for all persons regardless of age, color, creed, disability, ethnicity, marital status, national origin, race, religion, sex, sexual orientation, or veteran status. The University also is committed to compliance with all applicable laws regarding non-discrimination, harassment, and affirmative action.

This Catalog represents the University’s best effort to communicate information on academic programs, policies, rules, and regulations that were in effect at the time of its printing. Students should be aware that the University reserves the right to modify these programs, policies, rules, and regulations at any time within a student’s term of residence. The University’s policy is to provide notice of any such modifications sufficiently in advance of their implementation to ensure adjustments without undue inconvenience. Before pre-registering for any academic term, students should contact the administrative office of their academic department or college to verify the most current information.
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Directory

The mailing address for all departments is:
Bradley University
1501 W. Bradley Ave.
Peoria, Illinois 61625
(309) 676-7611 • bradley.edu

Admissions (graduate)
The Graduate School,
Bradley Hall • (309) 677-2375 • bradley.edu/academics/grad

Admissions (undergraduate)
Office of Undergraduate Admissions,
Visitors Center • (309) 677-1000 • (800) 447-6460 • admissions.bradley.edu

Alumni Relations
Comstock Hall/Alumni Center • (309) 677-2240 • (800) 952-8258 • bradley.edu/alumni/

Billing & Payment
Controller’s Office,
Swords Hall • (309) 677-3120 • sfs.bradley.edu

Continuing Education
Continuing Education Building • (309) 677-2523 • bradley.edu/continue/

Financial Assistance
Office of Financial Assistance,
Swords Hall • (309) 677-3089 • sfs.bradley.edu

Fraternities and Sororities
Center for Residential Living and Leadership,
Sisson Hall • (309) 677-2428 • bugreeklife.com

Health Services
Heitz Hall • (309) 677-2700 • bradley.edu/eddev/cwc.html

Housing
Executive Director of Residential Living and Leadership,
Sisson Hall • (309) 677-3221 • bradley.edu/housing

International Students
Multicultural Student Services,
Garrett Center • (309) 677-2646 • bradley.edu/multicultural

Public Relations
Swords Hall • (309) 677-2242
bradley.edu/pubinfo/Newsline

Publications
Swords Hall • (309) 677-3391
bradley.edu/ pubs/publications.html

Registrar’s Office (Registration, Records, Transcripts)
Swords Hall • (309) 677-3101 • bradley.edu/registrar

Schedule of Classes
bradley.edu/classes

Smith Career Center
Burgess Hall • (309) 677-2510 • explore.bradley.edu/scc

Student Affairs
Sisson Hall • (309) 677-3148 • bradley.edu/students/dosa

Student Activities
Student Center • (309) 677-3050 • bradley.edu/sao

Student Consumer Information
University Relations • Swords Hall • (309) 677-3164

Student Support Services
Sisson Hall • (309) 677-3658 • bradley.edu/students/support/index.html

Study Abroad, International Programs
Caterpillar Global Communications Center
(309) 677-2400 • studyabroad.bradley.edu/

Summer and Interim Sessions
Continuing Education • (309) 677-2374 • bradley.edu/classes

1Federal regulations require universities to make student consumer information available to prospective and current students concerning: financial assistance information; institutional programs and policies; graduation rates; safety programs, policies, and crime statistics; athletic program participation rates and financial support data; and rights under Family Education Rights and Privacy Act. This information may be obtained by requesting the Student-Right-to-Know and Campus Security Act Compliance Report from Bradley University’s Office of University Relations at (309) 677-3164. Safety information and crime statistics are available online at bradley.edu/police/.
Our Vision and Mission

Our Vision
Bradley University is committed to excellence. Already one of the best private comprehensive universities in the Midwest, Bradley will be one of the finest institutions of its type in the nation.

Our Mission
Bradley University is committed to nurturing the multifaceted development of students to enable them to become leaders, innovators, and productive members of society. Our graduates are prepared for life and professions in a changing world and they are able to cross academic, geographic, and cultural boundaries. A Bradley education is characterized by small classes, active learning, mentoring by highly qualified faculty, challenging academic programs, opportunities for study abroad, and numerous co-curricular activities.

We recruit, develop, and support faculty who are passionate educators and outstanding scholars whose research and creative contributions benefit society. We expect and reward pedagogy and scholarship of exceptional quality and influence.

A distinctive feature of Bradley University is our cohesive sense of community that unites faculty, students, staff, and alumni. Our tradition of collective responsibility is founded on a commitment to the values of academic freedom, civility, diversity, and respect for the individual. Our exemplary system of shared governance both represents and sustains our sense of community and fundamental values.

We promote and facilitate collaboration among all members of the University community. Students learn teamwork and leadership through group projects and collaborate with faculty on research and creative production. Likewise, faculty collaborate with colleagues across departmental, college, and institutional boundaries to elevate the quality and impact of their work. The University’s strategic partnerships with business, cultural, and governmental institutions provide benefits to the community and society and create additional learning opportunities for students.
On April 10, 1897, ground was broken for Bradley Hall. What had been prairie-land cornfield was transformed into a seat of learning because of the remarkable courage, strength, and determination of one woman, Mrs. Lydia Moss Bradley.

Lydia Moss Bradley had seen all of her hopes, ambitions, and dreams for her six children end in their untimely deaths. She and her husband, Tobias Bradley, had devoted much time, thought, and discussion to how their wealth might be used as a fitting memorial to their children and considered establishing an orphanage.

Unfortunately Tobias died in May of 1867, before their dream could be realized. Alone, Mrs. Bradley devoted herself unreservedly to the achievement of their goal. After some study and travel to various institutions, Mrs. Bradley decided that, instead of an orphanage, she wanted to found a school where young people could learn how to do practical things to prepare them for living in the modern world. In 1892 she purchased a controlling interest in Parsons Horological School in LaPorte, Indiana, the first school for watchmakers in America, and moved it to Peoria. She specified in her will that the school should be expanded after her death to include a classical education as well as industrial arts and home economics: "...it being the first object of this Institution to furnish its students with the means of living an independent, industrious and useful life by the aid of a practical knowledge of the useful arts and sciences."

In October 1896 Mrs. Bradley was convinced by Dr. William Rainey Harper, president of the University of Chicago, to move ahead with her plans and establish the school during her lifetime. Bradley Polytechnic Institute was chartered on November 13, 1896. Mrs. Bradley initially provided seventeen and a half acres of land; funds for two campus buildings, including laboratory equipment and library books; and annual operating expenses.

Contracts for Bradley Hall and Horology Hall (later renamed Westlake) were awarded and work moved ahead quickly. Fourteen faculty and 150 students began classes in Bradley Hall on October 4, 1897—with 500 workers still hammering away. (The Horological Department added another eight faculty and 70 students.) Bradley Polytechnic Institute was formally dedicated on October 8, 1897. Its first graduate, in June 1898, was Corinne Unland.

By 1899 there were 350 pupils in the School of Arts and Science at Bradley, about equally divided between men and women. Instruction was offered in biology, chemistry, food work, sewing, English, German, French, Latin, Greek, history, industrial arts, drawing, mathematics, and physics. Pleased with its progress, Mrs. Bradley transferred to the school the rest of her estate, including nearly 1,000 different pieces of property, reserving its use and profits during her lifetime. At Founder's Day in 1906 she announced an additional gift to build Hewitt Gymnasium, now Hartmann Center for the Performing Arts. Mrs. Bradley died on January 16, 1908, at the age of 91.

The Institute continued to grow and develop to meet the educational needs of the region. Bradley became a four-year college offering bachelor's degrees in 1920 and a full university offering graduate programs in 1946, when it was renamed Bradley University.

Today, Bradley alumni total more than 60,000 worldwide. Prominent alumni include David Markin '53, president and chairman, Checker Motors Co., L.P.; General John Shalikashvili '58, retired chairman of the Joint Chiefs of Staff; Keith Bane '61, founder of Nextel and retired president, global strategy and corporate development, Motorola, Inc.; Richard Teerlink '61, retired chairman, Harley-Davidson, Inc.; Wendy Ross '64, assistant managing editor, Washington Post; Gerald Shaheen '66 MA '68, retired group president, Caterpillar Inc.; Charlie Steiner '71, commentator, Los Angeles Dodgers; Dr. Nora Zorich '75, vice president, research and development, director of new drug development, Proctor & Gamble Pharmaceuticals; Stephen Gorman MBA '78, executive vice president, operations, Delta Air Lines; Renée C. Byer '80, winner of the Pulitzer Prize, senior photographer, Sacramento Bee; Kary G. McIlwain '81, president and CEO, Young & Rubicam Chicago; Brad Cohen '96, teacher, motivational speaker, and author of Front of the Class (Best Education Book, 2005, and the basis of a Hallmark Hall of Fame movie); and Tami Lane '96, winner of an Academy Award, prosthetic make-up artist.
## Academic Calendar

### 2008-2009

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<tr>
<th>Semester</th>
<th>Date</th>
<th>Event</th>
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<tbody>
<tr>
<td><strong>First Semester</strong></td>
<td></td>
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<tr>
<td>August 18, Monday</td>
<td>Reporting date for faculty</td>
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<tr>
<td>August 23, Saturday</td>
<td>Residence halls open</td>
<td></td>
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<tr>
<td>August 27, Wednesday</td>
<td>Classes begin</td>
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<tr>
<td>October 11, Saturday</td>
<td>Fall Recess begins</td>
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<tr>
<td>October 15, Wednesday</td>
<td>Classes resume</td>
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<tr>
<td>November 26, Wednesday</td>
<td>Thanksgiving Recess begins</td>
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<tr>
<td>December 1, Monday</td>
<td>Classes resume</td>
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<tr>
<td>December 9, Tuesday</td>
<td>Last day of classes</td>
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<tr>
<td>December 10, Wednesday</td>
<td>Study Day</td>
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<tr>
<td>December 11, Thursday</td>
<td>Final Examinations begin</td>
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<tr>
<td>December 17, Wednesday</td>
<td>Final Examinations end</td>
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<tr>
<td>December 20, Saturday</td>
<td>Commencement</td>
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<tr>
<td><strong>Interim</strong></td>
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<tr>
<td>January 5, Monday</td>
<td>First day of classes. Classes meet Monday – Saturday</td>
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<tr>
<td>January 19, Monday</td>
<td>Final Examinations will be held in the morning only</td>
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<tr>
<td><strong>Second Semester</strong></td>
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<tr>
<td>January 12, Monday</td>
<td>Reporting date for new faculty</td>
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<tr>
<td>January 18, Sunday</td>
<td>Residence halls open</td>
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<tr>
<td>January 21, Wednesday</td>
<td>Classes begin</td>
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<tr>
<td>March 14, Saturday</td>
<td>Spring Recess begins</td>
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<tr>
<td>March 23, Monday</td>
<td>Classes resume</td>
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<tr>
<td>May 5, Tuesday</td>
<td>Last day of classes</td>
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<td>May 6, Wednesday</td>
<td>Study Day</td>
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<tr>
<td>May 7, Thursday</td>
<td>Final Examinations begin</td>
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<tr>
<td>May 13, Wednesday</td>
<td>Final Examinations end</td>
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<tr>
<td>May 16, Saturday</td>
<td>Commencement</td>
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<tr>
<td><strong>Summer Sessions</strong></td>
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<tr>
<td>May 18, Monday</td>
<td>May Interim I begins</td>
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<tr>
<td>(No classes on Memorial Day Holiday)</td>
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<tr>
<td>June 5, Friday</td>
<td>May Interim I ends</td>
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<tr>
<td>June 8, Monday</td>
<td>Summer Session I begins</td>
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<tr>
<td>July 10, Friday</td>
<td>Summer Session I ends</td>
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<tr>
<td>July 13, Monday</td>
<td>Summer Session II begins</td>
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<tr>
<td>August 14, Friday</td>
<td>Summer Session II ends</td>
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### 2009-2010

<table>
<thead>
<tr>
<th>Semester</th>
<th>Date</th>
<th>Event</th>
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<tbody>
<tr>
<td><strong>First Semester</strong></td>
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<tr>
<td>August 17, Monday</td>
<td>Reporting date for faculty</td>
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<tr>
<td>August 22, Saturday</td>
<td>Residence halls open</td>
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<tr>
<td>August 26, Wednesday</td>
<td>Classes begin</td>
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<tr>
<td>October 10, Saturday</td>
<td>Fall Recess begins</td>
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<tr>
<td>October 14, Wednesday</td>
<td>Classes resume</td>
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<tr>
<td>November 25, Wednesday</td>
<td>Thanksgiving Recess begins</td>
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<tr>
<td>November 30, Monday</td>
<td>Classes resume</td>
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<tr>
<td>December 8, Tuesday</td>
<td>Last day of classes</td>
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<td>December 9, Wednesday</td>
<td>Study Day</td>
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<tr>
<td>December 10, Thursday</td>
<td>Final Examinations begin</td>
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<tr>
<td>December 16, Wednesday</td>
<td>Final Examinations end</td>
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<tr>
<td>December 19, Saturday</td>
<td>Commencement</td>
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<tr>
<td><strong>Interim</strong></td>
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<tr>
<td>January 4, Monday</td>
<td>First day of classes. Classes meet Monday – Saturday</td>
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<tr>
<td>January 18, Monday</td>
<td>Final Examinations will be held in the morning only</td>
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<tr>
<td><strong>Second Semester</strong></td>
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<tr>
<td>January 11, Monday</td>
<td>Reporting date for new faculty</td>
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<tr>
<td>January 17, Sunday</td>
<td>Residence halls open</td>
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<tr>
<td>January 20, Wednesday</td>
<td>Classes begin</td>
<td></td>
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<tr>
<td>March 13, Saturday</td>
<td>Spring Recess begins</td>
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<tr>
<td>March 22, Monday</td>
<td>Classes resume</td>
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<tr>
<td>May 4, Tuesday</td>
<td>Last day of classes</td>
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<tr>
<td>May 5, Wednesday</td>
<td>Study Day</td>
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<tr>
<td>May 6, Thursday</td>
<td>Final Examinations begin</td>
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<tr>
<td>May 12, Wednesday</td>
<td>Final Examinations end</td>
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<tr>
<td>May 15, Saturday</td>
<td>Commencement</td>
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<tr>
<td><strong>Summer Sessions</strong></td>
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<tr>
<td>May 17, Monday</td>
<td>May Interim I begins</td>
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<tr>
<td>May 17, Monday</td>
<td>May Interim II begins</td>
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<tr>
<td>(No classes on Memorial Day Holiday)</td>
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<tr>
<td>June 4, Friday</td>
<td>May Interim I ends</td>
<td></td>
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<tr>
<td>June 7, Monday</td>
<td>Summer Session I begins</td>
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<tr>
<td>July 9, Friday</td>
<td>Summer Session I ends</td>
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<tr>
<td>May Interim II ends</td>
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<tr>
<td>July 12, Monday</td>
<td>Summer Session II begins</td>
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</tr>
<tr>
<td>August 13, Friday</td>
<td>Summer Session II ends</td>
<td></td>
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</tbody>
</table>
2010-2011

First Semester
August 16, Monday  Reporting date for faculty
August 25, Wednesday  Classes begin
October 9, Saturday  Fall Recess begins
October 13, Wednesday  Classes resume
November 24, Wednesday  Thanksgiving Recess begins
December 7, Tuesday  Last day of classes
December 8, Wednesday  Study Day
December 9, Thursday  Final Examinations begin
December 15, Wednesday  Final Examinations end
December 18, Saturday  Commencement

January Interim
January 3, Monday  First day of classes. Classes meet Monday - Saturday
January 17, Monday  Final Examinations will be held in the morning only

Second Semester
January 10, Monday  Reporting date for new faculty
January 16, Sunday  Residence halls open
January 19, Wednesday  Classes begin
March 12, Saturday  Spring Recess begins
March 21, Monday  Classes resume
May 3, Tuesday  Last day of classes
May 4, Wednesday  Study Day
May 5, Thursday  Final Examinations begin
May 11, Wednesday  Final Examinations end
May 14, Saturday  Commencement

Summer Sessions
May 16, Monday  May Interim I begins
May 16, Monday  May Interim II begins

(No classes on Memorial Day Holiday)
June 3, Friday  May Interim I ends
June 6, Monday  Summer Session I begins

(No classes on Fourth of July Holiday)
July 8, Friday  Summer Session I ends
July 11, Monday  May Interim II ends
August 12, Friday  Summer Session II begins

2011-2012

First Semester
August 15, Monday  Reporting date for faculty
August 24, Saturday  Classes begin
October 8, Saturday  Fall Recess begins
October 12, Wednesday  Classes resume
November 23, Wednesday  Thanksgiving Recess begins
December 6, Tuesday  Last day of classes
December 7, Wednesday  Study Day
December 8, Thursday  Final Examinations begin
December 14, Wednesday  Final Examinations end
December 17, Saturday  Commencement

January Interim
January 2, Monday  First day of classes
January 16, Monday  Final Examinations will be held in the morning only

Second Semester
January 9, Monday  Reporting date for new faculty
January 15, Sunday  Residence halls open
January 18, Wednesday  Classes begin
March 10, Saturday  Spring Recess begins
March 19, Monday  Classes resume
May 1, Tuesday  Last day of classes
May 2, Wednesday  Study Day
May 3, Thursday  Final Examinations begin
May 9, Wednesday  Final Examinations end
May 12, Saturday  Commencement

Summer Sessions
May 14, Monday  May Interim I begins
May 14, Monday  May Interim II begins

(No classes on Memorial Day Holiday)
June 1, Friday  May Interim I ends
June 4, Monday  Summer Session I begins

(No classes on Fourth of July Holiday)
July 6, Friday  Summer Session I ends
July 9, Monday  Summer Session II begins
August 10, Friday  Summer Session II ends

The academic calendars are subject to revision. Students should refer to the most recent Schedule of Classes for important dates each semester.
Fields of Study

Degrees Offered
B.A.—Bachelor of Arts
B.S.—Bachelor of Science
B.F.A.—Bachelor of Fine Arts
B.M.—Bachelor of Music
B.S.C.—Bachelor of Science in Construction
B.S.C.E.—Bachelor of Science in Civil Engineering
B.S.E.E.—Bachelor of Science in Electrical Engineering
B.S.I.E.—Bachelor of Science in Industrial Engineering
B.S.M.E.—Bachelor of Science in Mechanical Engineering
B.S.M.F.E.—Bachelor of Science in Manufacturing Engineering
B.S.M.F.E.T.—Bachelor of Science in Manufacturing Engineering Technology
B.S.N.—Bachelor of Science in Nursing
D.P.T.—Doctor of Physical Therapy
M.A.—Master of Arts
M.S.—Master of Science
M.B.A.—Master of Business Administration
M.F.A.—Master of Fine Arts
M.L.S.—Master of Liberal Studies
M.S.A.—Master of Science in Accounting
M.S.C.E.—Master of Science in Civil Engineering
M.S.E.E.—Master of Science in Electrical Engineering
M.S.I.E.—Master of Science in Industrial Engineering
M.S.M.E.—Master of Science in Mechanical Engineering
M.S.M.F.E.—Master of Science in Manufacturing Engineering
M.S.N.—Master of Science in Nursing
P.M.A.—Professional Master of Arts

Fields of Study and Degrees Awarded

Graduate School Interdisciplinary Degree
Professional Master of Arts in STEM Education.............P.M.A.
Elementary Math, Science, and Technology Education

Foster College of Business Administration
Accounting.............................................................B.A., B.S., M.S.A.
Actuarial Science – Business.................................B.A., B.S.
Business Management and Administration ............B.A., B.S.
Human Resource Management
Legal Studies in Business
Economics..............................................................B.A., B.S.
Entrepreneurship ...............................................B.A., B.S.
Finance.................................................................B.A., B.S.
International Business ...........................................B.A., B.S.
Management Information Systems ......................B.A., B.S.
Marketing..............................................................B.A., B.S.
Professional Selling ...............................................B.A., B.S.
Business Administration........................................M.B.A.
Finance
Management
Marketing
Executive Master of Business Administration ...........M.B.A.
Quantitative Finance.............................................M.S.

Slane College of Communications and Fine Arts
Art History.............................................................B.A.
Ceramics
Drawing (B.A., B.S., B.F.A. only)
Drawing/Illustration (M.A., M.F.A. only)
Graphic Design (B.A., B.S., B.F.A. only)
Interdisciplinary Studies (M.A., M.F.A. only)
Painting
Photography
Printmaking
Sculpture
Visual Communication and Design (M.A., M.F.A. only)
Art Education (B.A., B.S., B.F.A. only)
Communication ....................................................B.A., B.S.
Advertising
Electronic Media
Journalism
Organizational Communication
Public Relations
Multimedia..........................................................B.A., B.S.
Leadership in Human Service Administration ......................... M.A.
Leadership in Educational Administration ........................... M.A.
Human Development Counseling ........................................... M.A.

International Concentration

Retail Merchandising ........................................................... B.A., B.S.

Physical Therapy .................................................................... B.A., B.S.

Music (Music Business) ....................................................... B.A., B.S.
Music .................................................................................. B.M.

Performance ......................................................................... B.M.
Piano
Organ
Piano Accompanying
Voice
Orchestra/Band Instruments

Music Education ................................................................. B.M.
Instrumental
Piano
Vocal

Composition ......................................................................... B.M.

Theatre Arts .......................................................................... B.A., B.S.

Production

College of Education and Health Sciences

Early Childhood Education .................................................. B.A., B.S.
Elementary Education ......................................................... B.A., B.S.
Secondary Education .......................................................... Certificate
Learning Behavior Specialist I ............................................. B.A., B.S.
Learning Behavior Specialist I—Elementary Education ............ B.A., B.S.

Curriculum and Instruction .................................................. B.A., B.S.
Curriculum and Instruction—Learning Behavior Specialist I ........... M.A.
Leadership in Educational Administration ......................... M.A.
Leadership in Human Service Administration...................... M.A.
Human Development Counseling ......................................... M.A.

General Family and Consumer Sciences ............................. B.A., B.S.

International Concentration
Retail Merchandising ........................................................... B.A., B.S.

International Concentration
Foods, Nutrition, and Dietetics ............................................ B.A., B.S.

International Concentration
Nursing................................................................................... B.S.N.
Nurse Administered Anesthesia .......................................... M.S.N.
Nursing Administration ......................................................... M.S.N.
Health Science ...................................................................... B.S.

Physical Therapy .................................................................... D.P.T.

College of Engineering and Technology

Civil Engineering.................................................................. B.S.C.E., M.S.C.E.
Construction .......................................................................... B.S.C.
Electrical Engineering .......................................................... B.S.E.E., M.S.E.E.

Computer Option .................................................................. B.S.E.E.

Engineering Physics .............................................................. B.S.

Industrial Engineering ......................................................... B.S.I.E., M.S.I.E.
Manufacturing Engineering ................................................. B.S.M.F.E., M.S.M.F.E.

Manufacturing Engineering Technology ................................ B.S.M.F.E.T.

Mechanical Engineering ...................................................... B.S.M.E., M.S.M.E.
Biomedical Engineering ....................................................... B.S.M.E.

Energy .................................................................................. B.S.M.E.

College of Liberal Arts and Sciences

Administration of Criminal Justice ...................................... B.A., B.S.
Actuarial Science – Mathematics ........................................ B.A., B.S.
Biochemistry .......................................................................... B.A., B.S.

Biological Science ................................................................ B.A., B.S., M.S.

Chemistry ............................................................................. B.A., B.S., M.S.

Computer Information Systems .......................................... B.A., B.S., M.S.

Computer Science ............................................................... B.A., B.S., M.S.

Economics ........................................................................... B.A., B.S.

Economics Concentration

English .................................................................................. B.A., B.S.

French ................................................................................... B.A.

German ................................................................................ B.A.

History .................................................................................. B.A., B.S.

International Studies .......................................................... B.A., B.S.

Individualized Major Program ........................................... B.A., B.S.

Liberal Studies ..................................................................... M.L.S.

Mathematics ......................................................................... B.A., B.S.

Medical Technology ........................................................... B.A., B.S.

Political Science .................................................................. B.A., B.S.

Philosophy ........................................................................... B.A., B.S.

Physics .................................................................................. B.A., B.S.

Political Science .................................................................. B.A., B.S.

Psychology ........................................................................... B.A., B.S.

Religious Studies ................................................................. B.A., B.S.

Social Work ......................................................................... B.A., B.S.

Sociology ............................................................................. B.A., B.S.

Spanish ................................................................................ B.A.

Minors

Foster College of Business Administration

Business Administration
Business Studies
Decision Analysis
Management
Management Information Systems
Marketing
Professional Selling

Slane College of Communications and Fine Arts

Art History
Fine Arts
Journalism
Multimedia
Music
Studio Art
Theatre Arts

College of Education and Health Sciences

Family and Consumer Sciences
Health
Leadership Studies

College of Engineering and Technology

Applied Ergonomics
Manufacturing
Quality Engineering

College of Liberal Arts and Sciences

African-American Studies
Asian Studies
Biology
Chemistry
Computer Science and Information Systems
Economics
Accreditation

Bradley University is accredited by the Higher Learning Commission and is a member of the North Central Association of Colleges and Schools: 30 N. LaSalle St., Ste. 2400, Chicago, Illinois, 60602-2504; (312) 263-0456; www.ncahigherlearningcommission.org.

Bradley also has a number of select undergraduate and graduate programs that are accredited by the following:

AACSB International – The Association to Advance Collegiate Schools of Business
American Chemical Society
American Council for Construction Education
American Dietetic Association (didactic program approval)
Association for Childhood Education International
Commission on Accreditation in Physical Therapy Education (CAPTE)
Council for Accreditation of Counseling and Related Educational Programs (CACREP)
Council for Exceptional Children
Council on Accreditation of Nurse Anesthesia Educational Programs
Council on Social Work Education (CSWE)
Educational Leadership Constituent Council
Engineering Accreditation Commission and the Technology Accreditation Commission of the Accreditation Board for Engineering and Technology, 111 Market Place, Suite 1050, Baltimore, MD 21202-4012 - telephone (410) 347-7700.
National Association for the Education of Young Children
National Association of Schools of Art and Design
National Association of Schools of Music
National Association of Schools of Theatre
National Council for Accreditation of Teacher Education
National Council for the Social Studies
National Council of Teachers of Mathematics
National League for Nursing Accrediting Commission (NLNAC)
National Science Teachers Association
Admissions

Freshman Admission
Bradley welcomes applications for admission from all students who feel that they can benefit from and contribute to the varied academic and extracurricular offerings of the University. High school students are encouraged to apply early in their senior year but later applications will be considered as space permits.

Admission Requirements
Admission is based on a review of each student's total academic and extracurricular record. Care is taken to ascertain that students' goals and aspirations are consistent with their academic abilities. In determining an applicant's qualifications, the following criteria are used:
1. The high school record of scholastic achievement and extracurricular and community activity.
2. Results from the SAT, ACT, or TOEFL.
3. Recommendations from appropriate school and community persons.
4. Written personal statement.
5. Judgments made as a result of personal interviews and campus visits.

Entrance Examinations
All candidates for admission to the freshman class (except international students) who have recently completed high school (within the past year) and have not attended another college, are required to take either the SAT or the ACT. The results of one or both of these tests must be forwarded to the Office of Undergraduate Admissions. Results from other examinations such as Advanced Placement (AP) and achievement tests, while not required, can also be helpful in the admission review process.

Student Health Form Requirement
For the benefit and protection of each Bradley student and to comply with state law, it is required that a student health form be filed with Health Services prior to the time the student begins at the University. This form is sent to each admitted student. If a form is not received, a copy may be obtained at Health Services in Heitz Hall or the Admissions Office in the Visitors Center.

All students are required to have a student health form on file at Health Services before registering. To avoid penalties and delays in registration, return the form and then verify through Health Services that it has been received and is complete.

Health Immunization Requirements
Bradley students are required to be immunized against measles, mumps, rubella, tetanus, and diphtheria. Students entering Bradley University for the first time will not be allowed to register unless they provide proof of proper immunization (Public Act 85-1315). Verification of that immunization is a component of the Health Form.

General Admission Requirements
Generally, minimum curriculum requirements for all entering freshmen are as follows: 4 units (years) of English (1/2 or 1 unit of which may be speech), 3 units of college preparatory mathematics, 2 units of laboratory science, and 2 units of social sciences. See listings below for special requirements within the individual colleges and programs. (Applicants deficient in special admission requirements may be admitted but will be required to take preparatory courses in addition to the program described elsewhere in the catalog.)

Business Administration
Required: 2 units of algebra, 1 unit of geometry, 4 units of English (1/2 or 1 unit of which may be speech). Recommended: 2 units of history and/or government.

Students entering the Foster College of Business Administration should have a minimum of two units of algebra and one unit of geometry. Students not meeting these minimums generally must make up the deficiency, at Bradley or elsewhere. Test results will be used to help ascertain the degree of deficiency that exists. High school students are also encouraged to take additional math such as a third unit of algebra, analytic geometry, trigonometry, pre-calculus, and solid geometry. Generally, the more mathematics courses the better.

Engineering
Candidates are urged to take as much mathematics and science as possible. Required: 2 units of algebra, 1 unit of plane geometry, 1/2 unit of trigonometry, 1 unit of physics. Recommended: 1/2 unit of solid geometry, 1 unit of pre-calculus, and 1 unit of chemistry; 1/2 unit of graphics for Industrial Engineering. Applicants deficient in mathematics and science may be admitted. However, it is expected that the deficiency will be removed, preferably during the summer preceding entrance. ACT minimum scores of 24 composite, 24 in math or an SAT minimum combined score of 1100.
Construction and Engineering Technology
Required: 2 units of algebra, 1 unit of plane geometry, $\frac{1}{2}$ unit of trigonometry, 1 unit of physics. Recommended: $\frac{1}{2}$ unit of solid geometry and $\frac{1}{2}$ unit of graphics.

Health Science
In addition to meeting University and College of Education and Health Sciences requirements, admission to the health science major as a freshman requires the following: 1) three units of high school mathematics and science (biology/physiology, chemistry, and physics are recommended); 2) ACT minimum scores of 24 in English, 24 in mathematics, and 24 composite or a SAT minimum combined score of 1100. All test values must be earned on the same examination.

Liberal Arts and Sciences
Recommended: 2 units of a single foreign language.

Music
Required: An audition either in person or on tape. (Contact the chairperson of the Department of Music for an audition appointment.) Recommended: A minimum of four years experience in orchestra, band, choir, and/or chorus or four years of private music instruction.

Nursing
In addition to meeting Bradley University and College of Education and Health Sciences requirements, students seeking admission to the nursing major as a freshman must have three units of high school mathematics and science (biology/physiology, chemistry and physics).

Registered nurses and licensed practical nurses must apply to the program, meet the above requirements, and submit a transcript from an approved school of nursing and evidence of licensure to practice in at least one state. All registered nurses and licensed practical nurses should contact the Department of Nursing for additional information concerning the program.

Notification of Admission and Reply Date
Admission notifications begin October 1 prior to enrollment in the following fall semester. After that date, all notifications will be mailed as soon as the student's application file is complete and reviewed by the Admissions Committee. Applicants for spring, interim, or summer terms will be notified as soon as admission decisions are made.

Applicants respond to offers of admission by forwarding a non-refundable $200 enrollment fee. Applicants requiring on-campus housing must submit an additional $100 housing deposit. Applicants will receive preference for university housing based on the date by which both are received. However, no student seeking notification of admission is required to respond to an offer until May 1. Students admitted after May 1 have two weeks from the date of notification of admission to respond.

Early Admission
Students Pursuing a Degree
Recognizing that the range of scholastic aptitude of high school students is great, Bradley University may accept students into a degree program, providing they have:
1. completed their junior year of high school;
2. attained a “B” or better high school average;
3. attained appropriate SAT or ACT entrance examination scores;
4. forwarded a high school transcript; and
5. forwarded three recommendations from secondary school teachers or guidance counselors endorsing the early admission decision.

Exceptions to this policy will be made only under special circumstances and with the approval of the Office of Undergraduate Admissions and the dean of the college in which the student wishes to enroll.

Students Not Pursuing a Degree
High school students who have completed their sophomore year and are interested in taking classes at Bradley, but not in pursuing a degree, may be admitted at any time as undergraduate students-at-large. Contact Undergraduate Admissions and:
1. complete an application to be an undergraduate student-at-large;
2. forward a high school transcript as evidence of having attained a “B” or better grade point average; and
3. submit three letters of recommendation from secondary school teachers or guidance counselors.

Transfer Admission
Each year, transfer students compose a significant proportion of the new student population at Bradley. The diversity of social and academic backgrounds that transfer students bring adds much to campus life. Accordingly, Bradley actively seeks to enroll transfer students from all areas of the United States and many foreign countries and strives to provide an atmosphere that is both challenging and rewarding.

Applications to transfer to Bradley should be completed no less than 30 days in advance of the start of the semester for which one is applying. It is strongly recommended that transfer students apply several months prior to the beginning of the semester.

Official transcripts of all college work attempted are required prior to admission to Bradley. Official transcripts of credit must be requested by the student and received by the Office of Admissions directly from the institution at which the credit was earned. Transfer students having successfully completed 15 or more semester hours at an accredited institution need not supply a copy of their high school transcript unless requested by the Admissions Office. Students having completed less than 15 semester hours must submit ACT or SAT scores and a high school
transcript. Transfer applicants must have a minimum cumulative grade point average of 2.0 to be considered for admission. Most programs require a 2.5 or above.

Dean's Recommendation Form
New transfer students are also required to submit a Dean's Recommendation Form to be completed by college/university personnel from the most recent institution of attendance verifying continued good standing in conduct and judicial matters.

Level of Transfer Credit
Transfer credit shall be accepted on the same level at which the work was offered at the source institution. Junior-senior level credit will not be granted for courses taken at the freshman-sophomore level.

Acceptance of Transfer Credit
Credit from collegiate institutions which are accredited by one of the regional accrediting associations, such as the North Central Association of Colleges and Schools, will be considered for acceptance at Bradley University. Bradley University also participates in the Illinois Articulation Initiative (see below).

Credit may also be accepted in specific professional courses from certain institutions which are not regionally accredited, but whose curricula are accredited by professional accrediting bodies recognized by the Council on Post Secondary Education. Credits from other institutions, including foreign universities, will be evaluated for possible transfer on a case-by-case basis.

Acceptance of transfer credit will be based on compatibility of the transfer work with the nature, content and level of work offered at Bradley. Application of transfer credit to satisfy specific college graduation requirements shall be determined by the dean of the college in which the student is majoring. In the event that a student changes majors while at Bradley, a new evaluation of the transferred credit will be completed by the department.

Transfer credit which meets the general education requirements at the source institution may be applied to the general education requirements at Bradley.

A maximum of 66 semester hours of credit will be accepted from accredited two-year colleges. Unlimited credit may be accepted from four-year institutions.

Transfer students from colleges and universities offering the baccalaureate degree must successfully complete a minimum of thirty semester hours in residence at Bradley to satisfy degree requirements.

Illinois Articulation Initiative (IAI)
Bradley University has endorsed the Illinois Articulation Initiative (IAI). The purpose of the IAI is to facilitate the transfer of courses among two- and four-year colleges and universities throughout the state of Illinois.

The IAI guarantees students that completion of the General Education Core Curriculum at any participating school will satisfy general education requirements at any other participating school. This initiative is in effect for students who began college during or after summer 1998.

1. Students completing their Associates of Arts or Associates of Sciences degree at a participating IAI school and completing the IAI faculty panel-approved Illinois General Education Core Curriculum will have automatically satisfied their general education requirements at Bradley. This does not include general education courses that are degree requirements.

2. Students completing the IAI Core Curriculum only, without an Associates Degree, will have satisfied their general education requirements at Bradley.

3. Students transferring to Bradley without having completed their IAI Core Curriculum will have to fulfill the Bradley general education requirements.

4. Readmit students must complete Bradley's general education requirements.

5. Illinois Transferable General Education Core Curriculum includes the following:

- 3 courses (9 credits) in Communication
- 1-2 courses (3-6 credits) in Math
- 2 courses (7-8 credits) in Physical and Life Sciences
- 3 courses (9 credits) in Humanities and Fine Arts
- 3 courses (9 credits) in Social and Behavioral Sciences

Official verification of IAI attainment must be sent from the former college, by request of the student, directly to the Office of Undergraduate Admissions.

For more information about IAI, see www.itransfer.org.

Academic Dismissal
Students dismissed for academic or non-academic reasons from their last previous institution attended must wait at least one regular academic semester after their dismissal before applying for admission to Bradley. It is strongly recommended that such students take academic course work elsewhere in the interim to raise their cumulative average to at least a C.

International Students
International students are those who are not citizens or permanent residents of the United States and who intend to enter Bradley University to pursue a full-time course of study.

All applicants whose native language is not English are required to submit the results of the Test of English as a Foreign Language (TOEFL). TOEFL is administered throughout the world at many locations several times a year. Further information can be obtained by consulting the nearest U.S. embassy, consulate, U.S. Information Agency, or by writing directly to the Educational Testing Service (TOEFL), Box 899, Princeton, New Jersey 08540, U.S.A. (A minimum TOEFL score of 550 paper based, 213 computer based, or 79 internet based is recommended for application review.) TOEFL is not required of students attending International or American schools abroad; the Scholastic Aptitude Test
(SAT) or American College Test (ACT) is required in place of TOEFL. Another means of satisfying English proficiency is the ELS Language Centers Intensive English Programs (level 112 required). You can reach ELS at 5761 Buckingham Pkwy., Culver City, CA 90230 USA.

In the United States, educational records are called "transcripts." A "transcript" is an official document issued by an educational institution which states all subjects studied, grades or marks received (including failures), the "credit" received, and the grading scale used (including the lowest passing mark). The length of time in the classroom, the number of classes per week for each subject, and an explanation of the educational system should be included.

All applicants must submit educational records (official transcripts, country examinations, diplomas and certificates) which have been certified by an officer of the educational institution issuing the documents or by a U.S. or local government official. Secondary school records should represent the last four years of study. Any document submitted in a language other than English must be accompanied by an official certified English translation. All U.S. and Canadian documents must come directly from the principal or registrar to Bradley. All university-level records must come to Bradley directly from the institution attended. All university-level study will be evaluated for possible transfer credit. Accurate evaluation cannot be made without a syllabus, catalog, or course descriptions. Consequently, all transfer students must submit their foreign catalog (providing program and course descriptions) in English or in an official English translation. Students of international or American schools abroad should also provide SAT or ACT scores.

A Financial Certification Form must be submitted along with the application to confirm that all college, personal, and travel expenses are covered for each year at the University. Bank statements and/or scholarship award letters are also required for verification.

The transfer application deadline is May 15 for fall semester and October 15 for spring semester. Freshmen applicants are accepted for the fall semester only and are encouraged to complete their applications by March 15.

Former Students
Former students who wish to re-enter Bradley University must request an application for readmission from the Office of Undergraduate Admissions. Those students whose work has been interrupted for one or more semesters are subject to re-evaluation for readmission. They also may be held to any change of requirements that may have occurred during their absence. Students who have accumulated credit elsewhere during their absence are required to submit a transcript of that work. Students who were academically dismissed at Bradley must petition the Academic Review Board for reinstatement.

Credit by Examination
Advanced Placement Credit
Credit may be given in courses covered by the Advanced Placement Examination offered by the College Entrance Examination Board. Minimum scores range from 3 to 5 depending on the subject. If credit is given, the number of semester hours of credit allowed is determined by the extent of the college work covered by this examination.

Specific information on the extent of credit awarded can be obtained from the Undergraduate Admissions Office.

College-Level Examination Program
Bradley University is committed to the principle that college-level achievement should be recognized and rewarded without regard to where, when, or how the knowledge was acquired. The University grants a maximum of 60 semester hours to those who earn scores on the College-Level Examination Program (CLEP) examinations in the 50th percentile or higher on national college sophomore norms. Credit for CLEP may be used to satisfy General Education requirements.

A maximum of 30 semester hours of credit may be earned by taking the General Examinations of the College-Level Examination Program. A maximum of 6 credits may be earned for each of the following subject areas: English Composition with essay, Humanities, Mathematics, Natural Sciences, Social Sciences, and History.

Students may also earn a maximum of 30 semester hours of credit by taking specific Subject Matter Examinations. Subject examinations are available in over 30 areas. The college in which a student is a major determines the applicability of CLEP credit toward degree requirements. For any English subject exam with an optional essay, the essay portion must be written and passed in order to receive credit at Bradley University.

CLEP credit is transfer credit. As with other transfer credit, no CLEP credit will be accepted that duplicates credit already received from other sources. An official copy of the scores must be sent from the CLEP office, by request of the student, directly to the Office of Undergraduate Admissions.

The Bradley University Center for Testing offers CLEP testing by appointment. For additional information contact the Director of the Division of Research and Testing at (309) 677-2424.

Students new to Bradley should discuss CLEP credit with a counselor in Undergraduate Admissions. Current students wishing to transfer CLEP credit to Bradley should discuss CLEP credit with the Registrar’s Office. In all cases, an official copy of test scores must be sent from the CLEP office, by request of the student, directly to Bradley University.

For more information about the College-Level Examination Program, contact CLEP at (609) 771-7865 or visit collegeboard.com/clep.
Special Programs

Campus Visits
Bradley University encourages all prospective new freshman and transfer students and their families to visit campus. Students may attend one of the many campus visit programs or make arrangements for an individual visit. For further information, contact: Undergraduate Admissions, Bradley University, 1501 W. Bradley Ave., Peoria, Illinois, 61625; (309) 677-1000 or (800) 447-6460.
E-mail admissions@bradley.edu or find more information online at admissions.bradley.edu.

Off-Campus Programs
Bradley University conducts many off-campus reception and interview programs throughout the year across the United States. These sessions are designed to allow prospective students and their parents the opportunity to meet with admissions or financial assistance representatives to learn more about the admissions process, degree requirements, campus life, and financial assistance and scholarship opportunities.
To secure a schedule of the off-campus admissions programs or to set up an appointment with an admissions representative, interested students should call the Office of Undergraduate Admissions at (800) 447-6460 or go online to admissions.bradley.edu.

Summer Orientation
A special invitation is extended to all incoming students and their parents to attend Summer Orientation. This program is specifically designed to introduce and familiarize students and parents with Bradley University, its faculty, student body, and special services. The program is required of all incoming freshmen and highly recommended for their parents. Transfer students are also encouraged to attend orientation sessions designed for them.

Credit Courses for Undergraduate Students Not Seeking a Degree
Students who wish to enroll on a part-time basis (less than 12 semester hours) in undergraduate courses, who do not hold a bachelor’s degree, and who do not intend to complete an undergraduate degree, may apply for admission to Bradley as an undergraduate student-at-large.
A current official transcript or letter of good standing is required for all students and should be sent directly from the Registrar's office. Visiting international students on a student visa must provide a copy of their current I-20, a letter, sent directly from their admitting institution, indicating that they are admitted to that school full time, are in good standing, and have permission to take classes at Bradley University. This letter may be sent directly from the admitting institution's Registrar or Designated School Official (DSO) for the Immigration and Naturalization Service.
Undergraduate students-at-large are subject to all University policies and regulations including academic probation and dismissal. If a student's cumulative grade point average falls below 2.0, the student will be placed on probation. A minimum of a 2.25 grade point average will be required in succeeding semesters until the student's cumulative grade point average is increased to 2.0 or higher.
Students who have been denied regular admission to Bradley and students dismissed from the University are not eligible to enroll as undergraduate students-at-large.
A maximum of 45 semester hours taken as an undergraduate student-at-large can be accepted toward a degree program. A student-at-large who decides to seek a degree should apply as a transfer student (see “Transfer Admission” above).
Non-degree-seeking students who already hold a bachelor's degree and who wish to take undergraduate courses on a part-time basis must be admitted through the Graduate School. Students who have completed an undergraduate degree should refer to the Graduate Catalog or contact the Graduate School, 200 Bradley Hall, by phone at (309) 677-2375, by e-mail at bugrad@bradley.edu, or online at bradley.edu/grad. Students who already hold a bachelor's degree and are only interested in pursuing a teaching certificate or students who wish to pursue an additional bachelor's degree should contact the Office of Undergraduate Admissions at (800) 447-6460.
Financial Assistance

College is an investment—a significant one in terms of time and money. College is also an investment in your future. Bradley University, by providing an outstanding private education, is one of the best investments and best values in American higher education today.

When making decisions about college financing, consider not only how much you can afford, but, more importantly, how much you are willing to invest. The quality of the institution must be a top priority as you weigh all of your opportunities. A high-quality education is an investment that will pay dividends for the rest of your life.

At Bradley, you get distinguished, professionally active faculty; modern, complete facilities; comprehensive student services; diversified academic programs; and a valuable diploma backed by the reputation of a distinctive institution. You get more of the time and attention you need and deserve—and have paid for.

The Office of Financial Assistance views its relationship with students and parents as a partnership where we all share in the planning and managing of a Bradley education. We are committed to the belief that each family is unique and we strive to recognize individual needs and situations.

We are committed to giving every qualified student the opportunity to afford the Bradley University experience. We pledge to do our very best to provide the amounts of assistance and programs needed to bring our costs within the reach of every family. Current and complete information concerning prices, sources of assistance, cost management options, policies, and application procedures is available at sfs.bradley.edu.

Cost of Attending Bradley

The total cost of attending Bradley is divided into two categories—direct and indirect costs.

Single Resident Student—Two Semesters

2008-2009 Direct Costs

Tuition .......................................................... $22,600
Room & Meals .............................................. 7,350\(^1\)
Activity & Health Fee .................................... 214

2008-2009 Indirect Costs

In addition to the direct costs itemized above, students should expect to incur additional expenses of approximately $3,000 per year for books and supplies, clothing, laundry, recreation, transportation\(^2\) and other personal expenses. These costs are not paid directly to Bradley.

Applying for Financial Assistance

Financial assistance applicants must complete the following steps to be considered for all sources of state, federal and Bradley sources of assistance. Please pay special attention to the March 1 deadline.

A. Freshman & Transfer Applicants:

1. Apply for admission to Bradley. Students must be accepted for admission before financial aid and scholarship decisions are made.
2. File a Free Application for Federal Student Aid (FAFSA) between January 1 and March 1. (For Bradley-funded assistance, FAFSAs received by the processor after March 1 will be considered late and will be considered only if funds are available.)

B. Continuing Student Applicants:

File a Free Application for Federal Student Aid (FAFSA) between January 1 and March 1. (For Bradley-funded assistance, FAFSA applications received by the processor after March 1 will be considered late and will only be considered if funds are available.)

\(^1\) Double occupancy room. Other options incur different costs.
\(^2\) Students whose permanent residence is outside of Illinois will be given a larger transportation/travel allowance.
The University owns and operates 12 residence halls with a total capacity of 2,140 beds for male and female students. The experience in group living that students who reside in these halls enjoy is a valuable part of their total educational experience.

The University also owns the Student Apartment Complex located behind the Caterpillar Global Communication Center. Each of the 100 units has its own living room, bedroom, bath, and kitchenette and can be rented by two students. For further information concerning costs and availability, contact the Center for Residential Living and Leadership.

Since the University takes no responsibility for personal property, each student should check to see if family insurance covers personal items while in residence on campus. If not, it is recommended that each student consider fire and/or theft insurance as a protection, regardless of living accommodation.

All non-veteran, single freshman and sophomore students shall reside in residence halls provided by Bradley University unless, as a sophomore, they live in a sorority or fraternity house. The following exceptions may be made:
1. Students who are 21 by September 1 of the current school year.
2. Students who desire to live with near relatives. (Near relatives are considered to be a brother or sister not enrolled at Bradley University; grandparents; and uncle or aunt).

Exceptions to these rules will be made by the Center for Residential Living and Leadership.

Juniors and seniors, part-time students, and graduate students may choose to live in the residence halls.

**Residence Halls**

**Application and Housing Deposits**
To reserve a room in a University residence hall, a student must complete the Residence Hall Agreement. Agreement information is made available to students at the time of their admission to the University.

A housing deposit of $100 is required for all students who reside in a residence hall. The deposit will constitute a reserve to cover damage to or loss of University property as long as the student lives in one of the residence halls. When the student leaves the residence hall, deductions for loss or damage will be made at the end of the academic year, and the balance of the deposit will be returned in August. Housing deposits are refundable for incoming new students if requested prior to June 1.

All residence hall agreements are for the full academic year. If a student moves into a residence hall it is understood that he or she agrees to be responsible for room and board payments through the academic year, even if he or she has not filled out or signed a residence hall agreement.

Students will have an opportunity to express their choice of a hall and roommate preference on the residence hall agreement, which will be made available to them at the time of admission.

Students furnish their own linens, pillows, spreads, and blankets for twin-size beds, their own washcloths and towels, waste cans, desk lamps, and small personal items of furniture.

**New Students**
Entering students are urged to file their residence hall applications as soon as possible after they receive notice of their admission to the University. Application is made by the housing agreement, available online through admissions at YourBradley, admissions.bradley.edu/freshman. Those who apply earliest before the semester in which they plan to enroll are more likely to receive the assignment they wish. Applications will not be accepted until after admission is complete.

**St. James Place Apartment Community**
St. James Place is a 15-building residential complex for Bradley University upper-division students (those having completed four semesters of study). The approximately 9.5 acre site is just east of the main campus. The complex provides housing for 550 upper-division students in suite-type facilities. Zoning restricts occupancy by freshmen or sophomores. The apartment community improves housing options for Bradley students, eases student housing pressures in adjacent neighborhoods, and redevelops an important area immediately adjacent to the Bradley campus.

The facilities have brick exteriors. Individual bedrooms each have wire for cable/phone/computer hook-ups. The University also provides Internet access and technology features presently available on campus. The suites each contain a breakfast bar, microwave, dishwasher, and are fully furnished. Laundry services are available in most buildings.
Off-Campus Housing

Private homes in Peoria provide rooms for some of the upperclassmen student population. The Center for Residential Living and Leadership maintains lists of housing, but does not make reservations for the students. The list changes so rapidly that it is impractical to mail it to prospective students. Students seeking private home accommodations should refer to the room list in person. It is also recommended that the student see the accommodations and interview the landlord before renting a room.

The city of Peoria has codes that govern housing in the area. Bradley University expects all students to be knowledgeable about these laws and to abide by them. For information on these requirements contact the Center for Student Involvement in Sisson Hall.

Students living off campus may eat in any residence hall on the same program that residence hall students use. Two meal plans are available.

Married Students

Furnished houses and apartments for families with children are available in the Peoria area. We advise married students to visit Peoria in advance to look at the accommodations before they enter into any lease arrangements.

All correspondence in regard to living accommodations should be addressed to:

Executive Director
Residential Living and Leadership
Bradley University
1501 W. Bradley Ave., Peoria, IL 61625
(309) 677-3221 • housing@bradley.edu
bradley.edu/housing
Student Affairs

The Division of Student Affairs is one of the major administrative units of the University. The philosophy of Student Affairs correlates with the University’s major goals and supporting policies. The programs and activities conducted by the Division of Student Affairs are integral to the mission of the University, address the diversities of the environment in which it resides, and respond to student needs.

The Bradley environment provides opportunities for the deliberate and total development of its students and encompasses experiences beyond the classroom. The Division is concerned with the whole student and believes that what students learn and experience influences their aspirations, development, and achievements.

Therefore, the Division of Student Affairs enhances students’ educational experiences through the mobilization and coordination of resources of the University community in order to develop responsibility within students for growth and development.

The Division complements the academic experience through programming provided by the Centers for Student Involvement, Student Development and Health Services, Student Support Services, and the Smith Career Center. The Division of Student Affairs is also responsible for the Office of Parent Relations.

Center for Student Involvement
- Campus Recreation
- Multicultural Student Services
  - Minority Student Services
  - International Student Services
  - Romeo B. Garrett Cultural Center
- Off-Campus Student and Non-Traditional Student Services
- Parents’ Weekends
- Student Activities
- Student Government
- Student Media
- Student Organizations

This Center provides a cohesive plan of programs, activities, events and services designed to respond to the cultural, social, physical, and recreational needs of all students enrolled at Bradley. Opportunities for leadership and group development are provided for students to learn new skills, broaden their abilities, and manage their organizational activities. Communication between faculty, administration, students, and staff will be encouraged as a means to promote a well-informed campus community regarding student activities and government.

Campus Recreation offers students opportunities to participate in a wide variety of sport and recreational activities. A diversified schedule of activities is maintained for the novice to the advanced competitor.

Multicultural Student Services and the Romeo B. Garrett Cultural Center foster a greater awareness of the minority and international experience by responding to social, cultural, educational, and philosophical concerns.

International Student Services insures the successful transition of international students into campus life and assists them in confronting their responsibilities and challenges while in this country.

Off-Campus and Non-Traditional Student Services helps coordinate efforts designed to meet the special needs of these students.

Student Activities organizes social life, which includes concerts, dances, lectures, and special events such as Campus Carnival, homecoming, and a variety of student committees and programs. The office also registers student organizations and provides information and certain administrative services for more than 200 student groups.

Student government organizations provide leadership opportunities for students to participate in the governing process of the University, particularly as it relates to student concerns and welfare.

Student media, including the weekly newspaper the Bradley Scout, the literary publication Broadside, and the radio station WRBU, offer communication experiences and opportunities for interested students. All student media bearing the name of or sponsored by Bradley University must be approved and supervised by the Communications Council.
Center for Student Development and Health Services
- Academic Exploration Program
- Academic Advisement
- Counseling
- Educational/Career Testing
- Health Services
- Testing and Guidance
- Orientation
- Wellness
- Division of Student Affairs Research

The Center for Student Development and Health Services is designed to provide opportunities and assistance to students for the realization of their personal and educational goals. Beginning with an appropriate introduction to the University environment, students are subsequently provided with advisement; counseling and wellness services; health services; and opportunities to investigate and explore new academic areas and challenges.

The Academic Exploration Program (AEP), one part of the University's academic advisement program, provides direction to a large number of academically undecided students. In addition to individual diagnostic evaluations and course sampling, special advisement services are provided to help students begin understanding the implications of their educational and career interests.

The Academic Exploration Program and other advisement services are offered through the Center for Orientation and Advisement. Orientation programs help new students and their parents adjust to the University and parents adjust to being the parent of a college student. During orientation, academic, career, and personal skills are assessed and enhanced, which ensures a foundation of support that helps students realize their educational goals.

Student Health Services provides personal counseling services to aid in the total development of students as well as to enhance the success of their academic achievement. Services are provided by professional counselors and are confidential and free for Bradley students.

Health Services provides primary care for Bradley students, free of charge. The Center offers care for injuries and short-term illnesses and advises students on medical matters. The physicians may also refer students needing more intensive physical or medical care.

The Center for Testing, as part of Academic Transition Programs and Assessment Services, provides Bradley students with free test-based assistance with the identification of their interests, strengths and personality styles. Analytical information about student perceptions of the University, determined through survey results, are compiled and reported by the Center annually. Businesses, children and adults from the community utilize the Center for personnel and management assessments, intelligence testing and vocational planning.

Center for Residential Living and Leadership
- Lewis J. Burger Center for Student Leadership and Public Service
- Judicial System
- Fraternities and Sororities
- Residence Hall Programs
- Residence Halls and Residence Hall Staff

The Center for Residential Living and Leadership is responsible for the general welfare of the residential hall students and members of fraternities and sororities at Bradley University, particularly as it concerns their outside class activities and living environment. This office interacts with all segments of the University including students, faculty, administrators, parents, and the community. The responsibility of the judicial system is to protect the rights of the University and the individual student. The University student judicial process is administered through the center.

Center for Student Support Services
- Learning Assistance Center
- Tutoring
- Turning Point Program
- Retention Programs
- Office of Student Accessibility - ADA
- Student Affairs Intern Program
- Advancement (Alumni) and Proposal Opportunity
- Technology Oversight

The Center for Student Support Services provides academic support and guidance to assist students in their academic success. The staff offers programs, services, and resources to students who request academic assistance. The goal of the Center for Student Support Services is to help students be academically successful and graduate from Bradley University.

The Office of Student Accessibility-ADA meets with students with physical disabilities to determine reasonable and appropriate accommodations. Students with permanent or temporary physical disabilities must disclose their situation to the Office of Student Accessibility-ADA in order to receive accommodations.

The Center for Learning Assistance assists students with documented learning disabilities. Appropriate testing accommodations are arranged through the Center for Learning Assistance upon verification from their health care provider. Study skills and speed reading seminars are available each semester.

Tutoring services are provided through the Center for Learning Assistance. Students receive two hours of free tutoring each week. Students requesting tutoring services must go to the Cullom-Davis Library to receive tutoring coupons.

Students on academic probation are required to participate in the Turning Point Program. Students learn to develop time management skills, advocacy communication
techniques, and study techniques. Additional retention programs for students with special needs are available through the Center for Student Support Services.

**Smith Career Center**
The Smith Career Center assists students in exploring and defining career options, developing job search strategies, obtaining career-related work experience, and identifying and connecting with prospective employers. Innovative services respond to current trends and economic conditions affecting the job market and career opportunities. These include:
- individual career advisement
- job search preparation
- resume development and review
- cooperative education and internships
- career seminars
- job fairs
- graduate and professional school fair
- campus interviews with employers
- one-credit course in job search strategies

Extensive Web-based resources are available to help students learn more about career information, job availability, employer information, networking, and campus recruiting sign-ups.

Bradley University students and alumni must register with the Smith Career Center to obtain an eRecruiting Web account. Having an eRecruiting account allows registered users to submit resumes for the Web Resume Book, review Web job listings, and participate in campus interviews. Registration is restricted to currently enrolled Bradley University students or alumni.

Students are encouraged to gain a competitive advantage by participating in career-related work experiences prior to graduation. Through internships, cooperative education, and summer or part-time employment, the Marjorie and Bill Springer Center for Excellence in Internships provides students with opportunities for professional development that integrate classroom theory with supervised work experience.

Over 400 employers visit the Bradley campus each year to consider Bradley candidates for internship, cooperative education, summer, part-time and full-time jobs. Students have the opportunity to meet employers during special presentations, job fairs, and on-campus interviews.
Bradley University encourages a way of life which is sound and fundamental to our society. Finally, the program subscribes to all the NCAA Principles for the Conduct of Intercollegiate Athletics.

The Bradley Intercollegiate Athletics program recognizes and appreciates the importance of the intellectual, physical, and mental well-being of its student-athletes. The institution monitors the academic progress of its student-athletes, through a policy which is consistent with the University's mission, to provide maximum educational opportunities for the entire student body. Also, in addition to the training programs and professional medical services available to all student-athletes, other counseling services may be provided.

The recruitment of student-athletes who have the potential to earn our undergraduate degree is practice at the University. While certain sports may reflect a strong minority presence, the Department of Athletics encourages all coaches to continue a commitment to identify and recruit minority students. In this regard, the Department of Athletics administration, with assistance from the Office of Admissions, will work to provide coaches with information that will help identify prospective student-athletes.

The Department of Athletics supports the University's objective of creating a community enriched by men and women of diverse backgrounds. It does so by efforts to attract and retain a staff where women and minorities are well represented. In addition, the Bradley Intercollegiate Athletics program offers equitable opportunities for participation and provides support for students without regard to gender, race, national and/or ethnic origin, religion, sexual orientation, or disability.

The Department of Athletics administration will periodically assess its policies, procedures, programs, and activities to ensure the continued fulfillment of its mission.

Conference-approved sports on the Bradley program for men are baseball, basketball, cross country, golf, soccer, and tennis. Women's sports consist of basketball, cross country, golf, indoor track, outdoor track, softball, tennis, and volleyball.

Student Activities

Campus Recreation

Campus Recreation provides a variety of programs to meet the recreational needs of all students. The Markin Family Student Recreation Center, opening in October 2008, is a multi-use indoor facility. Open over 100 hours each week, the center provides opportunities for intramural events, sports and fitness classes, and unscheduled, informal activity. The intramural sports calendar includes 25 different events. Another aspect of Campus Recreation is the program of sports and fitness classes. These non-credit, instructional courses focus on fitness and learning skills in sports, which have lifelong application.

Outdoor recreational opportunities exist at the David Markin Tennis Courts and the Meinen Field outdoor recreation complex, which houses 2 1/2 basketball courts and a multi-sport field where soccer, softball, flag football, and a variety of other activities occur.

Club Sports

Club sports in ice hockey, in-line hockey, martial arts, men's soccer, men's volleyball, table tennis, ultimate Frisbee, women's soccer, women's softball, and women's volleyball provide further intercollegiate competition.

Intercollegiate Athletics

Bradley University is a member of the National Collegiate Athletic Association and the Missouri Valley Conference.

The mission of Bradley University includes the pursuit of excellence in providing distinctive educational programs and the support environment that fulfill the intellectual, aesthetic, and professional needs of its students and other members of the University community. The mission of the Intercollegiate Athletic Program is to support the University as a whole by providing opportunities for its student-athletes and other members of the University community through programs which are consistent with the purposes and policy of NCAA Division I intercollegiate athletics.

The University supports the NCAA Principle of Amateurism and Student Participation: "An amateur student-athlete is one who engages in a particular sport for the educational, physical, mental and social benefits derived therefrom and to whom participation in that sport is an avocation." Therefore, as the University trains students in sportsmanship, which aids in the development of character and respect for others, Bradley encourages a way of life which is sound and fundamental to our society. Finally, the program subscribes to all the NCAA Principles for the Conduct of Intercollegiate Athletics.

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Conference-approved sports on the Bradley program for men are baseball, basketball, cross country, golf, soccer, and tennis. Women's sports consist of basketball, cross country, golf, indoor track, outdoor track, softball, tennis, and volleyball.
Religious Life

Although Mrs. Bradley, in founding the University, stipulated that it should remain nonsectarian, she did provide in the charter for the development of “the principles of morality and right living as exemplified in the life and teachings of Jesus Christ.” With this nonsectarian background, the University is making an increasingly vigorous effort to provide for its students a program conducive to the development of character, morality, and high principles. This program is carried on through student religious organizations on campus and numerous courses in religion.

If a student should have to miss class due to a religious holiday, the student must notify the instructor at least one week prior to that class.

Student Activities Office

The Student Activities Office maintains a master calendar of events, coordinates reservations for campus grounds and the Michel Student Center foyer, and approves fundraising requests. For a complete list of recognized student organizations, please visit bradley.edu/sao.

Registered Student Organizations

The following student organizations were registered for the 2007-2008 school year.

Academic/Honorary

Accounting Club
Alpha Kappa Delta (Sociology)
Alpha Pi Mu (Industrial Engineering)
Alpha Psi Omega (Drama Society)
American Advertising Federation (AAF)
American Foundry Society
American Institute of Graphic Arts (AIGA)
American Institute of Physics
American Marketing Association
American Society for Quality
American Society of Civil Engineers
American Society of Manufacturing Engineers
American Society of Mechanical Engineers
American Society of Metals/TMS
Associated General Contractors
Association for the Education of Young Children
Association of Information Technology Professionals (AITP)
Beta Alpha Psi (Accounting)
Beta Tau Epsilon (Manufacturing)
Biology Undergrad Society of Bradley University (BUGS)
Bradley Investment Organization
Bradley MBA Association
Bradley Media Society
Bradley Nursing Student Association (BNSA)
Bradley Student Council for Exceptional Children
Bradley Student Dietetic Association
Bradley Student Education Association
Bradley University Social Service (BUSS)

Chemistry Club
Chi Epsilon (Civil Engineering)
Chi Sigma Iota, Beta Phi Chapter
Collegiate Entrepreneurship Organization
Engineers Without Borders
Gamma Iota Sigma (Actuarial Science)
Health Science Organization
Illinois Valley Mechanical Contractors Association of America
Institute of Electrical & Electronics Engineers (IEEE)
Institute of Industrial Engineers (IIE)
Kappa Omicron Nu (Home Economics)
Mathematics Association of America (MAA)
Mortar Board (National Senior Honor Society)
National Society of Black Engineers (NSBE)
Omicron Delta Kappa
Phi Alpha (Social Work)
Phi Alpha Theta (History)
Phi Chi Theta (Business & Economics)
Phi Kappa Phi Honor Society
Phi Mu Alpha Sinfonia
Phi Sigma Iota (Foreign Language)
Pi Gamma Mu (Junior/Senior Social Science Honorary)
Pi Lambda Theta (Education)
Psi Chi (Psychology)
Public Relations Student Society of America (PRSSA)
Sigma Alpha Iota
Sigma Iota Delta
Sigma Lambda Chi (Construction)
Sigma Tau Delta (English)
Sigma Theta Delta (Nursing)
Society for Advancement of Management (SAM)
Society for Human Resource Management
Society of Automotive Engineers (SAE)
Society of Physics Students
Society of Professional Journalists
Society of Women Engineers (SWE)
Sociology Club
Sports Marketing Club
Tau Beta Pi
Tri Beta (Biology)
Women in Business

Communications/Publications

Bradley Scout
Bradley University Speech Team
Broadside Art and Literary Magazine
Communications Council
The Edge (Student Radio)

Cultural/Ethnic

Association of Latin American Students
Black Student Alliance
Chinese Language Club
French Club
Hindu Youth Society
Indian Students Association (ISABU)
International Student Advisory Council (ISAC)
Multicultural Student Advisory Committee
Muslim Student Association
National Association for the Advancement of Colored People (NAACP)
Organization of Arab Students
Venezuelan Student Organization

**Dance**
Bravette Dance Team
Dance Team
Hipnotiq Hip Hop Squad
Orchesis
Swingers

**Fraternity/Sorority**
Alpha Chi Omega Sorority
Alpha Epsilon Pi Fraternity
Alpha Kappa Alpha Sorority, Inc.
Alpha Phi Alpha Fraternity
Chi Omega Sorority
Delta Sigma Theta Sorority, Inc.
Delta Tau Delta Fraternity
Delta Upsilon Fraternity
Gamma Phi Beta Sorority
Interfraternity Council (IFC)
Junior Panhellenic Council
Kappa Delta Sorority
Lambda Chi Alpha Fraternity
National Pan-Hellenic Council
Order of Omega (Greek Honor Society)
Panhellenic Council
Phi Beta Sigma Fraternity, Inc.
Phi Gamma Delta Fraternity
Phi Kappa Tau Fraternity
Pi Beta Phi Sorority
Pi Kappa Alpha Fraternity
Pi Kappa Phi Fraternity
Rho Lambda
Sigma Alpha Epsilon Fraternity
Sigma Chi Fraternity
Sigma Delta Tau Sorority
Sigma Gamma Rho Sorority, Inc.
Sigma Kappa Sorority
Sigma Nu Fraternity
Sigma Phi Epsilon
Sigma Theta Epsilon Christian Fraternity
Theta Chi Fraternity
Theta Xi Fraternity
Zeta Phi Beta Sorority, Inc.

**General Interest**
Activities Council of Bradley University (ACBU)
Amateur Radio Club
American Sign Language Club
Anti-Alias
Because We Care (BWC)
Body Works
Bradley Ambassadors
Bradley Anime Club
Bradley H.E.A.T.
Bradley Tech Crew
buFusion.net
Campus Awareness for Rape Education (CARE)
CenPro Marketing and Publicity Team
College Show
Combat-Oriented Bradley Robotics Alliance (COBRA)
Common Ground
Fashion Merchandising
Fish Philosophy Facilitators
HARAMBEE
Hospitality Association
International Affairs organization (IAO)
LINCS (Leadership Instilling Knowledge through Cooperative Service)
Linux Users Group
Mock Trial
Music Video Gaming Club
Musicians in Business
Peace Network
Photographic Society
PreLaw Club
Pro-Life Club
Psi Phi (Science Fiction Club)
SONOR
Spectrum Art Club
STAR’s - Student Admissions
Student Activities Budget Review Committee (SABRC)
Student Aides
Student Environmental Action Coalition (SEAC)
Student Green Electronics Campaign
Study Abroad Veteran’s Association
Vegetarian Society

**Government/Political**
Amnesty International
Association of Residence Halls (ARH)
Bradley Arbitration Board
Campus Greens
College Democrats
College Republicans
Geisert Hall Council
Harper/Wyckoff Hall Council
Heitz Hall Council
Student Senate
Students for Barack Obama
Students for a Sensible Drug & Alcohol Policy
University Hall Council
Williams Hall Council

Performing Arts
Barbeque Kitten Improv Troupe
Bradley Chamber Orchestra
Bradley Chorale
Bradley Community Chorus
Bradley University Bands
BU Gospel Choir
Ministry of Experimental Theatre
United States Theatre Technology (USITT), Std. Chapter
V-Day (The Vagina Monologues)

Religious
Bridges International
CRU
Campus Outreach
Chi Alpha Christian Fellowship
Chosen Generation
Elogeme Adolphi Christian Sorority
Fellowship of Catholic University Students
Greek Movement
Hillel
InterVarsity Christian Fellowship
Kappa Phi Club
Muslim Student Association
St. Joseph Center
Strength College Ministry
Students Pursuing Truth
United Christian Foundation
worship@full.volume
Young Life Leadership

Service
Alpha Phi Omega
American Red Cross Club of BU
Best Buddies
Bradley Fellows
C.H.O.I.C.E.S. Outreach
Circle K Club
Colleges Against Cancer
Dance Marathon
Epsilon Sigma Alpha
Habitat for Humanity
Meals on Wheels, Etc.
PUSH America Club
Rotaract
Tyng in Touch Program
Volunteer Network

Sports/Leisure
AMP—Attain and Maintain Programming
Badminton Club
Bradley Cheerleaders
Bradley Chess Club
Bradley Hockey Club
Bradley Men's Club Soccer
Bradley Table Tennis Club
Bradley Ultimate Frisbee Fanatics
Bradley University Bowling League
Bradley University Color Guard
Bradley University Men's Club Volleyball
Bradley Women's Club Softball (Fastpitch)
Cycling Club
Equestrian Club
Fencing Club
Gymnastics Club
Inline Hockey Club
Karatedo Doshinkan
Lacrosse Club
Medieval College Society
Nerf Commandos
Outdoors Adventure Club
Paintball Nation
Rock Climbing Club
Running Club
Skydiving Club
Sportsman's Club
STUD (Skate Til You Drop)
Women's Club Soccer
Women's Club Volleyball
Bradley University provides a comfortable setting designed for living and learning. A beautiful 85-acre campus contains both historic buildings and state-of-the-art learning centers. Surrounded by an historic residential district, the campus has restaurants, shops, and a supermarket within walking distance.

Bradley continuously updates facilities to keep pace with new methods of teaching and learning. In recent years complete renovations have taken place in Olin Hall (science), Constance Hall (music), and Bradley Hall. In Fall 2008, the new state-of-the art Markin Family Student Recreation Center will open, offering a swimming pool, exercise facilities, and practice space for intramural sports. It will serve as the social hub for student life on campus, house the Wellness Program, Counseling Services, the Health Center, and labs to support the Department of Nursing. A 600-space parking deck will also open this fall. Work has begun on the new Athletic Performance Center and the Puterbaugh Men’s Basketball Practice Facility. The APC will be home court for women’s basketball and volleyball and provide a spacious venue for concerts and other performances. Bradley recently launched a major capital campaign that will bring more renovations and new facilities to campus.

St. James Place, a student residential community, provides suite-style living for upperclass students and outdoor intramural facilities—Meinen Field. In addition to these playing fields, the university has lighted tennis courts on campus. A food court in Williams Hall offers a variety of dining options for all students seven days a week until 8 p.m.

Center for Academic Transition Programs and Assessment Services
For students who are unsure about what major or career would be best for them, the Center for Academic Transition Programs and Assessment Services can provide valuable information to help with their decision-making. Tests and inventories, specially selected for individual needs, can match primary interests and abilities as well as personality and learning styles. Each student receives a personalized interpretation of their test results regarding compatible majors and careers. Informational materials are provided to assist with educational and career planning.

Bradley University Bookstore
The Bradley Bookstore provides the books and supplies necessary for coursework at the university. A large selection of emblematic clothing and gifts, as well as medical, reference, and general reading books, are available at the bookstore. Any book not carried in stock can be special ordered. All students, faculty, and staff with a valid school ID may purchase academically priced software online at campusstore.com. For your convenience, greeting cards, snacks, and soda are also stocked at the bookstore.

Personal checks written for up to $30 can be cashed for a small fee. Discover, Visa, MasterCard, or American Express cards or Quick Cash are accepted at the Bradley Bookstore. Barnes & Noble gift cards are also accepted and available for purchase to be used at any Barnes & Noble college bookstore or superstore.

Computing Services
Computing Services supports both the academic and administrative aspects of university computing. Computing Services supports campus-wide computer networks, connections to the Internet, and electronic mail. Bradley is a member of Internet2, which provides high-speed network access to more than 300 research-oriented universities, laboratories, and companies. In addition, Internet2 participation provides high-speed access to all major research networks in the United States, as well as access to the major international research networks.

Academic resources include a variety of computer systems and software used for instruction, research, and public service. Student workstations are located in the Cullom-Davis Library and many academic buildings. All residence hall rooms and St. James suites have network connections giving access to the campus network as well as the Internet. Students are encouraged to bring their own workstations with them to campus. There is no charge to access the campus data network or the Internet. HelpDesk services are available in the Reserves area of the Library.

Student e-mail accounts
E-mail and network access accounts are automatically established for every student at Bradley University. You will receive your account and password when you arrive on campus. Bradley uses e-mail as an official means of communication with students, so you should check your account on a regular basis.
Romeo B. Garrett Cultural Center
Located at 824 North Duryea Place (across from Williams Hall), the Garrett Center houses the office of Multicultural Student Services. Multicultural Student Services functions to meet the various needs of international students and students of color. The Center serves as a meeting place for students and community groups as well as a place for social and cultural events. It also has a fully-equipped computer lab and small multicultural library. Named in honor of the late professor emeritus of sociology, Dr. Romeo B. Garrett, the Center is open every day during the regular academic year.

Haussler Hall
Haussler Hall is the main recreational facility for students, faculty, and staff at Bradley University. Contained in the building are several workout areas including a weight training room with Cybex equipment and free weights; a cardiovascular room with treadmills, life cycles, stair machines, and ellipticals; racquetball courts; and three basketball courts for recreational purposes. Also there are men’s and women’s locker rooms where equipment can be checked out and lockers rented.

A new 130,000-square-foot student recreation center will open in Fall 2008. The Markin Family Student Recreation will include four basketball courts for intramural and recreational games, a championship basketball court, a 1/8-mile running/walking track, climbing wall, juice bar, indoor pool, weight room, exercise rooms, and other amenities.

Center for Student Health Services
Student Health Services is an outpatient clinic that provides service to enrolled Bradley students who experience health problems. Students are assisted through advisement, treatment, consultations with health providers, and referral for extended treatment if necessary. While there is no charge for most on-site treatment, services provided through referral to outside agencies are charged by that care provider and are the student’s financial responsibility.

The Center’s qualified staff of physicians, psychiatrist, counselors, and nurses is located in modern treatment offices in Heitz Hall. They provide a point-of-entry for all university students to receive health care both at the Center and in the Peoria community.

Professional counselors and supportive staff are trained to work with Bradley students in their growth and total development—social, emotional, intellectual, physical, spiritual, and occupational—as well as the environment in which they live.

Personal growth and development issues of adjustment to college, relationship concerns, alcohol and substance abuse, anxiety and stress management, communication skills, eating disorders, assertiveness, and lifestyle choices are some of the issues addressed by the counselors. Visits are confidential and free for Bradley students.

The Center is open during the school year 8:00 a.m.-11:30 a.m. and 1:00-4:30 p.m., Monday-Friday. The Center is open limited hours during breaks and regular summer school sessions. Students are seen on an appointment basis. At times when the Health Center is closed, patients are referred to the after hours number, 677-3200, which connects to OSF St. Francis Phone Nurses Triage.

In addition to regular medical services, Health Services also offers special men’s and women’s clinics during the regular academic year.

All students are required to have a student health form on file at Health Services before registering. To avoid penalties and delays in registering, return the completed health form and then verify through Health Services that it has been received and is complete.

Immunization Requirement: To comply with Illinois State law, all students registering for classes for the first time in a four-year college must show proof of proper immunization or titer showing immunity to measles, mumps, rubella, tetanus, and diphtheria.

Instructional Technology and Media Services (ITMS)
Instructional Technology and Media Services provides a diverse range of instructional media and production services in support of the academic and administrative needs of faculty, students, and staff. Primary services include: the Instructional Technology Assistance Center (ITAC); Blackboard course management system; technology training; AV equipment and staff assistance; Internet2/IP videoconferencing; digital graphic, photographic, video, and copy production services; and a variety of general media services.

Instructional Technology Assistance Center (ITAC)
Located within Instructional Technology and Media Services, ITAC provides instructional technology training and assistance to faculty, staff, and students as they apply technology to teaching and learning. Services available include application training, instructional design, production seminars, use of mediated facilities, and multimedia support. ITAC also administers and assists faculty in the creation of Web-enhanced supplemental and asynchronous course sites using Blackboard software.

Center for Learning Assistance
The Center for Learning Assistance provides learning enhancement services to help students achieve their academic goals. Services available include peer tutoring, study skills, contract study tables, and assistance for student athletes.

The Center for Learning Assistance can assist those students with documented learning disabilities by providing “select coordinated accommodations” as defined by standardized national service-delivery models. This includes the provision of a contact person, generic support services, testing accommodations, peer tutors, and student referral service for off-campus testing resources. These services are
available only during the academic year. To be eligible for accommodations the student must provide current documentation of the learning disability (testing data from within the last three years) and possess strong self-advocacy skills. The following courses are offered through the Center:

**AEP 110 Speed Reading Seminar**
For students who have normal college reading levels but wish to increase speed and comprehension. Develops a flexible rate, adaptable to any reading material.

**AEP 115 Study Skills Seminar**
Develops reading and study skills demanded in college classes. Develops flexibility in reading rate; improves critical reading techniques, skimming and scanning, and study skills such as textbook reading, notetaking, time management, and test taking.

**Turning Point Program**
The Turning Point Program is an academic support service program offered through the Center for Learning Assistance. Enrollment in this program is required for and limited to all undergraduate students on academic probation for the first time. When final semester grades are processed, students are notified in writing about being automatically enrolled in The Turning Point Program.

**Cullom-Davis Library**
The Bradley University Library primarily serves the needs of the University’s students and faculty. Its collection encompasses more than 1,304,000 items—Including approximately 518,000 books, periodicals, and government documents, 788,000 microforms, and a variety of audiovisual resources, manuscripts, and archival materials. Major microform collections include the Educational Resources Information Center (ERIC) documents, Library of American Civilization, and Library of English Literature. The Library is a depository for both U.S. and Illinois government documents.

The Library’s resources and services are housed in the Cullom-Davis Library, which was renovated and enlarged to 107,000 square feet (nearly double its previous size) in 1990. The facility provides seating for 1,000 students.

Among the facilities is the Virginius H. Chase Special Collections Center, established in 1979 in honor of a Peorian who became a widely recognized authority on the botany and natural history of Illinois; it houses and exhibits rare books, manuscripts, archival materials, and other resources that require special management, including the collections of the Peoria Historical Society and the Citizens to Preserve Jubilee College.

About 13,800 music scores, 10,000 recordings, and selected music reference materials are in the Music Resource Collection, which is located on the third floor.

As a participant in OCLC, a computerized bibliographic network, the Library and its clientele have ready access to millions of resources in over 6,000 libraries across the country and abroad. The Library also provides access to a wide variety of electronic journal indexes and abstracts and to many full text databases at no charge to Bradley students and faculty. Through the University’s participation in the Alliance Library System, students and faculty may borrow materials from most other Peoria-area libraries. The Library is a member of CARLI (Consortia of Academic Research Libraries in Illinois), which provides an online catalog and circulation system that incorporates Bradley’s holdings and those of most of the other academic libraries in Illinois.

**Safety and Security**
Bradley University makes every attempt to provide a safe and secure campus.

The primary function of the University Police Department is to protect life and property within the University community. Its officers are commissioned by the State of Illinois, have full law enforcement powers on and off University property, and are graduates of the Police Training Institute. University Police are on duty 24 hours a day, 365 days a year; conduct foot, bike, and vehicular patrols of the campus and residence halls; and make crime prevention presentations to student groups. University Police also coordinate patrol and call responses with City of Peoria and Peoria County law enforcement agencies.

For the safety of anyone walking alone at night on campus or in the immediate neighborhood, Bradley police escorts can be requested from dusk until dawn for an area generally bounding local neighborhoods. This opportunity replaces the previous "student escort service" and may be modified after the first semester trial period.

Numerous clearly marked emergency telephones are located strategically on campus. All ring directly into a police dispatcher and automatically display the location of the caller so that help can be dispatched.

All residence halls have limited access, with some halls having all outside doors locked on a 24-hour basis and others having main doors unlocked during daytime hours. The residence hall lobby offices are staffed during the afternoon and evening and residence hall student security staff make rounds during the night.

Security-related concerns and campus crime information are reported to the campus community through the Scout student newspaper, the University’s Web site, AUDIX campus-wide voice mail, and other media. The University has also instituted a campus mass notification system using text messaging if circumstances warrant such. For more information, see bradley.edu/police.

Students may borrow from the University Police Department engraving equipment to mark valuables such as electronic equipment and bicycles. Literature on safety and security is also available.

A safe campus can be achieved only with the cooperation of the entire University community—students, faculty,
Robert H. Michel Student Center
The Student Center symbolizes the philosophy that makes this truly a “campus community center.” The Center is the focus of many campus activities. The wide variety of facilities and varied programs make a significant contribution to campus life outside the classroom.

Facilities include: a ballroom, OutTakes convenience store, meeting rooms, pool table, television, browsing lounges, dining center, and Café Bradley featuring Blimpie’s, Sunset Strips, Starbucks, and smoothies. In addition, meeting rooms with food service can accommodate 10 to 100 people, and the ballroom can accommodate up to 500 people for a banquet, dance, reception, or lecture.

Summer Orientation
A special invitation is extended to all incoming students and their parents to attend Summer Orientation. This program is specifically designed to introduce and familiarize students and parents with Bradley University, its faculty, student body, and special services. The program is required for all incoming freshmen and highly recommended for their parents.

Multiple sessions of the 2½-day program are offered during June and July. A fee is charged to parents who attend, which can include on-campus housing and meals. Advance reservations are required; information will be available in May to all students who have made a tuition deposit.

Telecommunications
The Telecommunications Office operates a telephone switch and voice mail system for the campus. Technical staff support telephone equipment and information outlets in offices, residence hall rooms, and many public areas. Information outlets supply voice, data, and video services through connections to Internet2, AT&T, and other carriers’ local and long distance networks. Persons calling campus phones may call direct by dialing (309) 677- or (309) 495- and a phone’s four-digit extension.

WCBU FM 89.9
Operated by Bradley University, WCBU is the member-supported public radio service and National Public Radio (NPR) affiliate for central Illinois. WCBU’s mission is to provide excellence in music and news programming with a local emphasis, while at the same time providing valuable professional experience for Bradley students.

WCBU provides a full 24-hour schedule of NPR news and information, local news, and classical music on WCBU 89.9 as well as WCBU2, a digital HD Radio service. Additional information and online streaming of both the main and digital channels can be found at the station web site, wcbufm.org.
Fees and Expenses

The University may make appropriate changes in fees and expenses beginning in fall 2008. Quoted fees below are actual rates for 2008-2009. All checks and money orders should be made payable to Bradley University.

**Tuition**

Full-time students will be charged $11,300 per semester. This includes, subject to University rules and regulations, class instruction for 12 to 16 semester hours inclusive (the number of hours permitted each semester depending on the scholastic record). Students enrolling in 1 to 7 hours are charged $615 per semester hour. For students enrolling in 7½ to 11½ hours, the per hour fee is $740. Course loads in excess of 16 hours result in fees of $11,300 plus $570 per each hour over 16.

All courses taken in the College of Engineering and Technology are assessed a tuition surcharge of $5 per credit hour.

Senior citizens are assessed tuition at the rate of $25 per credit hour. Enrollment is subject to availability of classroom space.

**Room and Board**

Per semester, room and board for students living in University residence halls will be as follows:

- Double Room + Meal Plan = $3,675
- Single Room + Meal Plan = $4,415

**Fees**

- **Non-credit Co-op Registration**: Contingent upon participation.
- **Applied Music Fee**: $160 for full-time; $260 per hour for part-time.
- **Chemistry Breakage Ticket**: $10.
- **Transcript Fee**: $4 per copy.
- **Class Fees**: For certain classes there are small fees to cover the expense of art supplies and similar items.
- **Activity Fee**: $35 per semester for undergraduate students taking 9 hours or more (nonrefundable).
- **Health Fee**: $72 per semester for students taking 7 hours or more (nonrefundable).
- **Application Fee**: The first time a student applies for admission with the intention of earning credit, the application must be accompanied by a $35 nonrefundable fee. The fee must be received before the application will be processed. For students submitting their application using Bradley’s online form, the $35 application fee will be waived.
- **Enrollment Fee**: A $150 nonrefundable enrollment fee is required of all students who are admitted as degree program students. For those students who wish to live in a residence hall, payment of this deposit is required before a housing agreement form is issued to the student.
- **Housing Reservation**: To reserve a room in a university residence hall, a student must complete the official residence hall agreement provided by the Office of Admissions.
- **Housing Deposit Damage Fee**: This $100 deposit will constitute a reserve to cover damage to or loss of university property during such time that the student is residing in a university residence hall. When the student leaves the residence hall, deductions will be made for balances owed to the University. Housing deposits are refundable for incoming new students if requested in writing prior to June 1.
- **Vehicle Registration Fee**: The fee for vehicle registration is $50 per year and is not refundable. All students parking on campus are to register their vehicles with the Controller’s Office. Freshman students may use, operate, or possess motor vehicles but are not to park them on campus unless exempted as a commuter who lives at home, or through special request directed to the Director of University Parking who may grant permission on the basis of an exceptional need.
- **Deferred Payment Plan (DPP)**

The University offers a Deferred Payment Plan which allows the student to pay at least 25% of the total amount due at registration. The remaining unpaid balance is payable in approximately three equal installments beginning one month after registration. A deferment charge of 4% will be added to unpaid installments.

A late fee of $25 is assessed for each payment not received by the date stipulated on the deferred payment agreement.
Monthly Installment Payment Plan (MIPP)
This interest-free plan is available to all full-time undergraduate students and allows for monthly payments of annualized tuition, and room and board charges. The amount of each payment depends on individual circumstances, but generally the payment will be one-twelfth of the amount deferred (total charges minus scholarships, loans and/or down payment).

Payments for the Monthly Installment Payment Plan are made monthly from June 1 through May 1. You may enroll in the program at any time prior to August 1 by including in your initial payment all monthly payments due from June until enrollment date. An annual $135 non-refundable enrollment fee is required for each participant and a $25 fee per month is charged for late payments. The Monthly Installment Payment Plan conveniently divides your financial obligation to Bradley into easily affordable monthly segments and allows you to more effectively plan the financing of your education.

For further information on either of the above payment plans, contact:
Student Finance Manager
Controller’s Office
Bradley University
1501 W. Bradley Ave.
Peoria, Illinois 61625
(309) 677-3120

Check Cashing Privilege
All enrolled students may cash one personal check per day upon presentation of a BU Quick Card at a Swords Hall cashiers window. Checks may not exceed $150 per day. Second party checks will not be accepted unless the second party is the student’s parents.

A $25 charge will be assessed on all checks returned by the bank. In addition, check cashing privileges will be subject to suspension if three checks are returned during any twelve-month period.

Refunds
Partial Drops—Reduction of class hours but remaining in school
Full refund will be made for individual classes dropped by the end of the second week of classes. No refund is made for classes dropped after the end of the second week of classes.

Questions or appeals regarding refunds/charges should be directed to:
Student Finance Manager
Controller's Office
Bradley University
1501 W. Bradley Ave.
Peoria, Illinois 61625
(309) 677-3120

Complete Official Withdrawal
When a student withdraws from all classes, after completing registration, but before the official beginning day of University classes, a full refund less a registration fee of $50 will be made for first semester freshmen and part-time students. All other full-time students will be charged a registration fee of $100. When a student completes an Official Withdrawal from the University on or after the beginning day of University classes, tuition and room will be charged as follows:

Tuition and Room:

Tuition
Withdrawal during 1st week  10%
Withdrawal during 2nd week 15%
Withdrawal during 3rd week 20%
Withdrawal during 4th week 25%
Withdrawal during 5th week 35%
Withdrawal during 6th week 40%
Withdrawal during 7th week 45%
Withdrawal during 8th week 50%
Withdrawal during 9th week 60%
Withdrawal after 9th week 100%

Room and Board
Room Charged on a prorated basis for each day.
Board Charged on meal plan money used and overhead.

No refunds will be made after the ninth week of classes. The date that the drop slip is processed is the date used for this computation.
Registration
Registration is an official part of the academic year. By registering, the student subscribes to the terms and conditions, financial and otherwise, which have been set forth by the University. A correct registration is the responsibility of the individual student. Payment of tuition and fees must be made by the deadlines published by the Controller’s Office.

Late registrations may be processed by the student during the first full week of classes. After the first full week of classes, additions may be made only by special permission. The student must obtain the Late Add Request Form and approval signature of the advisor, instructor, and dean of the college of the student’s major field. Late registrations are usually not approved after the second week of classes.

Schedule Changes After Registration
Once a student has registered for even a single class section, changes to that schedule (additions and deletions) may be made by using Webster, the Web registration system, at http://webster.bradley.edu. Instructions are outlined in the Schedule of Classes at bradley.edu/classes. Students may cancel their registrations in any classes up to the end of the second full week of classes. These registrations will not be a part of the permanent record. During the third full week through the twelfth full week of classes all courses dropped will be recorded on the permanent record with the indication of “W” (Withdrawn) and the date.

After the twelfth full week of classes, the dean of the college in the student’s major field may, in case of extreme hardship, authorize a student to withdraw from one or more, or all, courses. This action will be recorded on the student’s permanent record with the grade of “W” together with the withdrawal date.

After the first full week of classes, classes may be added only with special permission. The student must obtain a Late Add Request Form and approval signature from the academic advisor, obtain approval from the instructor and chair of the department offering the class, and then obtain an approval signature from the dean of the college in which the course is offered. Classes are not added to a student’s program and no registration is permitted after the second full week of class instruction.

A student who drops a course after the second full week of classes may, with permission of the instructor, continue to attend that class for the remainder of the semester. This privilege will not be permitted in laboratory, military, or studio courses.

Procedures for withdrawing from the University are given in the current Schedule of Classes at bradley.edu/classes.

Students should consult the most current edition of the Schedule of Classes at bradley.edu/classes for details concerning procedures, dates, and refund policies.

Undergraduate Leave of Absence Policy
The leave of absence opportunity is available for undergraduate students who must leave Bradley University for a period of time not to exceed 12 consecutive months. A leave of absence may be granted for various reasons, such as personal, medical, or financial. The leave of absence must be approved in advance of the semester in which the leave of absence is to begin and can not be granted to a student who is on probation or dismissed from the University. For the complete policy, consult the Registrar’s Office or the dean of your college.

Credit Taken in Residence at Bradley
Student Course Load
Twelve semester hours is the minimum load for a full-time student during spring or fall semesters. The regular load is prescribed by the college in which the student is enrolled. A student must petition to enroll in excess hours (more than 18 1/2 hours in a regular semester). The authority to approve petitions for excess hours shall be vested in the dean of the college in which the student is registered.

Summer and interim sessions are shorter terms with the following maximum course loads: January Interim students can earn up to four semester hours in classes that meet for approximately two weeks. In May Interim I, a three-week term, students can earn up to four semester hours; in May Interim II, an eight-week term, students can earn up to seven semester hours. Summer Session I, beginning in June, and Summer Session II, beginning in July, are four-week programs in which students can earn up to seven semester hours of credit in each term.

One credit hour is usually assigned to a class that meets 50 minutes a week over a period of a semester. In laboratory, fieldwork, or similar type of instruction, one credit hour is assigned for a session that meets two or three hours a week for a semester.
An Undergraduate Student-at-Large (non-degree-seeking) may not take 12 or more semester hours during either fall or spring semesters except without approval. A maximum of 45 semester hours taken as an Undergraduate Student-at-Large can be accepted toward a degree program. Students who are uncertain about their interest in pursuing a degree are strongly encouraged to apply for admission to a degree program rather than enroll as an Undergraduate Student-at-Large.

All courses taken for credit for which a student is registered at Bradley or elsewhere are counted as part of the total semester hour load the student is permitted to carry.

Student Class Standing
- **Freshman**: fewer than 24 semester hours of credit.
- **Sophomore**: at least 24 but fewer than 56 semester hours of credit.
- **Junior**: at least 56 but fewer than 90 semester hours of credit.
- **Senior**: 90 or more semester hours of credit.

Change of Student Status (Full-Time or Part-Time)
Ordinarily, the classification of full-time students will not be changed after the second week of classes even though the course load drops below 12 semester hours. In cases where this rule creates undue hardship, the dean of the college involved, upon the student's request, may suspend this rule.

Prerequisites
Students should understand that listed prerequisites may be met through equivalent courses. Please consult your academic advisor if you have a question about prerequisites.

Students who enroll in courses for which they do not meet the prescribed prerequisites may be required to withdraw from the courses.

Course Numbering System
The following course numbering system is used as a guide for students in selecting courses: courses numbered 100-199 are planned primarily for freshmen. Courses numbered 200-299 are intended primarily for sophomores. Courses numbered 300-499 are designed primarily for juniors and seniors. Courses numbered 500-599 are open only to seniors, graduate students and specially qualified juniors. Courses numbered 600-699 are reserved for graduate students only.

Please consult the all-University, college, and departmental requirements for the number of semester hours needed at specific course levels.

Repeated Courses
The University Senate has designated some courses as repeatable up to a specified number of credit hours. For all other courses, the following policy applies. A student at Bradley may not receive credit for the same course twice. However, a student is permitted to repeat courses within one year after completion; thereafter permission to repeat a course must be obtained from the dean of the college in which the student is registered. The last grade and credits earned for each course shall be the only ones used in computing the grade point calculations and in satisfying graduation requirements. However, the entry on the permanent record for both enrollments remain. (Proficiency exams cannot be used for repeating courses because credit earned in this manner is not used in grade point calculations.)

If a student registers again for a course which is already a part of the scholastic record and the number of the course has changed since the original enrollment, permission to substitute a course must be obtained from the dean of the college which offered the course being repeated.

Auditing Courses
All Bradley students (undergraduate, graduate, full-time and part-time) in good academic standing registered for a given academic term, along with individuals admitted “at large,” for a given academic term may request permission to enroll as an “auditor.” Permission to audit a course must be approved by both the instructor and the chairperson of the department offering the course. Enrollment is contingent on having available space in the class. Except in special circumstances to be determined by the instructor and department chairperson, courses involving laboratory or studio work cannot be audited. Only regular students and auditors listed on the official class roster are allowed to attend class.

Forms for audit registration are available in the Registrar’s Office or online. Audit registrations are accepted by the Registrar’s Office only after the first day of classes of each academic term.

The extent to which an auditor participates in a course and the requirements for satisfactory performance must be specified by the instructor when approval is granted. Instructors are not obligated to grade any course work performed by the auditor. Courses taken for audit do not earn academic credit, do not apply toward any academic degree and do not count toward a student’s full-time or part-time load for purposes of financial aid, loan deferments or visa status. Courses taken for audit are recorded on the student’s permanent academic record as completed satisfactorily (“X”), completed unsatisfactorily (“UX”), or withdrawn (“W”).

After the last day for adding classes with special permission, anyone who is registered as an auditor may not change the audit registration to a “for credit” status, i.e. a regular registration; likewise, a student registered for credit may not change to audit status. Deadlines associated with courses taken for credit and courses taken for audit are identical.

All individuals will be charged a non-refundable fee for audited courses. The current fee is published in the Schedule of Classes. Persons who have audited a course may petition to

1Credits from other institutions including foreign universities will be evaluated for possible transfer on a case-by-case basis.
earn credit by proficiency examination; however, the charge for a proficiency examination for credit is based on the standard tuition structure determined by the Controller’s Office with a credit granted for charges associated with auditing.

Non-Resident Credit
Transfer Credit From Collegiate Institutions
Credits from collegiate institutions that are accredited by one of the regional accrediting associations such as the North Central Association of Colleges and Secondary Schools will be considered for acceptance at Bradley University. Official transcripts of credit must be requested by the student and received by Bradley directly from the institution at which the credit was earned. Application of transfer credits to satisfy general education requirements shall be determined by the Associate Dean of the College of Liberal Arts and Sciences. Acceptance will be based on comparability of the transfer work with the nature, content and level of work offered at Bradley. Bradley University will not accept for credit the transfer of physical activity courses. Application of transfer credits to satisfy specific college graduation requirements shall be determined by the dean of the college in which the student is majoring. In the event that a student changes majors while at Bradley, a new evaluation of credit will be made. Courses with grades of “D” from a particular institution will be considered for transfer only if the student’s cumulative grade average at that institution is at least 2.0 out of 4.0 at the time of transfer. The grade average for subsequent evaluations will be calculated only on the work not yet recorded on the Bradley permanent scholastic record. Once work with D grades has been evaluated and denied, it will not be evaluated again with work taken at a later time. (In some majors, D credit for transfer work does not count to fulfill specific requirements in that major.) Grades earned in transferable credits are posted on the student’s permanent record solely for the purpose of advisement and evaluation by the department chair and dean of the college in which the student is enrolled. A maximum of 66 semester hours of credit will be accepted from two-year colleges. If other institutions are using a quarter hour system, those hours will be converted to semester hours.

Senior who take work at another institution to complete degree requirements at Bradley must file proof of registration for that work in the form of a letter from the Registrar of that institution. This letter must be received in the Bradley Registrar’s Office by the end of the third full week of classes. The work must be completed by the time of Bradley’s Commencement. The diploma will be awarded after receipt by the Bradley Registrar’s Office of an official transcript of credits from the other institution.

Level of Transfer Credit
Transfer credit shall be accepted on the same level on which the work was offered at the source institution. For example, courses taught at the source institution on the freshman level will be accepted for credit on the freshman level at Bradley. No junior-senior credit will be given for work taken at a two-year college.

Credit by Correspondence and Extension
Students wishing to take correspondence or extension courses for transfer purposes must have the prior written approval of their dean. A total of thirty semester hours through extension and correspondence, with a maximum nine semester hours of correspondence, will be permitted to count toward graduation, except in the College of Engineering and Technology. In the College of Engineering and Technology, a maximum of ten semester hours of credit taken by correspondence and extension may be counted toward graduation.

Examination for Advanced Placement
Credit may be given in courses covered by Advanced Placement Examinations offered by the College Board if the score received is three or higher. The number of semester hours of credit allowed is determined by the extent of the college work covered by this examination, as recommended by the department offering the work at Bradley. Inquiries should be directed to the Admissions Office.

College-Level Examination Program (CLEP)
Bradley University accepts up to 60 semester hours of credit for those who earn scores on CLEP general and
subject exams in the 50th percentile or higher. Some of these hours may be used to satisfy general education requirements.

CLEP credit is transfer credit. Students wishing to transfer CLEP hours to Bradley may do so by directing the CLEP office to forward official score results to Undergraduate Admissions at Bradley University. Because CLEP credit is transfer credit, it cannot duplicate credit already earned from another source.

CLEP credit may be applied in the following ways to satisfy general education requirements:

- General Examinations. The five general exams are offered on these subjects: College Mathematics, English Composition with Essay, the Humanities, Natural Sciences, Social Sciences and History. Each test provides 6 semester hours of credit.
- Subject Examinations. Bradley accepts CLEP credit for 24 subject exams.

Not all CLEP exams are approved for credit at Bradley. If you have questions about how CLEP credit applies to Bradley, please consult the following:
- Your advisor, if you are currently enrolled at Bradley.
- Undergraduate Admissions, if you are a student new to Bradley.

For more information about testing sites or other details, contact CLEP at (609) 771-7865 or www.collegeboard.com/clep.

Credit by Proficiency Examination

Credit by proficiency examination is classified as non-residence credit. Upon presentation of acceptable evidence of competence, students enrolled in the University may apply for permission to attempt to earn credit by examination in certain undergraduate subjects. Applications for such examinations will be submitted to the chairperson of the department that offers the course, who will, if the application is approved, arrange for the administration of the examination.

Students receiving approval to attempt to earn credit by examination will pay a non-refundable fee of $50.00 for the examination for each course number listed in the catalog. This fee must be paid before the examination is taken.

Students who have had no previous college experience, and who have been admitted as full-time students, may apply for permission to attempt credit by examination in certain undergraduate subjects. Such examination will be taken prior to the student's second registration. Credit, but no grade, will be recorded for examinations passed.

Grades for examinations taken after the student's second registration will be entered on the permanent record. Students shall have the option of requesting either a letter grade or a grade of Pass/Fail. A grade of "C" or better will be considered a passing grade for both options. A grade of "D" is not acceptable for a proficiency examination. The option selected must be agreed upon by the student and the department offering the course at the time of applica-

Departmental Prerequisite Examinations (Not for Credit)

At the discretion of the department offering the course, regularly enrolled students of the University may be allowed to take a special examination in any course offered by the department in order to satisfy prerequisites for subsequent courses. Before a student will be permitted to take a prerequisite examination, a $50.00 fee for each course number listed in the catalog must be paid to the Controller's Office.

A prerequisite examination carries no University credit and no grade. Upon successful completion of a prerequisite examination an appropriate entry will be made on the permanent record of the student.

All-University Degree Requirements

Responsibility for Meeting Degree Requirements

A minimum of 124 semester hours is required for all baccalaureate degrees. The curricula of certain departments require as many as 150-155 semester hours.

Students who maintain continuous enrollment and who complete work toward the baccalaureate degree within five years from the date of entry may graduate under either the catalog in effect at the time of entrance or under the catalog in effect at the time of graduation. A change in major could mean meeting new requirements in force at the time of the change as a condition for acceptance into that major. Students whose work has been interrupted for one or more semesters may be held to requirements in effect at the time of their re-enrollment.

Residence Requirements

Only work registered through Bradley University during the two regular semesters or the interim and summer sessions is considered as residence work. No proficiency examinations, correspondence, extension courses, or credit earned through the College-Level Examination Program may be counted as residence work.

All candidates for the bachelor's degree must meet the following residence requirements:

1. A minimum of 30 semester hours earned in residence is required of all students.
2. 24 of the last 30 semester hours must be earned in residence.
Junior-Senior Credits

Candidates for a bachelor’s degree must present a minimum of 40 semester hours in junior and senior courses (those numbered 300 and above). Check your college requirements for proper distribution of these courses.

General Education Requirements

Candidates for all baccalaureate degrees must complete requirements in general education. Students should consult the most current Schedule of Classes for the list of courses which are approved by the University Senate to fill these requirements.

The general education requirements are based upon the principle of “liberal education.” The fundamental assumptions about liberal education include:

- A liberal education provides all students with the intellectual tools necessary to explore the best that civilization has produced.
- A liberal education provides the means for all students to exercise control over their lives through thoughtful responses to their political, social, cultural, technological, and natural environment.
- A liberal education emphasizes critical, historical, theoretical, scientific, and aesthetic approaches to knowledge.
- A liberal education enhances the quality of life and fosters an appreciation of learning as a foundation for continuing inquiry.
- The purpose of a liberal education is to develop students, regardless of academic major or professional aspiration, who are able to understand and participate in society as responsible human beings.

The requirements for degrees from all colleges are:

**English Composition (C1 and C2)**

6 semester hours including English 101 (C1) and a 3-hour, 300-level advanced writing course (C2)

C1  ENG 101 English Composition or  
CIV 111 and 112 Unified Composition and Western Civilization I and II  
(Completion of both CIV 111 and CIV 112 will satisfy C1 and WC general education requirements. No general education credit will be given if only one course is completed.)

C2  choose from 
ENG 300 Exposition  
ENG 301 Argumentative Writing  
ENG 304 Research in Individual Disciplines  
ENG 305 Technical Writing  
ENG 306 Business Communication

**Speech (SP)**

3 semester hours  
COM 103 The Oral Communication Process

**Mathematics (MA)**

3 semester hours chosen from  
MTH 101 Basic College Mathematics  
MTH 111 Elementary Statistics  
MTH 115 Brief Calculus with Applications I  
MTH 116 Brief Calculus with Applications II  
MTH 119 Calculus with Review B  
MTH 121 Calculus I  
MTH 122 Calculus II  
MTH 223 Calculus III  
IMT 212 Technical Calculus I  
IMT 214 Technical Calculus II  
IMT 216 Technical Calculus III

**Western Civilization (WC)**

3 semester hours  
CIV 100 Western Civilization  
CIV 101 Western Civilization to 1600  
CIV 102 Western Civilization Since 1600  
CIV 111 and 112 Unified Composition and Western Civilization I and II  
(Completion of both CIV 111 and CIV 112 will satisfy C1 and WC general education requirements. No general education credit will be given if only one course is completed.)  

**Non-Western Civilization (NW)**

(Education majors: Some courses are not acceptable by ISBE for teaching certification. See your advisor.)  
3 semester hours chosen from  
ENG 130 Intro. to Native American Literatures  
ENG 381 Literatures of Asia  
FLS 342 Survey of Hispanic-American Literature I  
FLS 343 Survey of Hispanic-American Literature II  
HIS 103 Non-Western Civilization: Russian History  
HIS 104 Non-Western Civilization: The Middle East Since Muhammad  
HIS 105 Non-Western Civilization: Latin America  
HIS 107 Non-Western Civilization: Modern Japan 1860-Present  
HIS 314 Non-Western Civilization: Japan and World War II  
HIS 335 Modern Mexico  
HIS 336 Early Non-Western History  
HIS 337 Modern Non-Western History  
HIS 338 Russia Since 1917  
IB 204 Business in Chinese Culture  
IB 208 Business in Mexican Culture  
IS 182 Fundamentals of Contemporary Asian Civilization  
IS 260 Fundamentals of Contemporary Islamic Civilization  
IS 285 East Asia in the Modern World  
IS 340 Africa in the International System  
IS 355 Imperial Russia  
RLS 121 Islamic Civilization  
RLS 331 Religions of the Eastern World  
RLS 336 Buddhism and Asian Civilizations  
RLS 338 China: Religion and Culture

1ENG 130 may be used to satisfy either the NW or CD requirement, but not both concurrently.
RLS 340 Japan: Religion and Culture
SOC 300 Cross-Cultural Perspectives on Gender
SOC 301 Peoples and Cultures of the Non-Western World
SOC 311 Comparative Family Systems (of non-Western cultures)
SOC 314 Native Americans

Fine Arts (FA)
(Education majors: Some courses are not acceptable by ISBE for teaching certification. See your advisor.)
3 semester hours chosen from
ART 107 Introduction to 2-Dimensional Creative Processes
ART 108 Introduction to 3-Dimensional Creative Processes
ART 131 Art Appreciation
CFA 421 Art and the Creative Imagination
MUS 109 Music Appreciation
PHL 350 Art in Human Experience
THE 131 Introduction to the Theatre
THE 141 Film Appreciation

Human Values (HL or HP)
(Majors in the College of Liberal Arts and Sciences must take 6 semester hours: 3 hours HL and 3 hours HP)
3 semester hours chosen from

Human Values - Literary (HL)
ENG 115 Introduction to Literature
ENG 123 European Writers
ENG 124 American Writers
ENG 127 British Writers
ENG 129 African American Literature
ENG 190 Women in Literature
ENG 385 Literatures of Europe
FLF 325 Introduction to French Literature
FLG 325 Introduction to German Literature
FLS 325 Introduction to Literature (Hispanic)
FLS 340 Spanish Literature I
FLS 341 Spanish Literature II

Human Values - Philosophical (HP)
IS 250 Theory and Practice of World Affairs
PHL 103 An Inquiry into Values
PHL 307 Classical Political Philosophy
PHL 308 Modern Political Philosophy
PHL 347 Ethics
PLS 207 Introduction to Political Thought
PLS 307 Classical Political Philosophy
PLS 308 Modern Political Philosophy
RLS 101 Comparative Religion
RLS 200 Contemporary Religion in the United States
RLS 300 Hebrew Bible/Old Testament
RLS 302 New Testament
RLS 332 Religions of the World
SOC 321 Individuality and Society
SOC 420 Critical Theory

Cultural Diversity and Social Forces (CD & SF)
6 semester hours, including at least one SF course, chosen from

Cultural Diversity (CD)
COM 315 Intercultural Communication Theory
COM 386 Media, Race, and Gender
ENG 130 Intro. to Native American Literatures
ETE 280 Exploring Diversity: Learners, Families, and Communities
PSY 300 Psychology of Women
SOC 302 Sociology of Diversity
SOC 313 Race, Ethnicity, and Power
SOC 314 Native Americans
SOC 315 Gender and Society
WMS 200 Introduction to Women's Studies

Social Forces (SF)
ECO 100 Introduction to Economics
ECO 221 Principles of Microeconomics
ECO 222 Principles of Macroeconomics
ETE 115 Schools and Schooling in American Society
FCS 300 Consumer Issues in America
FIN 220 Personal Finance
HIS 311 History of American Political Economy
HIS 312 U.S. Foreign Policy
HIS 326 Modern Military Forces and Institutions
HIS 340 Contemporary Europe
HIS 385 Science, Technology, and Society
IS 100 Contemporary World Forces
IS 275 Problems of the Developing World
IS 306 Intelligence in International Affairs
IS 312 U.S. Foreign Policy
PLS 105 Introduction to American Government
PLS 205 Introduction to Comparative Politics
PLS 208 Fundamentals of International Relations
PLS 360 Judicial Politics
PSY 104 Principles of Psychology: Social Forces and Individual Behavior
RLS 320 Muslim-Christian Relations
RLS 321 Islam and the West: Clash of Civilizations?
SOC 100 The Sociological Perspective
SOC 312 Social Inequality
SOC 313 Race, Ethnicity, and Power
SOC 315 Gender and Society
SOC 325 Science, Technology, and Modernity
SOC 326 Sociology of Globalization
WMS 200 Introduction to Women's Studies

Science and Technology (FS and TS)
6 semester hours, including at least 3 semester hours of FS, chosen from Fundamental Concepts in Science (FS)

Fundamental Concepts in Science (FS)
BIO 121 Life Science I
BIO 122 Life Science II
BIO 125 Life Science I (lab)
BIO 126 Life Science II (lab)

1ENG 130 may be used to satisfy either the NW or CD requirement, but not both concurrently.
BIO 202 Microbiology and Immunology
CHM 100 Fundamentals of General Chemistry
CHM 101 Fundamentals of General Chemistry Lab
CHM 110 General Chemistry I
CHM 111 General Chemistry Lab
CHM 112 Engineering Chemistry
CHM 151 Fundamentals of Organic Chemistry
CHM 152 Fundamentals of Biochemistry
GES 101 Principles of Earth Science
GES 110 Principles of Historical Geology
GES 111 Principles of Historical Geology Laboratory
PHY 100 Fundamental Physics Concepts
PHY 107 General Physics I
PHY 108 General Physics II
PHY 110 University Physics I
PHY 123 Physical Science, Basis for a Technical Society
PHY 201 University Physics II
PHY 202 Applied Quantum Physics
SCI 101 Topics in Investigative Science for Educators

Science and Technology in the Contemporary World (TS)
AST 300 Astronomy: Our Glimpse of the Cosmos
BIO 300 Population, Resources and Environment
BIO 301 Biotechnology and Society
CHM 300 Chemistry and Civilization
CIS 300 Computers and Society
FCS 301 Nutrition Today
GES 300 Oceanography: The Human Perspective
IME 300 The World of Metals

Transfer students who have earned only 5 semester hours of English Composition, Social Forces, or Science and Technology and 2 semester hours of Basic Speech, Western Civilization, Non-Western Civilization, Human Values, or Fine Arts are considered to have satisfied the all-University course requirements in these subjects.

Bradley University participates in the Illinois Articulation Initiative (IAI).

Grade point Average for Graduation
A minimum cumulative grade point average of 2.00 based upon hours taken at Bradley is required for graduation.

Requirements for the B.A. Degree
All candidates for the Bachelor of Arts degree must present credit for two years of college-level foreign language or its equivalent. This requirement may be met by the completion of a 202 or 300-level course or by transfer of similar credits from another institution or by a proficiency examination. Students with four units of high school language must successfully complete a 202 or 300-level course or satisfy this requirement by a proficiency examination in order to receive the Bachelor of Arts degree.

Students who have taken a foreign language in high school and wish to continue studies in the same language will be required to take a placement examination to assure placement at the proper college level.

Requirements for the B.S. Degree
In order to receive the Bachelor of Science degree, students must successfully complete at least 6 hours of courses selected from physical and natural science, mathematics, computer science, statistics, or quantitative methods in addition to the hours used to fulfill the University general education requirements. The following courses may be used to fulfill the additional 6-hour requirement for the B.S. degree—all courses in astronomy, biology, chemistry, computer science, geological sciences, physics, mathematics (except MTH 109), technical mathematics, and, in addition, these courses: BMA 372, ECO 319, FCS 303, PSY 415, PSY 536, QM 262, QM 263, and SCI 101.

Majors, Concentrations, and Minors

Major
A major is a coherent, structured course of study, defined by departments and selected by students as their principal subject area.

Generally, the major is comprised of courses offered and required by the department, but it may also include designated courses from other departments offering related subjects. All students must fulfill the requirements for at least one major in order to graduate.

In addition to courses used to satisfy the general education requirements, students must successfully complete a minimum of 24 semester hours of courses designated by the department as acceptable toward the major.

The major must include no fewer than 12 semester hours at the 300 (junior) level or above.

Students must achieve a minimum grade point average in courses in the major of no less than 2.0 in order to graduate.

Multiple majors must include at least 18 semester hours of courses not used in satisfaction of requirements for any other major.

Concentration
The concentration must be a coherent, structured course of study. It is comprised of no fewer than 12 semester hours of the minimum 24 semester hours required for the major. No fewer than 6 semester hours must be in courses at the 300 level or above. To qualify for more than one concentration within one major, no fewer than nine semester hours must be in different courses in each concentration.

Minor
The minor must be coherent, structured course of study. A minor is comprised of no fewer than 15 semester hours, a majority of which are at the 200 (sophomore) level or above with no fewer than 6 semester hours at the 300 (junior) level or above.

Students must achieve a minimum grade point average of 2.0 in courses in the minor for official designation as a minor.
Declaration of Minor
Students declaring a minor must report to the advisor in their major field to notify that advisor of their intent to seek a minor. After obtaining the signature of the advisor in their major field, the form is presented to the advisor for the intended minor for that advisor's approval. The student then presents the form to the dean of the college of the intended minor who forwards this form to the Registrar for official entry to the student's permanent scholastic record.

Requirements
Requirements for majors and for minors are specified in the catalog under each curriculum offering them. Students may graduate with a single major or a number of majors and minors when the requirements of each, including all college and department requirements, are met at the time of graduation.

Students may, with the approval of the dean of the college offering the work, complete additional majors or minors after graduation and have the completion and date noted on the permanent scholastic record.

Requirements for Two Baccalaureate Degrees
Students seeking two baccalaureate degrees from Bradley University may qualify for both degrees by meeting the specific requirements for each and presenting residence hours totaling thirty beyond the degree demanding the larger number of semester hours. The degrees may be earned consecutively or concurrently.

Grades
Grades in individual courses should reflect achievement in the subject matter in accordance with the standards of the course. Instructors shall inform students of standards for the course, the basis for judgment in grading, and the weight of each criterion in the assessment of the final grade. The standards of grading shall remain constant throughout the semester.

Students have the right to know where they stand in each course at periodic intervals throughout the semester. Any work submitted for evaluation should be assessed and returned promptly.

Incomplete
"IN" is the symbol used when the instructor lacks sufficient evidence to award a letter grade. The purpose of an "IN" is to provide the time necessary for a student to complete course work which, through no fault of the student's, was not completed in the normal time allowed. Reasonable time necessary for completion is decided by the student and the faculty member teaching the course. The "IN", once assigned, remains on the official academic record upon conversion to a grade or permanent "I".

The "IN" should not be mistakenly considered as an incentive for the faculty to recommend or for students to believe that this extension permits students merely to retake courses, or to extend the time for the completion of the prescribed work beyond the end of the semester of enrollment, as the means of removing the "Incomplete."

For undergraduates, at the time the "IN" is assigned, the instructor must file with his or her director or department chair a copy of the contract specifying what must be done to complete the "IN" and the date by which the "IN" must be converted. For undergraduates, an "IN" must be converted not later than four weeks before the end of the next regular semester in which the student is enrolled or the Registrar will record a permanent "I". If the instructor does not submit a letter grade by the specified deadline, the "I" will remain permanently upon the student's record and may not thereafter be removed. Under unusual circumstances, the student may be granted an extension to the end of the semester with the approval of the instructor involved, provided that the request was received prior to the normal deadline for the removal of Incompletes.

Grade point System
The grading system of the University for undergraduate students is based on the following:

<table>
<thead>
<tr>
<th>Marks</th>
<th>Honor points per semester hour</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>High competence</td>
</tr>
<tr>
<td>B</td>
<td>Competence</td>
</tr>
<tr>
<td>C</td>
<td>Minimum competence</td>
</tr>
<tr>
<td>D</td>
<td>Limited or incomplete competence</td>
</tr>
<tr>
<td>F</td>
<td>Inadequate competence for credit</td>
</tr>
<tr>
<td>IN</td>
<td>Instructor lacks sufficient evidence to award a letter grade</td>
</tr>
<tr>
<td>IP</td>
<td>Work in progress. Graduate level and certain approved undergraduate courses. Research work (theses, reading courses, special research problems) carried over more than one semester</td>
</tr>
<tr>
<td>I</td>
<td>Permanent Incomplete</td>
</tr>
<tr>
<td>P</td>
<td>Pass – certain courses approved for Pass/Fail.</td>
</tr>
<tr>
<td>S</td>
<td>Satisfactory</td>
</tr>
<tr>
<td>U</td>
<td>Unsatisfactory</td>
</tr>
<tr>
<td>W</td>
<td>Official withdrawal</td>
</tr>
<tr>
<td>X</td>
<td>Audit</td>
</tr>
<tr>
<td>UX</td>
<td>Unsatisfactory audit</td>
</tr>
</tbody>
</table>

Grade point average is determined by dividing honor points by semester hours. Only work registered through Bradley University is used in calculation of grade point averages. Courses which are taken for audit are assigned no grade nor honor points and are not entered on the student's permanent record. P, IN, IP, and W's are not considered in calculating the grade point average. For repeated courses, the last grade and credits earned shall be the only ones used in the calculation of grade point averages. Credit earned by proficiency examination is not used in the calculation of grade point averages.
Mid-Term Grades
A report of mid-term grades is prepared for all undergraduate students shortly after the midpoint of the fall and spring semesters. All students have electronic access to their mid-term grades.

Mid-term grades are provided only to give students an indication of their progress and are not officially recorded on permanent records.

Final Grades
Final grades will be issued for each class in which a student is officially registered. A report of these final grades will be posted on Webster, the online information system, by the Office of the Registrar within a very short time following the close of the semester. All challenges to final grades must be made in the next regular semester after the grade was awarded. All completed grade change request forms must be submitted to the dean of the college in which the course is offered no later than four weeks before the end of the next regular semester.

Academic Ombudsman
The Academic Ombudsman, a faculty member to whom students may bring complaints about teaching, operates under the following conditions. The Ombudsman will have a purely communicative function. If, after discussing the complaint with the Ombudsman, the student desires, the Ombudsman shall communicate the nature of the complaint to the instructor involved. Then, if the student thinks an insufficient corrective effort has been made, the student may discuss the matter with the Ombudsman and request that the complaint be forwarded to the instructor’s department chair. The Ombudsman shall regard all information received by virtue of the position as absolutely confidential, except as provided in this statement. Students who do not choose to use the services of the Ombudsman can use the process of administrative appeal, starting first with the instructor, then the instructor’s department chair, the dean, and finally the Provost and Vice President for Academic Affairs. Complaints should be resolved at the lowest level.

Undergraduate Scholastic Probation, Dismissal and Forgiveness Policies

Scholastic Probation
A minimum cumulative grade point average of 2.00 based on grades at Bradley University is required for graduation. Students must maintain this minimum grade point average each semester in order to remain in good standing.

A student whose cumulative grade point average is less than 2.00 will be enrolled on probation for the next semester. Students on probation will be unable to register for January Interim or May Interim during early registration. A student enrolled on probation who does not achieve either a cumulative grade point average of 2.00 or a semester grade point average of 2.25 at the end of the semester will be dismissed. If a student on probation does not enroll in the next regular semester (fall or spring), the student must apply for readmission and all academic records will be subject to evaluation. A student who enrolls on probation is urged to see his or her academic advisor who will review the academic program of the student and recommend a course of study. For students enrolled at Bradley on probation, participation in the Turning Point Program is recommended, and in most cases, required. (See below.)

A student’s probationary status will be changed to “good standing” as soon as the student’s cumulative grade point reaches 2.00 or higher.

Summer school and interim terms will not be counted as probationary, but grades earned will be computed in the student’s cumulative grade point average.

Turning Point Program
The Turning Point Program, an academic support service offered through the Center for Learning Assistance, is required for all undergraduate students on academic probation for the first time and reinstated students as recommended by the Academic Review Board. When final semester grades are processed, students are notified in writing about being automatically enrolled in the Turning Point Program.

Scholastic Dismissal
A student enrolled on probation who does not achieve either a cumulative grade point average of 2.00 or a semester grade point average of 2.25 at the end of the semester will be dismissed.

Once dismissed, the student will not be allowed to attend any class offered by Bradley University for college credit, including any interim, summer session, or continuing education class, without reinstatement. There are no reinstatements for the interim session immediately following dismissal. Apply for reinstatement with the Academic Review Board. In special cases, the academic dean may grant permission to enroll in summer sessions immediately following dismissal. A student’s enrollment will be canceled as a result of academic dismissal if there is no reinstatement by the Academic Review Board.

Petitions for Scholastic Reinstatement
Any student dismissed for poor scholarship has the right of appeal for reinstatement. A student should not expect to be reinstated until after one full regular semester has intervened. Petitions for reinstatement should be directed to the Academic Review Board.

Academic Forgiveness Policy
To qualify for the Academic Forgiveness Policy, students must have not been enrolled in a Bradley degree program for at least five years.

Persons who wish to be readmitted to Bradley University under the Academic Forgiveness Policy must petition the Academic Review Board and request forgiveness of previous grades earned at Bradley. If the petition is approved, grades
for all Bradley courses taken before the hiatus of five or more years will be removed from the GPA calculation. Students will retain credit for those courses with grades of “C” or better, whether the credit was taken in residence at Bradley or from another source.

The forgiven grades shall not count in determining the student’s grade point average for academic probation or dismissal for graduation; however, they shall remain on the transcript with an appropriate notation, and shall be used in determining graduation honors.

Forgiveness is a one-time option which is final and irreversible once granted.

Academic Review Board
The Academic Review Board is authorized to act upon petitions of reinstatement of undergraduate students dismissed for poor scholarship. This board also considers petitions for Academic Forgiveness and waivers of graduation regulations.

Dismissal for Other Causes
Students found guilty of a breach of academic integrity (plagiarism, cheating, unauthorized use of University computers, etc.) are subject to disciplinary action, including dismissal from the University.

It is the responsibility of the faculty member to report to the Executive Director of the Center for Residential Living and Leadership any occurrences of breaches of academic integrity and the penalties assigned to the student. Specific procedures for doing so and the appropriate penalties are published in the Faculty and Student Handbooks.

In addition to breaches of academic integrity, students whose actions are considered detrimental to the best interest of the University may be dismissed from the University upon recommendation of the administration, the faculty, or the appropriate University committee. Such actions are specifically described in the University’s Student Handbook.

Breach of Academic Integrity
According to Senate rules, all occasions of academic dishonesty must be reported to the Executive Director of Residential Life and Leadership, together with a statement of the penalty imposed by the faculty member. If, in the opinion of the Executive Director of Residential Life and Leadership, other problems of a personal or an emotional nature are present, a referral to the Center for Student Health Services will be made.

Cheating
Cheating is officially defined as giving or attempting to give, or obtaining or attempting to obtain, information relative to an examination or other work that the student is expected to do alone and not in collaboration with others, or the use of material or information restricted by the instructor. Each instructor will indicate beforehand work that may be done in collaboration with other students.

Examples of cheating include but are not limited to copying from another person during an examination, using materials not allowed by the instructor during an examination, collaboration on a take-home examination or other assignments where it has been expressly prohibited by the instructor, and the submission of a laboratory report based on data not obtained by the student in the manner indicated by the instructor. The person who provides illicit information is liable to the same punishment as the person who receives and uses it.

A “Zero,” or whatever is the equivalent of the lowest failing grade possible, shall be assigned for that piece of work to any student cheating on a non-final examination or other class assignment.

A “Zero,” or whatever is the equivalent of the lowest failing grade possible, shall be assigned on a final examination to any student cheating on a final examination. An “F” shall also be assigned as the course grade to any student cheating on a comprehensive final examination.

Plagiarism
Plagiarism is no lesser an offense than cheating. Examples of plagiarism as stated in The Modern Language Association's MLA Handbook for Writers of Research Papers include but are not limited to repeating another's sentences as your own, adopting a particularly apt phrase as your own, paraphrasing someone else's argument as your own, and presenting someone else's line of thinking in the development of a thesis as though it were your own.

A “Zero,” or whatever is the equivalent of the lowest failing grade possible, shall be assigned for that piece of work to any student plagiarizing on a non-final piece of work. In the case of a student plagiarizing on a final research paper or project, an “F” shall also be assigned as the course grade.

Repeated Offenses of Plagiarism and Cheating
For repeated or aggravated offenses of cheating and or plagiarism, additional action, including dismissal from the University, may be taken pursuant to the Student Handbook procedures related to the University Judicial System and the disciplinary sanctions for violation of University regulations.

Other Breaches of Academic Integrity
Other examples of what might constitute a breach of academic integrity include, but are not limited to, the following: bribes, favors or threats with the intent of influencing a grade or any other evaluation of academic performance; taking an examination for another student; and grade tampering.

Grievance Procedure
If the student objects to the instructor's conclusion that a breach of academic integrity has occurred, the student may consult the University Ombudsman and/or appeal the instructor's conclusion through the instructor's department chair to the Dean or to the Dean's designee(s) of the college in which the course is offered, within 20 days of the time that the student receives written notification of the instructor's conclusion. A copy of the notification will be filed with the Director of Residential Life and Student Ju-
cial System. Due process requirements for a fair hearing shall be provided to all parties. The record of the hearing before the Dean or the Dean's designee(s) shall consist of written statements of the instructor and student in support of their positions provided prior to the hearing and a tape recording or transcript of the hearing itself. An appeal of the decision of the Dean's or the Dean's designee(s) may be made within 10 days of the decision by written appeal to the University Student Grievance Committee. In the event of an appeal, the Dean shall transmit the decision to the University Student Grievance Committee, and if the Dean's designee(s) rendered the decision, the Dean shall indicate whether or not he or she agrees with the decision.

**Graduation**

**Responsibility for Graduation Requirements**

Every candidate for a degree is personally responsible for meeting all requirements for graduation. No University official can relieve the student of this responsibility.

**Application for Graduation**

Seniors who plan to receive a baccalaureate degree in December should make application for graduation at registration time for the fall semester, or no later than the end of the first full week of classes in the fall semester. Candidates for the baccalaureate degree in May should make application at registration time for the spring semester, or no later than the end of the first full week of classes in the spring semester. Students can apply for graduation online via Webster (webster.bradley.edu). In addition, application forms are available in the Registrar's Office and online at bradley.edu/registrar/graduation. Completed undergraduate applications must be filed in the Registrar's Office.

If a student fails to complete the requirements at the time stated on the application for graduation, reapplication must be made for a later date.

**Completion of Degree Requirements**

Students who maintain continuous enrollment and who complete work toward the baccalaureate degree within five years from the date of entry may graduate under either the catalog in effect at the time of entrance or under the catalog in effect at the time of graduation. A change in major could mean meeting new requirements in force at the time of the change as a condition for acceptance into that major. Students whose work has been interrupted for one or more semesters may be held to requirements in effect at the time of their re-enrollment.

Candidates for a degree must meet all-University requirements and requirements in the curriculum for which they have applied. The deans of the colleges give final approval for graduation and recommend the candidates for the degree. Therefore, questions concerning degree requirements should be directed to the college deans.

Students electing to take courses at another accredited institution to meet Bradley graduation requirements must obtain prior written approval of their dean. An official transcript covering this coursework must be received by the Bradley University Registrar's Office no later than two weeks after the end of the Bradley semester.

The grades of all work needed to fulfill the graduation requirements, whether earned through residence at Bradley or on another campus, must be completed and received by the Registrar's Office no later than two weeks after the end of the Bradley semester.

Note the University regulations concerning incompletes and their removal deadline earlier in this catalog. Incomplete grades must be resolved prior to the degree being awarded.

**Attendance at Commencement**

Commencement is held following the end of each regular semester. All candidates for the degree whose names appear on the tentative list of candidates posted one month prior to the commencement may attend the commencement ceremony.

Students may participate in Commencement if they have proof of registration for the work which will complete the requirements for the degree. If some coursework is being transferred, proof of registration from the Registrar of the other institution must be received by the end of the third full week of classes.

Students who have degree requirements remaining may apply for permission to participate in a particular commencement if the following conditions are met: the remaining degree requirements do not exceed two courses and/or required practical experiences; and it must be possible for the student to complete the remaining degree requirements during the interim and/or summer session immediately following the commencement. Formal requests for permission must be filed with your college dean. The actual date of the degree would be the next official graduation date immediately following the completion of degree requirements.

**Awarding of Diplomas**

Diplomas will be awarded at the end of the Fall, Spring, and Summer terms, whichever date follows the completion of all of the requirements for the degree, and will bear that date. Diplomas will be awarded only to students completing all degree requirements.

**Honors**

**Cum Laude, Magna Cum Laude, Summa Cum Laude**

By commencement honors, Bradley University recognizes a student's superior scholastic achievement. Evidence of achievement is shown by the student's grade point average (GPA).

To be awarded special honors at Commencement, a student must have earned or be registered for a minimum of 60 semester hours in residence at Bradley University.
A student will be awarded Commencement Honors according to the following standard:

3.40-3.59 Cum Laude
3.60-3.79 Magna Cum Laude
3.80-4.00 Summa Cum Laude

For recognition at Honors Day and at Commencement, the computation of the Honors designation earned by GPA shall be made on the basis of cumulative GPA and hours completed at the end of the semester immediately preceding graduation (normally after seven semesters of work). The computation of the GPA for Honors designation on the student’s permanent record and diploma shall be made on the basis of all work completed at Bradley University at the time of graduation.

Students who have successfully completed the requirements of the University Honors Program will be recognized for this achievement by a separate certificate.

Dean’s List
Those full-time students who earn a semester GPA of 3.5 or higher on a 4.0 grading scale are given the distinction of being placed on the University’s Dean’s list for their outstanding scholastic achievement.

University Student Grievance Policy
A student academic grievance is appropriate in cases in which the student claims unfair, prejudicial, or capricious evaluation or treatment of an academic nature. A grievance is not appropriate on actions which would impair the exercise of academic freedom. A student non-academic grievance is appropriate in cases involving access to and participation in course offerings, sexual harassment, racial discrimination, or any other act by a University faculty member that is derogatory or discriminatory in nature. No student may pursue the formal part of the following grievance procedure before exhausting all informal procedures. What follows does not preclude a faculty member’s appeal to the Faculty Grievance Committee.

The grievance process is intended to deal with matters as expeditiously as possible. Although the times listed below are recommended guidelines for handling the steps of the process, it is expected that they will not be exceeded except under compelling circumstances.

A student who claims grievance as described may consult with the Ombudsman or meet directly with the instructor involved. The grievance process is as follows:

1. Informal Procedure
   a. The student shall meet with the instructor in an attempt to resolve the issue within 15 days on a non-academic grievance and normally within 15 days of the beginning of the next semester on an academic grievance. (The student may consult with the Ombudsman.)
   b. Should the issue not be resolved to mutual satisfaction, the student may, within five days, appeal an academic matter to the Chair of the given Department who shall provide the student and faculty member with a decision within five days of appeal, or appeal a non-academic matter to the office of the Associate Provost for Student Affairs, who will attempt to resolve the matter within 10 working days from the time of appeal. In cases involving a conflict of interest with the Associate Provost for Student Affairs, the student may appeal a non-academic matter to the Provost and Vice President for Academic Affairs. If any unfair or unjustifiable injury or disadvantage occurred, the decision shall include specific remedies to rectify the situation.
   c. Should an academic issue not be resolved to the satisfaction of the parties, the student or faculty member may, within five days, appeal the decision of the Chair to the Dean(s) of the College(s) in which the given academic concern resides and to the Dean of the Graduate School if a graduate student is involved. This appeal shall specify in writing the alleged grievance. The Dean(s) or Dean(s)’ designee(s) should meet with the relevant parties within five days of the appeal. The Dean shall deliver a decision within five days after said meeting. If any unfair or unjustifiable injury or disadvantage occurred, the Dean’s decision shall include specific remedies to rectify it.

2. Formal Procedure
   Should the issue not be resolved to the satisfaction of the parties, the student or faculty member may, within five days of the final written decision above, initiate the formal phase of the grievance procedure by written appeal to the Chairperson of the University Student Grievance Committee. Legal counsel may be used by the parties at the parties’ cost, as part of the formal procedure. Legal counsel for either party shall act in an advisory capacity only and not be permitted to speak on behalf of any party. The Committee shall have access to the University attorney on procedural matters.
   a. The Student Grievance Committee shall accept for hearing only those cases considered grievances as described above.
   b. The Student Grievance Committee shall meet at the call of the Chairperson upon receipt of a formal grievance. The Chairperson will:
      1) Obtain written statements from all parties involved in the appeal.
      2) Call for a meeting of the Committee to review the statements from the parties involved within 10 days of submission of the appeal, unless extraordinary circumstances require a delay, and determine a date and time for the hearing.

   The Committee will:
      3) Notify all parties of the time, date, and place of the hearing at least five days in advance.
      4) Call on other faculty, staff, and students if it would serve the purposes of due process.
5) Retain records of all written matters dealing with each case.
6) If the committee decides that a grievance is not in order and the alleged grievance concerned discrimination, a copy of the minutes of the meeting will be sent to the Affirmative Action Officer.

c. The Committee shall submit its findings and decision to the appropriate academic officer for review within 45 days after the matter has been formally submitted to the Committee. This time period shall not include University holidays and times when the faculty are not under contract such as during the summer. If the Committee finds that unfair or unjustifiable injury or disadvantage has occurred, it shall forward to the appropriate academic officer its specific suggestions for rectifying it. The appropriate academic officer, within 30 days of the receipt of the findings and recommendations of the Committee, shall notify all concerned parties of agreement or disagreement with the Committee's decision, stating the reasons in writing. Upon agreement of the parties, the grievance process can be concluded at any time before notification by the appropriate academic officer.

d. In cases where there are findings of unfair or unjustifiable treatment of students in a non-academic matter, the Associate Provost for Student Affairs is responsible for rectifying the situation per the Committee's findings.

Miscellaneous University Regulations

Absences
This is the all-University policy regarding absences. Consult the policy of your own college or department for further details.

Every student is expected to attend all classes regularly. Each student is responsible for all work contained in the course, even in case of absences caused by circumstances beyond the control of the student. In case of absence, provision for make-up work, insofar as make-up work is possible, may be made by the instructor if acceptable reason for the absence is presented.

The grade in any given course will therefore ordinarily depend upon the amount and quality of the work done in the course. Absence will affect the grade insofar as the quality of work is affected. Reasons for absences are presented to the instructor by the student.

Change of College or Curriculum
Changes of a student’s major must be initiated with the academic advisor in the student’s current major field. A list of these advisors is found in the front of the Schedule of Classes.

After the form has been completed by the academic advisor, the student should take the form to the dean of the college in which the student was registered for the dean's signature. The student obtains the signature of the advisor in the new major field, and then takes the form to the dean of the college to which the student is transferring and leaves the form with the new dean. If the change does not involve a change of college (merely a change of curriculum within the same college) the dean of that college will retain and process the form.

Change of Address
Students should report promptly to the Registrar’s Office in Swords Hall any change of address whether this change involves the student's campus address, permanent mailing address, or parents’ address.

All addresses for students not in residence halls can be changed online at http://webster.bradley.edu.

Transcript of Credits
A transcript of credits is an authentic copy or printout of the student's academic record. No partial transcripts will be issued. Transcripts are released only on written request of the individual concerned. This order must be placed in person or by mail to the Registrar's Office. No phone orders can be accepted. Bradley University has authorized the National Student Clearinghouse to provide transcript ordering at bradley.edu/registrar/transcripts.

A fee of $4.00 for each copy ordered is payable in advance for transcripts. No student who is indebted to the University in any way will be issued a transcript until the debt is cleared by the office concerned.

Bradley University does not issue nor certify copies of transcripts from other institutions.

Financial Obligation of the Student
No report of grades is sent for the student whose financial account with the University has not been settled in full, nor will the grades be available on the Web. Likewise no diploma, professional certificate, transcript of credit, or other information concerning academic record is given until the student’s account has been cleared.

Student Consumer Information
Federal regulations require universities to make student consumer information available to prospective and current students concerning: financial assistance information; institutional programs and policies; graduation rates; safety programs, policies, and crime statistics; athletic program participation rates and financial support data; and rights under Family Education Rights and Privacy Act. This information may be obtained by requesting the Student-Right-to-Know and Campus Security Act Compliance Report from Bradley University’s Office of University Relations at (309) 677-3164. Safety information and crime statistics are available online at bradley.edu/police/
Special Academic Programs

The Academic Exploration Program
Trillizio, Coordinator; Aspin (Political Science), Bertram (Health Science), Carlson R. (Art), Cluskey (Nursing), Collins (Family and Consumer Science), Craig (Physics), Curtis (Criminal Justice), Felder (Economics), Field (Chemistry), Fischer (Learning Assistance), Flint (Chemistry), Frase (Biology), Gehring (Biology), Gobeyn (Political Science), Hall (Political Science), Harding (Testing), Highfill (Economics), Hill (Marketing), Huffcutt (Psychology), Jones (Learning Assistance), J. Jost (English), McBride (Engineering), McConnaughay (Biology), Morris (Biology), Nighswanger (Testing), O’Brien (Economics), Patton (Computer Science), Rapp (Learning Assistance), Rigley (Testing), Roberts (Psychology), Robertson (History), Rowe (Art), Sconduto (Foreign Languages), Scott (Economics), Winkle (Testing), Wojcikewych (Economics), Zant (Sociology), Zohoori (Communication).

The Academic Exploration Program is one of the most comprehensive programs of its kind in the country. Concerned and available faculty, strong supportive services, and seminars in career and life planning make being unsure of what you want to major in less threatening.

The Academic Exploration Program is designed to help you find your interests and develop your future plans. This is possible in an environment that allows you to explore different courses in areas of interest to you. Through its flexible curriculum, a student may enroll in classes in any of the colleges on campus. The faculty associated with the program teach in different colleges and curricula on campus. As a result, students have advisors who represent different academic interests. This student-to-advisor relationship makes the Academic Exploration Program a viable alternative for students.

Students enrolled in the Academic Exploration Program must meet with their academic advisor each semester or they will not be eligible to register for classes.

Students must declare a major by the time they have completed their sophomore year.

The Academic Exploration Program was selected as the Outstanding Institutional Advising Program in the nation among private universities in 1985.

AEP 100 Student Planning Seminar
Required for all first semester freshmen AEP students. Focuses on individual development of academic interest concepts, methods and tools of career research, and recognition of personal strengths, values, and characteristics. Enables students to identify careers and majors consistent with abilities, interests, and personality.

AEP 105 Student Planning Seminar II
For students needing additional assistance in deciding a major. Focuses on a student’s better understanding of his/her own personal attributes. Through an individualized set of assessments, a student will be assisted in determining personal characteristics which may indicate appropriate academic majors for consideration.

Lewis J. Burger Center for Student Leadership and Public Service
The Lewis J. Burger Center for Student Leadership and Public Service represents the University’s commitment to educate and prepare students for civic responsibility and become committed leaders for the 21st century. The Center consists of three major interdependent components that concentrate on leadership development and community involvement. By involving students in a myriad of service activities and leadership seminars, the Center will benefit Bradley students, central Illinois, and society at large.

The Center also administers the Student Leadership and Public Service Fellows Program. Each year Bradley will designate a maximum of 15 freshmen as Student Leadership and Public Service Fellows, selected on a competitive proposal basis. Each Fellow will receive a $1,000 scholarship renewable over four years and, in addition to the normal course of studies, agrees to complete specified activities over eight semesters to prepare the Fellow for a leadership role in their career and community.

The Center provides opportunities for students to be involved in community service and leadership activities while incorporating a service component into the curriculum where appropriate. The Center is also affiliated with the Washington Center in our nation’s capital, which provides additional leadership opportunities for students.
Career-Related Work Experience

Students are encouraged to gain a competitive advantage by participating in career-related work experiences prior to graduation. Through internships, cooperative education, and summer or part-time employment, the Marjorie and Bill Springer Center for Excellence in Internships provides students with opportunities for professional development that integrate classroom theory with supervised work experience.

Students have a choice of several options to follow. The part-time option allows students to attend classes while working part-time with a local employer. The full-time option allows students to work full-time during an academic semester or summer. The full-time alternating option is based upon alternating periods of full-time study and full-time work. All the above options correspond with the academic calendar.

A series of job search workshops is offered to assist students in the co-op or intern process. Employers review resumes and/or conduct interviews to make hiring decisions. Placement is not guaranteed. Student-developed jobs may be approved if they meet the work-learning criteria.

While on a registered full-time co-op/intern assignment, students are considered to have full-time student status, making normal progress toward a degree in a recognized University program, and are entitled to all student privileges at the University. Also while on a full-time co-op/intern assignment, students may register for additional hours of classroom study upon departmental approval.

In order to be referred to an employer or participate in an internship or cooperative education work assignment, students must be attending Bradley University. They also must be either registered for a minimum of three hours of non-cooperative education/internship credit or be on a full-time cooperative education or internship assignment. A work assignment or credit will not be approved retroactively.

Honors Program

The Honors Program is designed to accommodate the special needs and interests of students wanting to take best advantage of Bradley's educational resources. The major goal of the Honors Program is to establish a learning environment that will encourage students to develop their scholarly talents and to broaden the range of their intellectual interests.

Admission to the Honors Program is based upon many criteria including high school rank, scores on standardized tests, and other special considerations appropriate to individual cases. All admitted freshmen who have a composite ACT of 28 (or equivalent SAT) and rank in the top 10 percent of their high school class will automatically be sent applications to the Honors Program. Other entering freshmen, transfer students, or currently enrolled students interested in applying should contact the Honors Director.

The Honors Program is structured so that students majoring in any department are eligible to participate. The program builds progressively through a student's four years at Bradley, beginning with special honors sections of General Education courses and leading to interdisciplinary seminars and possibilities for independent research. The use of smaller classes, seminar-style teaching, and special cultural events promote the kind of intellectual curiosity that will prepare young men and women to assume leadership roles in their professions and communities.

Additional information about the program can be obtained from the Honors Director.

Summer and Interim Sessions

Recognizing that students often need time to catch up, get ahead, or update their knowledge, Bradley offers special terms for taking courses.

In January Interim students can earn up to four semester hours in classes that meet for approximately two weeks.

In May Interim I, a three-week term, students can earn up to four semester hours; in May Interim II, an eight-week term, students can earn up to seven semester hours.

Summer Session I, beginning in June, and Summer Session II, beginning in July, are four-week programs in which students can earn up to seven semester hours of credit in each term.

The schedule for January Interim is available in October. May Interim and Summer Session course schedules are available in March.

For more information about summer and interim sessions, contact Continuing Education, (309) 677-2374.

Admission to Summer and Interim Sessions

Students who have been admitted to Bradley and have attended the previous regular semester can generally use Webster, the online registration system, to register for summer and interim sessions. Thus, students wishing to register for January Interim must have attended during the preceding fall semester. Those wishing to register for May Interim and Summer Session terms must have attended Bradley during the preceding spring semester. In both cases, the student must be in good standing in order to register for interims and summer sessions.

Students who are new to Bradley, or admitted students who have not recently attended Bradley, are admitted to Bradley in the following ways:

• Students without undergraduate degrees wishing to enter an undergraduate degree program or take undergraduate courses at Bradley, contact Undergraduate Admissions.

• Students with undergraduate degrees wishing to take graduate courses, contact the Graduate School.

• Students previously admitted to Bradley who have not recently attended should contact the appropriate office indicated above.
Military Science

A cross-enrollment agreement between Illinois State University (ISU) and Bradley University makes training in the Army Reserve Officers Training Corps (AROTC) available to qualified Bradley students who desire to earn appointment as commissioned officers in the United States Army. The goal of the AROTC is to commission college graduates into the Active, National Guard, and Reserve components of the Army. Military science classes are conducted on Illinois State's campus in Normal, Illinois and at Bradley University. Military science classes are recorded on students' transcripts, and the grades received and semester hours of credit are counted as if they had been taken at Bradley.

For more information, please contact the Registrar's Office at (309) 677-3101.

Sequence

To complete the basic course a student must complete MS 101, 102, 111, and 112, normally taken in that sequence, over a four-semester period. Exceptions are determined by law and may be discussed on an individual basis with the professor of Military Science at ISU. Entry into the advanced course requires successful completion of the basic course, basic camp or advanced placement, and acceptance by the professor of Military Science. The advanced course must be completed over a four-semester period, the usual sequence consisting of MS 220, 221, 240, and 241.

MS 101 Introduction to Leadership: Individual Effectiveness
Introduction to leadership from perspective of the member of an effective organization. Self-enhancement skills such as time management techniques, problem solving and decision-making processes, and health enrichment actions. Offered each fall.

MS 102 Introduction to Leadership: Teamwork
Basic leadership fundamentals, principles, and experiences. Relevant for all organizational leaders. Purpose is to examine how the individual organizational member and the team are affected by leaders and leadership decisions. Offered each spring.

MS 111 Applied Leadership II
Map reading fundamentals; application of land navigation principles using the lensatic compass and terrain association. Provides opportunities to exercise leadership skills to meet established goals and objectives within specific time constraints.

MS 112 Applied Leadership
Provides more in-depth and critical assessment of leadership within American society. Students are challenged to learn and apply leadership principles. Group research projects designed to research, examine, and analyze leaders and leadership within community context. Offered each fall.
**MS 200  Leadership Laboratory**  
Provides development by practical application of the student’s leadership skills through progressive training in planning, execution, and assessment. Registration in AROTC Advanced Course Required. Offered each semester.

**MS 203  ROTC Leadership Training Course**  
Provides instruction and practical application on basic military concepts of map reading, tactics, small group operations, weapons, and adventure training. Training is presented off campus at Fort Knox, Kentucky. Provides constructive credit for first two years of ROTC. Consent of instructor required. Pass/Fail only. Offered each summer.

**MS 220  Advanced Leadership and Tactics I**  
Provides general knowledge and understanding of advanced leadership principles, small unit offensive operations, land navigation, and the operating systems. Consent of instructor required. Offered each fall.

**MS 221  Advanced Leadership and Tactics II**  
Provides knowledge and understanding of advanced combat leadership techniques, small unit defensive operations, patrolling, and land navigation. Registration in AROTC and MS 220 or consent of instructor required. Offered each spring.

**MS 240  Advanced Applied Leadership I**  
Fundamental concepts of military justice; principles of court-martial and non-judicial punishment; staff principles and procedures in the Army organizational structure. Registration in AROTC Advanced Course or consent of instructor required. Offered each fall.

**MS 241  Advanced Applied Leadership II**  
Introduction to professionalism and military professional responsibility. Provides students with a capstone experience in leadership studies before their transition to officership. Registration in AROTC Advanced Course or consent of instructor required. Offered each spring.

**MS 242  Leadership Development Assessment**  
Instruction and practical application in field training, demonstration of leadership capabilities, and leadership opportunities of problem analysis, decision making, and troop leading. Training is presented off campus near Seattle, Washington. Registration in AROTC Advanced Course required. Pass/Fail only. Offered each summer.

**Study Abroad**  
**Director, Blouch**

Bradley University encourages its students to take advantage of study abroad programs approved by the University Curriculum and Regulations Committee. Students who wish to study abroad should begin early to investigate with their advisors the appropriate program for their needs. Study abroad is usually undertaken in the junior year.

The office which handles the necessary registration and fees activity for study abroad is located in Caterpillar Global Communications Center, Room 325.

Study Abroad can broaden your horizons and deepen your cultural sophistication. It can foster maturity and self-confidence mixed with worldly experience. Study Abroad can be a turning point in your education. Education at its finest provides more than learning… it raises eager learners and academic risk takers to intellectual courage and wisdom. Study Abroad often is a catalyst for such excellence. Some of the Study Abroad programs Bradley features include the following: Bradley has affiliated with the Danish International Studies program in Copenhagen. By special arrangement, Bradley students are placed directly in some of the finest British universities. Each has a demanding curriculum and friendly environment. By way of a long-standing working relationship with the Council on International Educational exchange, Bradley students with the appropriate proficiency in foreign languages can study in France or Spain. Well-qualified Bradley students have the opportunity to study in Jerusalem at the Rothberg School for Overseas Students, Hebrew University. Existing and developing relations with fine universities in Mexico, the Czech Republic, Germany, Hungary, Russia, and Japan provide Bradley students with additional excellent placement opportunities for Study Abroad.

In addition, since 1969 the University has operated a Summer Seminar Abroad. This program is conducted by a group of Bradley University faculty who, in various locations throughout Europe, teach courses chosen from the University curriculum. A shorter version of this program is offered during the January Interim.

Details of all study-abroad programs may be obtained from Dr. Christine Blouch, Director of International Programs, Caterpillar Global Communications Center, Room 325, (309) 677-2400. Additional information is also provided at bradley.edu/academics/abroad.

**The University Experience**

This course for all new students increases the likelihood for personal and academic success. Through the exploration of contemporary social issues, students gain a greater appreciation for the diversity inherent within the University and its faculty, staff, and student body. Other topics concerning the academic, personal, and physical well-being of students are also explored to prepare students for living within the college environment.

**EHS 120  The University Experience**  
1 hr.

Designed to help new students adjust to the University environment. Assists students in gaining an appreciation for higher education, general education, and the value of a Bradley University education.
Registration

Registration is an official part of the academic year. By registering, the student subscribes to the terms and conditions, financial and otherwise, which have been set forth by the University. A correct registration is the responsibility of the individual student. Payment of tuition and fees must be made by the deadlines published by the Controller's Office.

Late registrations may be processed by the student during the first full week of classes. After the first full week of classes, additions may be made only by special permission. The student must obtain the Late Add Request Form and approval signature of the advisor, instructor, and dean of the college of the student’s major field. Late registrations are usually not approved after the second week of classes.

Schedule Changes After Registration

Once a student has registered for even a single class section, changes to that schedule (additions and deletions) may be made by using Webster, the Web registration system, at http://webster.bradley.edu. Instructions are outlined in the Schedule of Classes at bradley.edu/classes. Students may cancel their registrations in any classes up to the end of the second full week of classes. These registrations will not be a part of the permanent record. During the third full week through the twelfth full week of classes all courses dropped will be recorded on the permanent record with the indication of “W” (Withdrawn) and the date.

After the twelfth full week of classes, the dean of the college in the student’s major field may, in case of extreme hardship, authorize a student to withdraw from one or more, or all, courses. This action will be recorded on the student’s permanent record with the grade of “W” together with the withdrawal date.

After the first full week of classes, classes may be added only with special permission. The student must obtain a Late Add Request Form and approval signature from the academic advisor, obtain approval from the instructor and chair of the department offering the class, and then obtain an approval signature from the dean of the college in which the course is offered. Classes are not added to a student’s program and no registration is permitted after the second full week of class instruction.

A student who drops a course after the second full week of classes may, with permission of the instructor, continue to attend that class for the remainder of the semester.

This privilege will not be permitted in laboratory, military, or studio courses.

Procedures for withdrawing from the University are given in the current Schedule of Classes at bradley.edu/classes.

Students should consult the most current edition of the Schedule of Classes at bradley.edu/classes for details concerning procedures, dates, and refund policies.

Undergraduate Leave of Absence Policy

The leave of absence opportunity is available for undergraduate students who must leave Bradley University for a period of time not to exceed 12 consecutive months. A leave of absence may be granted for various reasons, such as personal, medical, or financial. The leave of absence must be approved in advance of the semester in which the leave of absence is to begin and can not be granted to a student who is on probation or dismissed from the University. For the complete policy, consult the Registrar’s Office or the dean of your college.

Credit Taken in Residence at Bradley

Student Course Load

Twelve semester hours is the minimum load for a full-time student during spring or fall semesters. The regular load is prescribed by the college in which the student is enrolled. A student must petition to enroll in excess hours (more than 18½ hours in a regular semester). The authority to approve petitions for excess hours shall be vested in the dean of the college in which the student is registered.

Summer and interim sessions are shorter terms with the following maximum course loads: January Interim students can earn up to four semester hours in classes that meet for approximately two weeks. In May Interim I, a three-week term, students can earn up to four semester hours; in May Interim II, an eight-week term, students can earn up to seven semester hours. Summer Session I, beginning in June, and Summer Session II, beginning in July, are four-week programs in which students can earn up to seven semester hours of credit in each term.

One credit hour is usually assigned to a class that meets 50 minutes a week over a period of a semester. In laboratory, fieldwork, or similar type of instruction, one credit hour is assigned for a session that meets two or three hours a week for a semester.
An Undergraduate Student-at-Large (non-degree-seeking) may not take 12 or more semester hours during either fall or spring semesters except without approval. A maximum of 45 semester hours taken as an Undergraduate Student-at-Large can be accepted toward a degree program. Students who are uncertain about their interest in pursuing a degree are strongly encouraged to apply for admission to a degree program rather than enroll as an Undergraduate Student-at-Large.

All courses taken for credit for which a student is registered at Bradley or elsewhere are counted as part of the total semester hour load the student is permitted to carry.

**Student Class Standing**

- **Freshman:** fewer than 24 semester hours of credit.
- **Sophomore:** at least 24 but fewer than 56 semester hours of credit.
- **Junior:** at least 56 but fewer than 90 semester hours of credit.
- **Senior:** 90 or more semester hours of credit.

**Change of Student Status (Full-Time or Part-Time)**

Ordinarily, the classification of full-time students will not be changed after the second week of classes even though the course load drops below 12 semester hours. In cases where this rule creates undue hardship, the dean of the college involved, upon the student's request, may suspend this rule.

**Prerequisites**

Students should understand that listed prerequisites may be met through equivalent courses. Please consult your academic advisor if you have a question about prerequisites.

Students who enroll in courses for which they do not meet the prescribed prerequisites may be required to withdraw from the courses.

**Course Numbering System**

The following course numbering system is used as a guide for students in selecting courses: courses numbered 100-199 are planned primarily for freshmen. Courses numbered 200-299 are intended primarily for sophomores. Courses numbered 300-499 are designed primarily for juniors and seniors. Courses numbered 500-599 are open only to seniors, graduate students and specially qualified juniors. Courses numbered 600-699 are reserved for graduate students only.

Please consult the all-University, college, and departmental requirements for the number of semester hours needed at specific course levels.

**Repeated Courses**

The University Senate has designated some courses as repeatable up to a specified number of credit hours. For all other courses, the following policy applies. A student at Bradley may not receive credit for the same course twice. However, a student is permitted to repeat courses within one year after completion; thereafter permission to repeat a course must be obtained from the dean of the college in which the student is registered. The last grade and credits earned for each course shall be the only ones used in computing the grade point calculations and in satisfying graduation requirements. However, the entry on the permanent record for both enrollments remain. (Proficiency exams cannot be used for repeating courses because credit earned in this manner is not used in grade point calculations.)

If a student registers again for a course which is already a part of the scholastic record and the number of the course has changed since the original enrollment, permission to substitute a course must be obtained from the dean of the college which offered the course being repeated.

**Auditing Courses**

All Bradley students (undergraduate, graduate, full-time and part-time) in good academic standing registered for a given academic term, along with individuals admitted “at large,” for a given academic term may request permission to enroll as an “auditor.” Permission to audit a course must be approved by both the instructor and the chairperson of the department offering the course. Enrollment is contingent on having available space in the class. Except in special circumstances to be determined by the instructor and department chairperson, courses involving laboratory or studio work cannot be audited. Only regular students and auditors listed on the official class roster are allowed to attend class.

Forms for audit registration are available in the Registrar's Office or online. Audit registrations are accepted by the Registrar’s Office only after the first day of classes of each academic term.

The extent to which an auditor participates in a course and the requirements for satisfactory performance must be specified by the instructor when approval is granted. Instructors are not obligated to grade any course work performed by the auditor. Courses taken for audit do not earn academic credit, do not apply toward any academic degree and do not count toward a student’s full-time or part-time load for purposes of financial aid, loan deferments or visa status. Courses taken for audit are recorded on the student’s permanent academic record as completed satisfactorily (“X”), completed unsatisfactorily (“UX”), or withdrawn (“W”).

After the last day for adding classes with special permission, anyone who is registered as an auditor may not change the audit registration to a “for credit” status, i.e. a regular registration; likewise, a student registered for credit may not change to audit status. Deadlines associated with courses taken for credit and courses taken for audit are identical.

All individuals will be charged a non-refundable fee for audited courses. The current fee is published in the Schedule of Classes. Persons who have audited a course may petition to

*Credits from other institutions including foreign universities will be evaluated for possible transfer on a case-by-case basis.*
earn credit by proficiency examination; however, the charge for a proficiency examination for credit is based on the standard tuition structure determined by the Controller's Office with a credit granted for charges associated with auditing.

**Non-Resident Credit**

**Transfer Credit From Collegiate Institutions**

Credits from collegiate institutions that are accredited by one of the regional accrediting associations such as the North Central Association of Colleges and Secondary Schools will be considered for acceptance at Bradley University. Official transcripts of credit must be requested by the student and received by Bradley directly from the institution at which the credit was earned. Application of transfer credits to satisfy general education requirements shall be determined by the Associate Dean of the College of Liberal Arts and Sciences. Acceptance will be based on comparability of the transfer work with the nature, content and level of work offered at Bradley. Bradley University will not accept for credit the transfer of physical activity courses. Application of transfer credits to satisfy specific college graduation requirements shall be determined by the dean of the college in which the student is majoring. In the event that a student changes majors while at Bradley, a new evaluation of credit will be made. Courses with grades of “D” from a particular institution will be considered for transfer only if the student's cumulative grade average at that institution is at least 2.0 out of 4.0 at the time of transfer. The grade average for subsequent evaluations will be calculated only on the work not yet recorded on the Bradley permanent scholastic record. Once work with D grades has been evaluated and denied, it will not be evaluated again with work taken at a later time. (In some majors, D credit for transfer work does not count to fulfill specific requirements in that major.) Grades earned in transferable credits are posted on the student's permanent record solely for the purpose of advisement and evaluation by the department chair and dean of the college in which the student is enrolled. A maximum of 66 semester hours of credit allowed is determined by the dean of the college in which they are majoring before registering at the other institution. If the credit is to fulfill General Education requirements at Bradley, the written approval must come from the Associate Dean of the College of Liberal Arts and Sciences. Unless such written approval is given, students electing to take courses at another institution have no guarantee that the credit will be accepted at Bradley. Continuing Bradley students should request the other institution to send an official transcript of credit directly to the Registrar's Office at Bradley. If the other institution is using a quarter hour system, those hours will be converted to semester hours.

Seniors who take work at another institution to complete degree requirements at Bradley must file proof of registration for that work in the form of a letter from the Registrar of that institution. This letter must be received in the Bradley Registrar's Office by the end of the third full week of classes. The work must be completed by the time of Bradley's Commencement. The diploma will be awarded after receipt by the Bradley Registrar's Office of an official transcript of credits from the other institution.

**Level of Transfer Credit**

Transfer credit shall be accepted on the same level on which the work was offered at the source institution. For example, courses taught at the source institution on the freshman level will be accepted for credit on the freshman level at Bradley. No junior-senior credit will be given for work taken at a two-year college.

**Credit by Correspondence and Extension**

Students wishing to take correspondence or extension courses for transfer purposes must have the prior written approval of their dean. A total of thirty semester hours through extension and correspondence, with a maximum nine semester hours of correspondence, will be permitted to count toward graduation, except in the College of Engineering and Technology. In the College of Engineering and Technology, a maximum of ten semester hours of credit taken by correspondence and extension may be counted toward graduation.

**Examination for Advanced Placement**

Credit may be given in courses covered by Advanced Placement Examinations offered by the College Board if the score received is three or higher. The number of semester hours of credit allowed is determined by the extent of the college work covered by this examination, as recommended by the department offering the work at Bradley. Inquiries should be directed to the Admissions Office.

**College-Level Examination Program (CLEP)**

Bradley University accepts up to 60 semester hours of credit for those who earn scores on CLEP general and
subject exams in the 50th percentile or higher. Some of these hours may be used to satisfy general education requirements.

CLEP credit is transfer credit. Students wishing to transfer CLEP hours to Bradley may do so by directing the CLEP office to forward official score results to Undergraduate Admissions at Bradley University. Because CLEP credit is transfer credit, it cannot duplicate credit already earned from another source.

CLEP credit may be applied in the following ways to satisfy general education requirements:

- General Examinations. The five general exams are offered on these subjects: College Mathematics, English Composition with Essay, the Humanities, Natural Sciences, Social Sciences and History. Each test provides 6 semester hours of credit.
- Subject Examinations. Bradley accepts CLEP credit for 24 subject exams.

Not all CLEP exams are approved for credit at Bradley. If you have questions about how CLEP credit applies to Bradley, please consult the following:
- Your advisor, if you are currently enrolled at Bradley.
- Undergraduate Admissions, if you are a student new to Bradley.

For more information about testing sites or other details, contact CLEP at (609) 771-7865 or www.collegeboard.com/clep.

Credit by Proficiency Examination
Credit by proficiency examination is classified as non-residence credit. Upon presentation of acceptable evidence of competence, students enrolled in the University may apply for permission to attempt to earn credit by examination in certain undergraduate subjects. Applications for such examinations will be submitted to the chairperson of the department that offers the course, who will, if the application is approved, arrange for the administration of the examination.

Students receiving approval to attempt to earn credit by examination will pay a non-refundable fee of $50.00 for the examination for each course number listed in the catalog. This fee must be paid before the examination is taken.

Students who have had no previous college experience, and who have been admitted as full-time students, may apply for permission to attempt credit by examination in certain undergraduate subjects. Such examination will be taken prior to the student’s second registration. Credit, but no grade, will be recorded for examinations passed.

Grades for examinations taken after the student’s second registration will be entered on the permanent record. Students shall have the option of requesting either a letter grade or a grade of Pass/Fail. A grade of “C” or better will be considered a passing grade for both options. A grade of “D” is not acceptable for a proficiency examination. The option selected must be agreed upon by the student and the department offering the course at the time of application for the examination. Because credit by proficiency is not considered residence credit, grades are not computed in the student’s cumulative grade point average. Seniors may not take examinations for credit toward any degree in courses which are numbered below 300.

Application blanks are available in the dean’s or Registrar’s Office.

Departmental Prerequisite Examinations (Not for Credit)
At the discretion of the department offering the course, regularly enrolled students of the University may be allowed to take a special examination in any course offered by the department in order to satisfy prerequisites for subsequent courses. Before a student will be permitted to take a prerequisite examination, a $50.00 fee for each course number listed in the catalog must be paid to the Controller’s Office.

A prerequisite examination carries no University credit and no grade. Upon successful completion of a prerequisite examination an appropriate entry will be made on the permanent record of the student.

All-University Degree Requirements
Responsibility for Meeting Degree Requirements
A minimum of 124 semester hours is required for all baccalaureate degrees. The curricula of certain departments require as many as 150-155 semester hours.

Students who maintain continuous enrollment and who complete work toward the baccalaureate degree within five years from the date of entry may graduate under either the catalog in effect at the time of entrance or under the catalog in effect at the time of graduation. A change in major could mean meeting new requirements in force at the time of the change as a condition for acceptance into that major. Students whose work has been interrupted for one or more semesters may be held to requirements in effect at the time of their re-enrollment.

Residence Requirements
Only work registered through Bradley University during the two regular semesters or the interim and summer sessions is considered as residence work. No proficiency examinations, correspondence, extension courses, or credit earned through the College-Level Examination Program may be counted as residence work.

All candidates for the bachelor’s degree must meet the following residence requirements:

1. A minimum of 30 semester hours earned in residence is required of all students.
2. 24 of the last 30 semester hours must be earned in residence.
Junior-Senior Credits

Candidates for a bachelor’s degree must present a minimum of 40 semester hours in junior and senior courses (those numbered 300 and above). Check your college requirements for proper distribution of these courses.

General Education Requirements

Candidates for all baccalaureate degrees must complete requirements in general education. Students should consult the most current Schedule of Classes for the list of courses which are approved by the University Senate to fill these requirements.

The general education requirements are based upon the principle of “liberal education.” The fundamental assumptions about liberal education include:

- A liberal education provides all students with the intellectual tools necessary to explore the best that civilization has produced.
- A liberal education provides the means for all students to exercise control over their lives through thoughtful responses to their political, social, cultural, technological, and natural environment.
- A liberal education emphasizes critical, historical, theoretical, scientific, and aesthetic approaches to knowledge.
- A liberal education enhances the quality of life and fosters an appreciation of learning as a foundation for continuing inquiry.
- The purpose of a liberal education is to develop students, regardless of academic major or professional aspiration, who are able to understand and participate in society as responsible human beings.

The requirements for degrees from all colleges are:

**English Composition (C1 and C2)**

6 semester hours including English 101 (C1) and a 3-hour, 300-level advanced writing course (C2)

C1 ENG 101 English Composition or
CIV 111 and 112 Unified Composition and Western Civilization I and II

Completion of both CIV 111 and CIV 112 will satisfy C1 and WC general education requirements. No general education credit will be given if only one course is completed.

C2 choose from

ENG 300 Exposition
ENG 301 Argumentative Writing
ENG 304 Research in Individual Disciplines
ENG 305 Technical Writing
ENG 306 Business Communication

**Speech (SP)**

3 semester hours

COM 103 The Oral Communication Process

**Mathematics (MA)**

3 semester hours chosen from

MTH 101 Basic College Mathematics
MTH 111 Elementary Statistics
MTH 115 Brief Calculus with Applications I
MTH 116 Brief Calculus with Applications II
MTH 119 Calculus with Review B
MTH 121 Calculus I
MTH 122 Calculus II
MTH 223 Calculus III
IMT 212 Technical Calculus I
IMT 214 Technical Calculus II
IMT 216 Technical Calculus III

**Western Civilization (WC)**

3 semester hours

CIV 100 Western Civilization
CIV 101 Western Civilization to 1600
CIV 102 Western Civilization Since 1600
CIV 111 and 112 Unified Composition and Western Civilization I and II

Completion of both CIV 111 and CIV 112 will satisfy C1 and WC general education requirements. No general education credit will be given if only one course is completed.

**Non-Western Civilization (NW)**

3 semester hours chosen from

ENG 130 Intro. to Native American Literatures
ENG 381 Literatures of Asia
FLS 342 Survey of Hispanic-American Literature I
FLS 343 Survey of Hispanic-American Literature II
HIS 103 Non-Western Civilization: Russian History
HIS 104 Non-Western Civilization: The Middle East Since Muhammad
HIS 105 Non-Western Civilization: Latin America
HIS 107 Non-Western Civilization: Modern Japan 1860-Present
HIS 314 Non-Western Civilization: Japan and World War II
HIS 335 Modern Mexico
HIS 336 Early Non-Western History
HIS 337 Modern Non-Western History
HIS 338 Russia Since 1917
IB 204 Business in Chinese Culture
IB 208 Business in Mexican Culture
IS 182 Fundamentals of Contemporary Asian Civilization
IS 260 Fundamentals of Contemporary Islamic Civilization
IS 285 East Asia in the Modern World
IS 340 Africa in the International System
IS 355 Imperial Russia
RLS 121 Islamic Civilization
RLS 331 Religions of the Eastern World
RLS 336 Buddhism and Asian Civilizations
RLS 338 China: Religion and Culture

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1ENG 130 may be used to satisfy either the NW or CD requirement, but not both concurrently.
RLS 340 Japan: Religion and Culture  
SOC 300 Cross-Cultural Perspectives on Gender  
SOC 301 Peoples and Cultures of the Non-Western World  
SOC 311 Comparative Family Systems (of non-Western cultures)  
SOC 314 Native Americans  

Fine Arts (FA)  
(Education majors: Some courses are not acceptable by ISBE for teaching certification. See your advisor.)  
3 semester hours chosen from  
ART 107 Introduction to 2-Dimensional Creative Processes  
ART 108 Introduction to 3-Dimensional Creative Processes  
ART 131 Art Appreciation  
CFA 421 Art and the Creative Imagination  
MUS 109 Music Appreciation  
PFL 350 Art in Human Experience  
THE 131 Introduction to the Theatre  
THE 141 Film Appreciation  

Human Values (HL or HP)  
(Majors in the College of Liberal Arts and Sciences must take 6 semester hours: 3 hours HL and 3 hours HP.)  
3 semester hours chosen from  
Human Values - Literary (HL)  
ENG 115 Introduction to Literature  
ENG 123 European Writers  
ENG 124 American Writers  
ENG 127 British Writers  
ENG 129 African American Literature  
ENG 190 Women in Literature  
ENG 385 Literatures of Europe  
FLG 325 Introduction to French Literature  
FLG 325 Introduction to German Literature  
FLS 325 Introduction to Literature (Hispanic)  
FLS 340 Spanish Literature I  
FLS 341 Spanish Literature II  

Human Values - Philosophical (HP)  
IS 250 Theory and Practice of World Affairs  
PFL 103 An Inquiry into Values  
PFL 307 Classical Political Philosophy  
PFL 308 Modern Political Philosophy  
PFL 347 Ethics  
PFL 207 Introduction to Political Thought  
PFL 307 Classical Political Philosophy  
PFL 308 Modern Political Philosophy  
RLS 101 Comparative Religion  
RLS 200 Contemporary Religion in the United States  
RLS 300 Hebrew Bible/Old Testament  
RLS 302 New Testament  
RLS 332 Religions of the World  
SOC 321 Individuality and Society  
SOC 420 Critical Theory  

Cultural Diversity and Social Forces (CD & SF)  
6 semester hours, including at least one SF course, chosen from  
Cultural Diversity (CD)  
COM 315 Intercultural Communication Theory  
COM 386 Media, Race, and Gender  
ENG 130 Intro. to Native American Literatures  
ETE 280 Exploring Diversity: Learners, Families, and Communities  
PSY 300 Psychology of Women  
SOC 302 Sociology of Diversity  
SOC 313 Race, Ethnicity, and Power  
SOC 314 Native Americans  
SOC 315 Gender and Society  
WMS 200 Introduction to Women's Studies  

Social Forces (SF)  
ECO 100 Introduction to Economics  
ECO 221 Principles of Microeconomics  
ECO 222 Principles of Macroeconomics  
ETE 115 Schools and Schooling in American Society  
FCS 300 Consumer Issues in America  
FIN 220 Personal Finance  
HIS 311 History of American Political Economy  
HIS 326 Modern Military Forces and Institutions  
HIS 340 Contemporary Europe  
HIS 385 Science, Technology, and Society  
IS 100 Contemporary World Forces  
IS 275 Problems of the Developing World  
IS 306 Intelligence in International Affairs  
IS 312 U.S. Foreign Policy  
PLS 105 Introduction to American Government  
PLS 205 Introduction to Comparative Politics  
PLS 208 Fundamentals of International Relations  
PLS 360 Judicial Politics  
PSY 104 Principles of Psychology: Social Forces and Individual Behavior  
RLS 320 Muslim-Christian Relations  
RLS 321 Islam and the West: Clash of Civilizations?  
SOC 100 The Sociological Perspective  
SOC 312 Social Inequality  
SOC 313 Race, Ethnicity, and Power  
SOC 315 Gender and Society  
SOC 325 Science, Technology, and Modernity  
SOC 326 Sociology of Globalization  
WMS 200 Introduction to Women's Studies  

Science and Technology (FS and TS)  
6 semester hours, including at least 3 semester hours of FS, chosen from Fundamental Concepts in Science (FS)  
Fundamental Concepts in Science (FS)  
BIO 121 Life Science I  
BIO 122 Life Science II  
BIO 125 Life Science I (lab)  
BIO 126 Life Science II (lab)  

ENG 130 may be used to satisfy either the NW or CD requirement, but not both concurrently.
Requirements for the B.A. Degree

All candidates for the Bachelor of Arts degree must present credit for two years of college-level foreign language or its equivalent. This requirement may be met by the completion of a 202 or 300-level course or by transfer of similar credits from another institution or by a proficiency examination. Students with four units of high school language must successfully complete a 202 or 300-level course or satisfy this requirement by a proficiency examination in order to receive the Bachelor of Arts degree.

Students who have taken a foreign language in high school and wish to continue studies in the same language will be required to take a placement examination to assure placement at the proper college level.

Grade point Average for Graduation

A minimum cumulative grade point average of 2.00 based upon hours taken at Bradley is required for graduation.

Requirements for the B.S. Degree

In order to receive the Bachelor of Science degree, students must successfully complete at least 6 hours of courses selected from physical and natural science, mathematics, computer science, statistics, or quantitative methods in addition to the hours used to fulfill the University general education requirements. The following courses may be used to fulfill the additional 6-hour requirement for the B.S. degree—all courses in astronomy, biology, chemistry, computer science, geological sciences, physics, mathematics (except MTH 109), technical mathematics, and, in addition, these courses: BMA 372, ECO 319, FCS 303, PSY 415, PSY 536, QM 262, QM 263, and SCI 101.

Majors, Concentrations, and Minors

Major

A major is a coherent, structured course of study, defined by departments and selected by students as their principal subject area.

Generally, the major is comprised of courses offered and required by the department, but it may also include designated courses from other departments offering related subjects. All students must fulfill the requirements for at least one major in order to graduate.

In addition to courses used to satisfy the general education requirements, students must successfully complete a minimum of 24 semester hours of courses designated by the department as acceptable toward the major.

The major must include no fewer than 12 semester hours at the 300 (junior) level or above.

Students must achieve a minimum grade point average in courses in the major of no less than 2.0 in order to graduate.

Multiple majors must include at least 18 semester hours of courses not used in satisfaction of requirements for any other major.

Concentration

The concentration must be a coherent, structured course of study. It is comprised of no fewer than 12 semester hours of the minimum 24 semester hours required for the major. No fewer than 6 semester hours must be in courses at the 300 level or above. To qualify for more than one concentration within one major, no fewer than nine semester hours must be in different courses in each concentration.

Minor

The minor must be coherent, structured course of study. A minor is comprised of no fewer than 15 semester hours, a majority of which are at the 200 (sophomore) level or above with no fewer than 6 semester hours at the 300 (junior) level or above.

Students must achieve a minimum grade point average of 2.0 in courses in the minor for official designation as a minor.
Declaration of Minor
Students declaring a minor must report to the advisor in their major field to notify that advisor of their intent to seek a minor. After obtaining the signature of the advisor in their major field, the form is presented to the advisor for the intended minor for that advisor's approval. The student then presents the form to the dean of the college of the intended minor who forwards this form to the Registrar for official entry to the student's permanent scholastic record.

Requirements
Requirements for majors and for minors are specified in the catalog under each curriculum offering them. Students may graduate with a single major or a number of majors and minors when the requirements of each, including all college and department requirements, are met at the time of graduation.

Students may, with the approval of the dean of the college offering the work, complete additional majors or minors after graduation and have the completion and date noted on the permanent scholastic record.

Requirements for Two Baccalaureate Degrees
Students seeking two baccalaureate degrees from Bradley University may qualify for both degrees by meeting the specific requirements for each and presenting residence hours totaling thirty beyond the degree demanding the larger number of semester hours. The degrees may be earned consecutively or concurrently.

Grades
Grades in individual courses should reflect achievement in the subject matter in accordance with the standards of the course. Instructors shall inform students of standards for the course, the basis for judgment in grading, and the weight of each criterion in the assessment of the final grade. The standards of grading shall remain constant throughout the semester.

Students have the right to know where they stand in each course at periodic intervals throughout the semester. Any work submitted for evaluation should be assessed and returned promptly.

Incomplete
"IN" is the symbol used when the instructor lacks sufficient evidence to award a letter grade. The purpose of an "IN" is to provide the time necessary for a student to complete course work which, through no fault of the student's, was not completed in the normal time allowed. Reasonable time necessary for completion is decided by the student and the faculty member teaching the course. The "IN", once assigned, remains on the official academic record upon conversion to a grade or permanent "I".

The "IN" should not be mistakenly considered as an incentive for the faculty to recommend or for students to believe that this extension permits students merely to retake courses, or to extend the time for the completion of the prescribed work beyond the end of the semester of enrollment, as the means of removing the "Incomplete."

For undergraduates, at the time the "IN" is assigned, the instructor must file with his or her director or department chair a copy of the contract specifying what must be done to complete the "IN" and the date by which the "IN" must be converted. For undergraduates, an "IN" must be converted not later than four weeks before the end of the next regular semester in which the student is enrolled or the Registrar will record a permanent "I". If the instructor does not submit a letter grade by the specified deadline, the "I" will remain permanently upon the student's record and may not thereafter be removed. Under unusual circumstances, the student may be granted an extension to the end of the semester with the approval of the instructor involved, provided that the request was received prior to the normal deadline for the removal of Incompletes.

Grade point System
The grading system of the University for undergraduate students is based on the following:

<table>
<thead>
<tr>
<th>Marks</th>
<th>Honor points per semester hour</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>High competence</td>
</tr>
<tr>
<td>B</td>
<td>Competence</td>
</tr>
<tr>
<td>C</td>
<td>Minimum competence</td>
</tr>
<tr>
<td>D</td>
<td>Limited or incomplete competence</td>
</tr>
<tr>
<td>F</td>
<td>Inadequate competence for credit</td>
</tr>
<tr>
<td>IN</td>
<td>Instructor lacks sufficient evidence to award a letter grade</td>
</tr>
<tr>
<td>IP</td>
<td>Work in progress. Graduate level and certain approved undergraduate courses. Research work (theses, reading courses, special research problems) carried over more than one semester.</td>
</tr>
<tr>
<td>I</td>
<td>Permanent Incomplete</td>
</tr>
<tr>
<td>P</td>
<td>Pass – certain courses approved for Pass/Fail.</td>
</tr>
<tr>
<td>S</td>
<td>Satisfactory</td>
</tr>
<tr>
<td>U</td>
<td>Unsatisfactory</td>
</tr>
<tr>
<td>W</td>
<td>Official withdrawal</td>
</tr>
<tr>
<td>X</td>
<td>Audit</td>
</tr>
<tr>
<td>UX</td>
<td>Unsatisfactory audit</td>
</tr>
</tbody>
</table>

Grade point average is determined by dividing honor points by semester hours.

Only work registered through Bradley University is used in calculation of grade point averages. Courses which are taken for audit are assigned no grade nor honor points and are not entered on the student's permanent record. P, IN, IP, and W's are not considered in calculating the grade point average. For repeated courses, the last grade and credits earned shall be the only ones used in the calculation of grade point averages. Credit earned by proficiency examination is not used in the calculation of grade point averages.
Mid-Term Grades
A report of mid-term grades is prepared for all undergraduate students shortly after the midpoint of the fall and spring semesters. All students have electronic access to their mid-term grades.

Mid-term grades are provided only to give students an indication of their progress and are not officially recorded on permanent records.

Final Grades
Final grades will be issued for each class in which a student is officially registered. A report of these final grades will be posted on Webster, the online information system, by the Office of the Registrar within a very short time following the close of the semester. All challenges to final grades must be made in the next regular semester after the grade was awarded. All completed grade change request forms must be submitted to the dean of the college in which the course is offered no later than four weeks before the end of the next regular semester.

Academic Ombudsman
The Academic Ombudsman, a faculty member to whom students may bring complaints about teaching, operates under the following conditions. The Ombudsman will have a purely communicative function. If, after discussing the complaint with the Ombudsman, the student desires, the Ombudsman shall communicate the nature of the complaint to the instructor involved. Then, if the student thinks an insufficient corrective effort has been made, the student may discuss the matter with the Ombudsman and request that the complaint be forwarded to the instructor’s department chair. The Ombudsman shall regard all information received by virtue of the position as absolutely confidential, except as provided in this statement. Students who do not choose to use the services of the Ombudsman can use the process of administrative appeal, starting first with the instructor, then the instructor’s department chair, the dean, and finally the Provost and Vice President for Academic Affairs. Complaints should be resolved at the lowest level.

Undergraduate Scholastic Probation, Dismissal and Forgiveness Policies
Scholastic Probation
A minimum cumulative grade point average of 2.00 based on grades at Bradley University is required for graduation. Students must maintain this minimum grade point average each semester in order to remain in good standing.

A student whose cumulative grade point average is less than 2.00 will be enrolled on probation for the next semester. Students on probation will be unable to register for January Interim or May Interim during early registration. A student on probation who does not achieve either a cumulative grade point average of 2.00 or a semester grade point average of 2.25 at the end of the semester will be dismissed. If a student on probation does not enroll in the next regular semester (fall or spring), the student must apply for readmission and all academic records will be subject to evaluation. A student who enrolls on probation is urged to see his or her academic advisor who will review the academic program of the student and recommend a course of study. For students enrolled at Bradley on probation, participation in the Turning Point Program is recommended, and in most cases, required. (See below.)

A student’s probationary status will be changed to “good standing” as soon as the student’s cumulative grade point reaches 2.00 or higher.

Summer school and interim terms will not be counted as probationary, but grades earned will be computed in the student’s cumulative grade point average.

Turning Point Program
The Turning Point Program, an academic support service offered through the Center for Learning Assistance, is required for all undergraduate students on academic probation for the first time and reinstated students as recommended by the Academic Review Board. When final semester grades are processed, students are notified in writing about being automatically enrolled in the Turning Point Program.

Scholastic Dismissal
A student enrolled on probation who does not achieve either a cumulative grade point average of 2.00 or a semester grade point average of 2.25 at the end of the semester will be dismissed.

Once dismissed, the student will not be allowed to attend any class offered by Bradley University for college credit, including any interim, summer session, or continuing education class, without reinstatement. There are no reinstatements for the interim session immediately following dismissal. Apply for reinstatement with the Academic Review Board. In special cases, the academic dean may grant permission to enroll in summer sessions immediately following dismissal. A student’s enrollment will be canceled as a result of academic dismissal if there is no reinstatement by the Academic Review Board.

Petitions for Scholastic Reinstatement
Any student dismissed for poor scholarship has the right of appeal for reinstatement. A student should not expect to be reinstated until after one full regular semester has intervened. Petitions for reinstatement should be directed to the Academic Review Board.

Academic Forgiveness Policy
To qualify for the Academic Forgiveness Policy, students must not have been enrolled in a Bradley degree program for at least five years.

Persons who wish to be readmitted to Bradley University under the Academic Forgiveness Policy must petition the Academic Review Board and request forgiveness of previous grades earned at Bradley. If the petition is approved, grades
for all Bradley courses taken before the hiatus of five or more years will be removed from the GPA calculation. Students will retain credit for those courses with grades of “C” or better, whether the credit was taken in residence at Bradley or from another source.

The forgiven grades shall not count in determining the student’s grade point average for academic probation or dismissal or for graduation; however, they shall remain on the transcript with an appropriate notation, and shall be used in determining graduation honors.

Forgiveness is a one-time option which is final and irreversible once granted.

**Academic Review Board**
The Academic Review Board is authorized to act upon petitions of reinstatement of undergraduate students dismissed for poor scholarship. This board also considers petitions for Academic Forgiveness and waivers of graduation regulations.

**Dismissal for Other Causes**
Students found guilty of a breach of academic integrity (plagiarism, cheating, unauthorized use of University computers, etc.) are subject to disciplinary action, including dismissal from the University.

It is the responsibility of the faculty member to report to the Executive Director of the Center for Residential Living and Leadership any occurrences of breaches of academic integrity and the penalties assigned to the student. Specific procedures for doing so and the appropriate penalties are published in the Faculty and Student Handbooks.

In addition to breaches of academic integrity, students whose actions are considered detrimental to the best interest of the University may be dismissed from the University upon recommendation of the administration, the faculty, or the appropriate University committee. Such actions are specifically described in the University’s Student Handbook.

**Breach of Academic Integrity**
According to Senate rules, all occasions of academic dishonesty must be reported to the Executive Director of Residential Life and Leadership, together with a statement of the penalty imposed by the faculty member. If, in the opinion of the Executive Director of Residential Life and Leadership, other problems of a personal or an emotional nature are present, a referral to the Center for Student Health Services will be made.

**Cheating**
Cheating is officially defined as giving or attempting to give, or obtaining or attempting to obtain, information relative to an examination or other work that the student is expected to do alone and not in collaboration with others, or the use of material or information restricted by the instructor. Each instructor will indicate beforehand work that may be done in collaboration with other students.

Examples of cheating include but are not limited to copying from another person during an examination, using materials not allowed by the instructor during an examination, collaboration on a take-home examination or other assignments where it has been expressly prohibited by the instructor, and the submission of a laboratory report based on data not obtained by the student in the manner indicated by the instructor. The person who provides illicit information is liable to the same punishment as the person who receives and uses it.

A “Zero,” or whatever is the equivalent of the lowest failing grade possible, shall be assigned for that piece of work to any student cheating on a non-final examination or other class assignment.

A “Zero,” or whatever is the equivalent of the lowest failing grade possible, shall be assigned on a final examination to any student cheating on a final examination. An “F” shall also be assigned as the course grade to any student cheating on a comprehensive final examination.

**Plagiarism**
Plagiarism is no lesser an offense than cheating. Examples of plagiarism as stated in *The Modern Language Association's MLA Handbook for Writers of Research Papers* include but are not limited to repeating another's sentences as your own, adopting a particularly apt phrase as your own, paraphrasing someone else's argument as your own, and presenting someone else's line of thinking in the development of a thesis as though it were your own.

A “Zero,” or whatever is the equivalent of the lowest failing grade possible, shall be assigned for that piece of work to any student plagiarizing on a non-final piece of work in the case of a student plagiarizing on a final research paper or project, an “F” shall also be assigned as the course grade.

**Repeated Offenses of Plagiarism and Cheating**
For repeated or aggravated offenses of cheating and plagiarism, additional action, including dismissal from the University, may be taken pursuant to the Student Handbook procedures related to the University Judicial System and the disciplinary sanctions for violation of University regulations.

**Other Breaches of Academic Integrity**
Other examples of what might constitute a breach of academic integrity include, but are not limited to, the following: bribes, favors or threats with the intent of influencing a grade or any other evaluation of academic performance; taking an examination for another student; and grade tampering.

**Grievance Procedure**
If the student objects to the instructor’s conclusion that a breach of academic integrity has occurred, the student may consult the University Ombudsmen and/or appeal the instructor’s conclusion through the instructor’s department chair to the Dean or to the Dean’s designee(s) of the college in which the course is offered, within 20 days of the time that the student receives written notification of the instructor’s conclusion. A copy of the notification will be filed with the Director of Residential Life and Student Ju-
Graduation

Responsibility for Graduation Requirements

Every candidate for a degree is personally responsible for meeting all requirements for graduation. No University official can relieve the student of this responsibility.

Application for Graduation

Seniors who plan to receive a baccalaureate degree in December should make application for graduation at registration time for the fall semester, or no later than the end of the first full week of classes in the fall semester. Candidates for the baccalaureate degree in May should make application at registration time for the spring semester, or no later than the end of the first full week of classes in the spring semester. Students can apply for graduation online via Webster (webster.bradley.edu). In addition, application forms are available in the Registrar’s Office and online at bradley.edu/registrar/graduation. Completed undergraduate applications must be filed in the Registrar’s Office.

If a student fails to complete the requirements at the time stated on the application for graduation, reapplication must be made for a later date.

Completion of Degree Requirements

Students who maintain continuous enrollment and who complete work toward the baccalaureate degree within five years from the date of entry may graduate under either the catalog in effect at the time of entrance or under the catalog in effect at the time of graduation. A change in major could mean meeting new requirements in force at the time of the change as a condition for acceptance into that major. Students whose work has been interrupted for one or more semesters may be held to requirements in effect at the time of their re-enrollment.

Candidates for a degree must meet all-University requirements and requirements in the curriculum for which they have applied. The deans of the colleges give final approval for graduation and recommend the candidates for the degree. Therefore, questions concerning degree requirements should be directed to the college deans.

Students electing to take courses at another accredited institution to meet Bradley graduation requirements must obtain prior written approval of their dean. An official transcript covering this coursework must be received by the Bradley University Registrar’s Office no later than two weeks after the end of the Bradley semester.

The grades of all work needed to fulfill the graduation requirements, whether earned through residence at Bradley or on another campus, must be completed and received by the Registrar’s Office no later than two weeks after the end of the Bradley semester.

Note the University regulations concerning incompletes and their removal deadline earlier in this catalog. Incomplete grades must be resolved prior to the degree being awarded.

Attendance at Commencement

Commencement is held following the end of each regular semester. All candidates for the degree whose names appear on the tentative list of candidates posted one month prior to the commencement may attend the commencement ceremony.

Students may participate in Commencement if they have proof of registration for the work which will complete the requirements for the degree. If some coursework is being transferred, proof of registration from the Registrar of the other institution must be received by the end of the third full week of classes.

Students who have degree requirements remaining may apply for permission to participate in a particular commencement if the following conditions are met: the remaining degree requirements do not exceed two courses and/or required practical experiences; and it must be possible for the student to complete the remaining degree requirements during the interim and/or summer session immediately following the commencement. Formal requests for permission must be filed with your college dean. The actual date of the degree would be the next official graduation date immediately following the completion of degree requirements.

Awarding of Diplomas

Diplomas will be awarded at the end of the Fall, Spring, and Summer terms, whichever date follows the completion of all of the requirements for the degree, and will bear that date. Diplomas will be awarded only to students completing all degree requirements.

Honors

Cum Laude, Magna Cum Laude, Summa Cum Laude

By commencement honors, Bradley University recognizes a student’s superior scholastic achievement. Evidence of achievement is shown by the student’s grade point average (GPA).

To be awarded special honors at Commencement, a student must have earned or be registered for a minimum of 60 semester hours in residence at Bradley University.
A student will be awarded Commencement Honors according to the following standard:

3.40-3.59 Cum Laude
3.60-3.79 Magna Cum Laude
3.80-4.00 Summa Cum Laude

For recognition at Honors Day and at Commencement, the computation of the Honors designation earned by GPA shall be made on the basis of cumulative GPA and hours completed at the end of the semester immediately preceding graduation (normally after seven semesters of work). The computation of the GPA for Honors designation on the student’s permanent record and diploma shall be made on the basis of all work completed at Bradley University at the time of graduation.

Students who have successfully completed the requirements of the University Honors Program will be recognized for this achievement by a separate certificate.

Dean’s List
Those full-time students who earn a semester GPA of 3.5 or higher on a 4.0 grading scale are given the distinction of being placed on the University’s Dean’s list for their outstanding scholastic achievement.

University Student Grievance Policy
A student academic grievance is appropriate in cases in which the student claims unfair, prejudicial, or capricious evaluation or treatment of an academic nature. A grievance is not appropriate on actions which would impair the exercise of academic freedom. A student non-academic grievance is appropriate in cases involving access to and participation in course offerings, sexual harassment, racial discrimination, or any other act by a University faculty member that is derogatory or discriminatory in nature. No student may pursue the formal part of the following grievance procedure before exhausting all informal procedures. What follows does not preclude a faculty member’s appeal to the Faculty Grievance Committee.

The grievance process is intended to deal with matters as expeditiously as possible. Although the times listed below are recommended guidelines for handling the steps of the process, it is expected that they will not be exceeded except under compelling circumstances.

A student who claims grievance as described may consult with the Ombudsman or meet directly with the instructor involved. The grievance process is as follows:

1. Informal Procedure
   a. The student shall meet with the instructor in an attempt to resolve the issue within 15 days on a non-academic grievance and normally within 15 days of the beginning of the next semester on an academic grievance. (The student may consult with the Ombudsman.)
   b. Should the issue not be resolved to mutual satisfaction, the student may, within five days, appeal an academic matter to the Chair of the given Department who shall provide the student and faculty member with a decision within five days of appeal, or appeal a non-academic matter to the office of the Associate Provost for Student Affairs, who will attempt to resolve the matter within 10 working days from the time of appeal. In cases involving a conflict of interest with the Associate Provost for Student Affairs, the student may appeal a non-academic matter to the Provost and Vice President for Academic Affairs. If any unfair or unjustifiable injury or disadvantage occurred, the decision shall include specific remedies to rectify the situation.
   c. Should an academic issue not be resolved to the satisfaction of the parties, the student or faculty member may, within five days, appeal the decision of the Chair to the Dean(s) of the College(s) in which the given academic concern resides and to the Dean of the Graduate School if a graduate student is involved. This appeal shall specify in writing the alleged grievance. The Dean(s) or Dean(s)’ designee(s) should meet with the relevant parties within five days of the appeal. The Dean shall deliver a decision within five days after said meeting. If any unfair or unjustifiable injury or disadvantage occurred, the Dean’s decision shall include specific remedies to rectify it.

2. Formal Procedure
   Should the issue not be resolved to the satisfaction of the parties, the student or faculty member may, within five days of the final written decision above, initiate the formal phase of the grievance procedure by written appeal to the Chairperson of the University Student Grievance Committee. Legal counsel may be used by the parties at the parties’ cost, as part of the formal procedure. Legal counsel for either party shall act in an advisory capacity only and not be permitted to speak on behalf of any party. The Committee shall have access to the University attorney on procedural matters.
   a. The Student Grievance Committee shall accept for hearing only those cases considered grievances as described above.
   b. The Student Grievance Committee shall meet at the call of the Chairperson upon receipt of a formal grievance. The Chairperson will:
      1) Obtain written statements from all parties involved in the appeal.
      2) Call for a meeting of the Committee to review the statements from the parties involved within 10 days of submission of the appeal, unless extraordinary circumstances require a delay, and determine a date and time for the hearing.

The Committee will:
   3) Notify all parties of the time, date, and place of the hearing at least five days in advance.
   4) Call on other faculty, staff, and students if it would serve the purposes of due process.
5) Retain records of all written matters dealing with each case.

6) If the committee decides that a grievance is not in order and the alleged grievance concerned discrimination, a copy of the minutes of the meeting will be sent to the Affirmative Action Officer.

c. The Committee shall submit its findings and decision to the appropriate academic officer for review within 45 days after the matter has been formally submitted to the Committee. This time period shall not include University holidays and times when the faculty are not under contract such as during the summer. If the Committee finds that unfair or unjustifiable injury or disadvantage has occurred, it shall forward to the appropriate academic officer its specific suggestions for rectifying it. The appropriate academic officer, within 30 days of the receipt of the findings and recommendations of the Committee, shall notify all concerned parties of agreement or disagreement with the Committee’s decision, stating the reasons in writing. Upon agreement of the parties, the grievance process can be concluded at any time before notification by the appropriate academic officer.

d. In cases where there are findings of unfair or unjustifiable treatment of students in a non-academic matter, the Associate Provost for Student Affairs is responsible for rectifying the situation per the Committee’s findings.

Miscellaneous University Regulations

Absences
This is the all-University policy regarding absences. Consult the policy of your own college or department for further details.

Every student is expected to attend all classes regularly. Each student is responsible for all work contained in the course, even in case of absences caused by circumstances beyond the control of the student. In case of absence, provision for make-up work, insofar as make-up work is possible, may be made by the instructor if acceptable reason for the absence is presented.

The grade in any given course will therefore ordinarily depend upon the amount and quality of the work done in the course. Absence will affect the grade insofar as the quality of work is affected. Reasons for absences are presented to the instructor by the student.

Change of College or Curriculum
Changes of a student’s major must be initiated with the academic advisor in the student’s current major field. A list of these advisors is found in the front of the Schedule of Classes.

After the form has been completed by the academic advisor, the student should take the form to the dean of the college in which the student was registered for the dean’s signature. The student obtains the signature of the advisor in the new major field, and then takes the form to the dean of the college to which the student is transferring and leaves the form with the new dean. If the change does not involve a change of college (merely a change of curriculum within the same college) the dean of that college will retain and process the form.

Change of Address
Students should report promptly to the Registrar’s Office in Swords Hall any change of address whether this change involves the student’s campus address, permanent mailing address, or parents’ address.

All addresses for students not in residence halls can be changed online at http://webster.bradley.edu.

Transcript of Credits
A transcript of credits is an authentic copy or printout of the student’s academic record. No partial transcripts will be issued. Transcripts are released only on written request of the individual concerned. This order must be placed in person or by mail to the Registrar’s Office. No phone orders can be accepted. Bradley University has authorized the National Student Clearinghouse to provide transcript ordering at bradley.edu/registrar/transcripts.

A fee of $4.00 for each copy ordered is payable in advance for transcripts. No student who is indebted to the University in any way will be issued a transcript until the debt is cleared by the office concerned.

Bradley University does not issue nor certify copies of transcripts from other institutions.

Financial Obligation of the Student
No report of grades is sent for the student whose financial account with the University has not been settled in full, nor will the grades be available on the Web. Likewise no diploma, professional certificate, transcript of credit, or other information concerning academic record is given until the student’s account has been cleared.

Student Consumer Information
Federal regulations require universities to make student consumer information available to prospective and current students concerning: financial assistance information; institutional programs and policies; graduation rates; safety programs, policies, and crime statistics; athletic program participation rates and financial support data; and rights under Family Education Rights and Privacy Act. This information may be obtained by requesting the Student-Right-to-Know and Campus Security Act Compliance Report from Bradley University’s Office of University Relations at (309) 677-3164. Safety information and crime statistics are available online at bradley.edu/police/
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Foster College of Business Administration

All programs offered by the Foster College of Business Administration, Bradley University, are accredited by the AACSB International: The Association to Advance Collegiate Schools of Business.

Mission and Objectives
The Foster College of Business Administration is dedicated to teaching and learning. We prepare undergraduate and graduate students to meet the demands of a competitive business world and help executives and professionals to be outstanding leaders. Our commitment to excellence is demonstrated by:

- Business and Accounting programs that are accredited by AACSB International;
- Superior teaching and a dedication to scholarly research;
- Highly motivated students actively engaged in the learning process and prepared to meet the ethical challenges of the modern workplace;
- Rigorous academic programs enabled by technology and enriched by a set of global opportunities;
- Collaboration, teamwork, and a broad range of learning experiences that transform students' talents into the qualities needed for success;
- Business outreach that contributes to economic and social well being and that supports the learning and development needs of the business community.

Our mission derives from the faculty's sense of shared values and expectations, and is manifested in our objectives:

- To develop students who communicate effectively;
- To develop students who understand the business functions of organizations;
- To develop students who appreciate the theoretical bases of knowledge and apply their knowledge in diverse situations;
- To develop students who understand the behaviors of individuals, groups, and organizations;
- To develop students who understand the impact of ethnic and cultural diversity in the workplace;
- To develop students who have an appreciation for environmental and technological issues;
- To develop students who understand the influence of political, social, legal and regulatory issues;
- To develop students who are aware of their need for life-long learning;
- To develop students who understand the dynamic, global economic forces affecting all organizations;
- To provide students with opportunities for career-oriented experiences that will be valuable to them as they seek employment;
- To provide students with a high-quality general education program which forms the basis for all professional education;
- To stimulate and maintain an active program of scholarly activities including basic scholarship and instructional development, but primarily focused on applied scholarship among faculty and selected students in the functional disciplines of business and economics and to share the findings from this research with business, government, not-for-profit, and academic communities in a mutually reinforcing exchange;
- To maintain an interactive and cooperative relationship with other units of the University by:
  (a) serving on University-wide committees;
  (b) participating in interdisciplinary undergraduate and graduate programs where appropriate; and
  (c) providing and utilizing service courses and programs within resource constraints;
- To provide an environment of continuous, meaningful interaction with business, government, and not-for-profit organizations through training and professional development programs, consulting services, research, and general participation in community affairs and professional organizations; and
- To maintain and continue to develop an environment of meaningful interactions for College alumni through organized alumni associations and meetings.

Courses and Curricula
The courses and curricula of the Foster College of Business Administration are derived from the mission and objectives of the College. There are three categories of courses that enable the College to fulfill its mission: general education courses, College core courses, and courses in the major areas offered by the College.

We believe that a general education is critical for prepar-
ing students for business careers, and so business majors must participate in general education requirements. These requirements serve a number of purposes, among which are:

- To explore fundamental issues of human existence, and to help develop personal values.
- To provide an insight into the nature of intrapersonal and interpersonal relationships.
- To enhance the students’ creative and analytical capabilities.
- To develop the ability to communicate effectively.
- To develop an appreciation for diverse cultures and peoples.
- To ensure that students appreciate the importance of science and technology.
- To elucidate the development, role, and nature of business, government, and other societal institutions.

Fifty percent of the hours required for graduation must be taken outside the Foster College of Business Administration.

The second part of the curriculum is the common core of business courses required of all Foster College of Business Administration graduates. This core provides an understanding of the dynamics of the firm, introduces students to the business functions of organizations, develops an understanding of how business and society interact, and gives a view of policy-making in firms. The core curriculum strives to be integrative and stresses the dynamic interaction of the areas and functions of firms. The core curriculum, along with general education courses, helps to develop the analytical skills business professionals must have.

The third category of courses is derived from the College’s mission and objectives and consists of courses in the student’s major. Majors are offered in accounting, actuarial science-business, economics, finance, international business, management, management information systems, and marketing. Courses in the major help develop the abilities and skills necessary in entry-level jobs. These courses strive to provide a background that allows for maximum professional growth in whatever profession the student chooses.

Students who choose to double major in the Foster College of Business Administration must complete requirements for both majors and must have at least 18 unique hours in courses not used to fulfill the requirements of their first major. Students should consult their academic advisor.

Because knowledge, organizations, and societies are dynamic, the College stresses adaptability and flexibility. Students should anticipate that courses in the core curriculum and in the major will change and evolve as circumstances warrant.

There are a number of areas that are so important they are interwoven throughout the curriculum of the College. These areas include computer use, business ethics, international business, and an appreciation of the importance of diversity in the workplace. These areas are covered in a number of courses in the core curriculum and in courses in the various major areas.

Study in business, although highly structured, does allow for elective courses. All students in the College are assigned a faculty advisor. The advisor should be consulted regularly so that a coherent course of study may be developed.

The College also offers graduate study leading to the degree of Master of Business Administration (M.B.A.) and the M.S. in accounting.

Admissions and Transfer Requirements

1. Students interested in applying for admission to the Foster College of Business Administration must contact the Office of Undergraduate Admissions at Bradley University. All students must meet the university entrance requirements to be admitted to the college.

2. Students currently registered at Bradley University who are interested in declaring a major or minor in business need to contact the assistant to the dean.

3. Freshmen and transfer students who elect the AEP Program or a major in another college may change into the Foster College of Business Administration during their first year if they have met the entrance requirements of the College at the time of their admission to the university. Freshmen and transfer students who did not meet the Foster College of Business Administration admission requirements at the time of their entry into the University may change into the College after completing a minimum of 12 credit hours, earning a cumulative GPA of 2.00 and earning a 2.00 GPA in courses taken in the Foster College of Business Administration. Students must also meet specific departmental entrance requirements.

4. Students who are transferring from an AACSB-accredited school may transfer upper-level business courses for credit.

5. Junior/senior-level business core courses or courses required in a business major, taken on the freshman or sophomore level at another institution, will not transfer into the Foster College of Business Administration.

6. Business courses transferred from other institutions with the grade of “D” will not be accepted by the Foster College of Business Administration.

7. The legal environment of business and international business degree requirements may be satisfied by transfer students who have completed a legal environment or international business course at a college or university that is not AACSB accredited provided that the course has been approved for transfer credit by the Foster College of Business Administration. Once a student is enrolled at Bradley University, these courses may only be transferred to the Foster College of Business Administration from AACSB-accredited schools.

8. Approval For Off-Campus or Correspondence Study: Students electing to take courses at another accredited
institution to apply toward credit to meet graduation requirements assume the responsibility for the transferability of the credit. Students must get pre-approval from their department chair and dean of the college before enrolling in a course to be taken at another school. The student is also responsible for requesting an official transcript be sent to the Registrar’s Office once the course is completed.

Permission will be given to take junior/senior business or economics courses only at AACSB-accredited schools.

The appropriate form may be obtained in the Office of Undergraduate and Graduate Programs of the Foster College of Business Administration.

Graduation Requirements

A. Curriculum Requirements

Students who maintain continuous enrollment and who complete work toward the baccalaureate degree within five years from the date of entry may graduate under either the catalog in effect at the time of entrance or under the catalog in effect at the time of graduation. A change in major could mean meeting new requirements in force at the time of the change as a condition for acceptance into that major. Students whose work has been interrupted for one or more semesters may be held to requirements in effect at the time of their re-enrollment.

1. University Requirements

   a. General Education

      a1. Mathematics – MTH 115, Brief Calculus with Applications I. The courses offered by Bradley that will satisfy the Foster College of Business Administration mathematics requirements are:
         1. MTH 115, Brief Calculus with Applications I, or
         2. MTH 121, Calculus I.

      The second option, MTH 121, is slightly more rigorous, and should be selected by students with a strong background in math who are planning a career in one of the more quantitative areas of business or future graduate study.

      Math Placement – The specific math course sequence that must be taken by a student is determined on an individual basis. The program presented here is designed to accommodate the typical student; others will be advised of appropriate alternatives by their advisor. A student’s previous mathematical experience and performance on proficiency exams are used to establish an appropriate sequence. If a student has satisfied the entrance requirements and achieves an SAT math score over 580 or an ACT math score over 27, it is recommended that he or she enroll in MTH 121. Students who have satisfied entrance requirements and achieved an SAT math score over 480 or an ACT math score over 23 are eligible to enroll directly in MTH 115, but not in MTH 121. Students who do not meet these requirements may be admitted to the College with a math deficiency. They must take prerequisite courses as specified by the Mathematics Department. CLEP general mathematics credit will not be accepted in lieu of the required mathematics courses nor does the College grant any credit toward graduation for CLEP in mathematics. Students will not receive credit toward the required hours for graduation for Intermediate Algebra (MTH 100 at Bradley) or for math courses not requiring at least Intermediate Algebra as a prerequisite. Similarly these courses and CLEP mathematics will not be accepted for credit toward the general education requirement.

      a2. Social Forces requirement may be fulfilled by successfully completing ECO 221/222, which are required in the business core.

      a3. The remaining General Education courses are explained elsewhere in this catalog.

   b. Junior/Senior hours – 40

2. College Requirements – 50 hours

   a. College Core

      ATG 157 Accounting Principles – Financial................3
      ATG 158 Accounting Principles – Managerial...............3
      BUS 100 Contemporary Business.............................3
      BUS 210 Team Dynamics........................................1
      BUS 220 Career Planning Strategies..........................1
      ECO 221 Principles of Microeconomics......................3
      ECO 222 Principles of Macroeconomics......................3
      QM 262 Quantitative Analysis I..............................3
      QM 263 Quantitative Analysis II............................3
      BMA 342 Legal Environment of Business....................3
      BMA 352 Managing in Organizations.........................3
      BMA 353 Operations Management.............................3
      BMA 372 Management Information Systems..................3
      BMA 452 Strategic Management & Business Policy..........4
      Economics Junior/Senior Elective...........................3
      FIN 322 Business Finance....................................3
      IB 306 Introduction to International Business...............2
      MTG 315 Principles of Marketing............................3
      *BMA 172 Business Computer Skills & Applications ..1

   *Foster College of Business Administration students can demonstrate proficiency with commonly used
Minor in Business Administration

In order to serve non-business students interested in eventually obtaining an M.B.A., or who desire a limited background in business in order to facilitate their personal career plans, the Foster College of Business Administration offers a minor in Business Administration. The following requirements must be met:

- ATG 157, 158 Accounting Principles..................6
- ECO 221/100, 222 Principles of Economics........6
- QM 262 Quantitative Analysis I........................3
- FIN 322 Business Finance................................3
- BMA 342 Legal Environment of Business..........3
- BMA 352 Managing in Organizations...............3
- MTG 315 Principles of Marketing.....................3

Total Hours 27

Business minors must pass a computer proficiency examination in commonly used business software. Contact the Office of Undergraduate and Graduate Programs in the Foster College of Business Administration for details of proficiency testing.

Students must achieve a GPA of 2.0 (C) in the Foster College of Business Administration hours required in the minor.

Students must successfully complete at least the equivalent of MTH 115.

A minimum of 15 hours for the minor must be taken at Bradley University, including FIN 322, BMA 352, and MTG 315. Written approval must be obtained from the Dean of the Foster College of Business Administration prior to taking any business courses at another institution.

Students who elect to minor in Business Administration must declare their intention by completing the appropriate forms in the Office of Undergraduate and Graduate Programs of the Foster College of Business Administration. Students must have a declared major and minimum of a 2.0 grade point average. Students are strongly advised to complete this math requirement in their first two years.

Students who minor in Business Administration must meet the requirements for the minor in force at the time the minor is declared.

Students who desire to minor in business administration must be approved by the Dean of the Foster College of Business Administration prior to enrolling in the program. The Dean must also approve recording the completion of the minor on the transcript.

Transfer policies for minors are the same as those for majors. Please refer to Section 5 above.

Minor in Business Studies

The business studies minor incorporates basic courses from most fields of business, thereby giving non-business students an understanding of basic business theories and practices. The minor provides non-business students with a firm foundation in general business studies, thereby enhancing their attractiveness to prospective employers and preparing them for further professional studies.

The minor includes 21 semester hours, described below:

1. 15 hours required of all students: ATG 157, BMA 352, MTG 315, FIN 322, ECO 221 or 100
2. 6 hours of additional business course work is also required of all students. The following courses cannot be counted toward the 6 hours: BUS 201, BUS 220, BUS 301.
3. 12 of 21 hours used to satisfy the minor must be completed at Bradley.

Undecided Business Student Program – BUS-UBS

This program is limited to incoming freshmen who want to major in the Foster College of Business Administration but are undecided as to which curriculum to pursue. Students must meet admission requirements for entrance into the Foster College of Business Administration. A major must be
chosen upon completion of his/her second semester by completing the appropriate form available in the Office of Undergraduate and Graduate Programs of the Foster College of Business Administration.

**LAS MBA Program**

A special program has been designed to enable students majoring in any undergraduate program in the College of Liberal Arts and Sciences to also earn an M.B.A. in a minimum of five years, with carefully coordinated advising. Interested students should see the director of graduate programs in the Foster College of Business Administration their freshman year.

**Courses of Instruction**

Courses numbered 100 to 199 are primarily for freshmen; those numbered 200-299 are for sophomores; those numbered 300-499 are open only to juniors and seniors. Courses numbered 500-599 are open only to graduate students.

**Business Cooperative Education/Internship Program**

The College participates with employers in an optional Cooperative Education/Internship Program. Students either alternate periods of full-time study with full-time employment or have part-time employment while attending classes. The program provides academic- or career-related work experiences. To be eligible, the student must have sophomore standing and a 2.0 minimum overall grade point average at Bradley and in the Foster College of Business Administration. (See Cooperative Education/Internship.)

**Global Scholars Program**

Students enrolled in the Foster College of Business Administration have an opportunity to earn the designation of Global Scholar in recognition of achievement in global business studies. The FCBA Global Scholars designation may be earned in conjunction with any degree and major within the Foster College of Business Administration. Requirements of the Global Scholars Program do not add to total credits necessary for graduation.

Coursework for the Global Scholars Program has been designed to broaden student perspectives by providing enhanced preparation for careers in a global marketplace. Topics and issues taught both on the Bradley campus and in international environments will develop within students a capacity to assess international business opportunities and to understand business in the context of different cultures.

The Global Scholars Program provides:
- Recognition by the dean of the college and citation at the Foster College of Business Administration Honors Banquet
- Recognition on the student’s transcript as having achieved the Global Scholars designation
- Opportunity to study abroad as early as a student’s sophomore year with introductory study abroad programs in China or Mexico
- A program logo for student use on resumes and in Smith Career Center files
- Seminars with experienced international business leaders including the annual Foster College of Business Administration Chicago International Business Day
- Social interaction with guest speakers, Bradley alumni, and international students

**Program Requirements**

1. IB 101 International Intellectual and Cultural Events (preferably as a freshman)
2. One of the following Spring Semester Study Abroad Courses (preferably as a sophomore or junior)
   - IB 204 Business in Chinese Culture
   - IB 208 Business in Mexican Culture
3. IB 400 Topics in International Business
4. One of the following Economics courses
   - ECO/IB 390 International Monetary Economics
   - ECO/IB 391 International Trade
5. One semester of foreign language (any level)
6. Completion of an internationally focused course from Bradley’s General Education “Human Values” listing
7. Study Abroad: In addition to the IB 204 or 208 requirement, a student must also participate in a university- approved study abroad program for a minimum of 3 credit hours.
8. Maintain a 2.5 GPA overall

Full details of the FCBA Global Scholars Program are available at www.bradley.edu/fcba/gsp.
Course Descriptions

**BUS 100  Contemporary Business**  3 hrs.
Business in a changing society. Ethics & social responsibility; financing, production, and distribution of goods and services. Not open to students with junior/senior standing, unless written consent of the Foster College of Business Administration Dean's office.

**BUS 201  Cooperative Education/Internship in Business**  0-6 hrs.
Initial cooperative education or internship assignment. Credit applies to non-departmental Foster College of Business Administration electives. Pass/Fail. Repeatable to a combined total of six credit hours for BUS 201 and 301. Prerequisites: Sophomore standing in FCBA, 2.0 grade point average overall at Bradley and in FCBA, consent of FCBA Co-op and Internship coordinator and Co-op and Internship faculty advisor.

**BUS 202  Sophomore Business Practicum**  0 hrs.
Solving technically challenging problems with a near-term economic benefit. Pass/fail. Prerequisite: only for students approved for practicum by the Center for Business and Economic Research.

**BUS 210  Team Dynamics**  1 hr.
Complexities of team interactions and team work. Appropriate use and management of teams; practical strategies for functioning in team work arrangements. Pass/fail. Prerequisite: business major.

**BUS 220  Career Planning Strategies**  1 hr.
Prepares students for internship positions and employment after graduation; research career opportunities in business; and develops a systematic approach to employment planning. Pass/fail. Credit will not be given for both BUS 220 and ELH 301. Prerequisite: business major.

**BUS 301  Cooperative Education/Internship in Business**  0-6 hrs.
Continuation of cooperative education or internship experience. Credit applies to non-departmental Foster College of Business Administration electives. Pass/Fail. Repeatable to a combined total of six credit hours for BUS 201 and 301. Prerequisites: BUS 201, junior standing in FCBA, 2.0 grade point average overall at Bradley and in FCBA, consent of Co-op and Internship coordinator and Co-op and Internship faculty advisor.

**BUS 302  Junior Business Practicum**  0-3 hrs.
Solving technically challenging problems under faculty supervision, with a near-term economic benefit. May involve research in collaboration with FCBA faculty, for up to three hours credit. Repeatable to a combined total of three credit hours. Not eligible for cooperative education/internship credit. Elective credit toward major will only be granted with prior approval of a FCBA department chair or program director. Prerequisites: junior/senior standing; approval by the Center for Business and Economic Research and FCBA assistant to the dean for undergraduate programs.

The Turner Center for Entrepreneurship

The establishment of the Robert and Carolyn Turner Center for Entrepreneurship builds on the Foster College of Business Administration's historic strength in small business administration and family business. For nearly 30 years, the College has provided business training and technical assistance to start-up and existing businesses through counseling and training programs. The Turner Center brings together all of Bradley's educational, research, and related resources and services to help entrepreneurs and family businesses create more successful businesses and to teach entrepreneurship skills to students. Programs and services include:

- Bachelor's degree in entrepreneurship is offered through the Department of Business Management and Administration.
- Senior Consulting Project Program allows teams of senior-level business students to serve as consultants on business-related projects, including marketing research, international trade, e-business, and organizational and operational issues.
- Turner Center Lecture Series brings prominent entrepreneurs, authors, and academics to meet with students and speak to the campus community.
- Entrepreneurship practicums involve MBA/MSA students and faculty in conducting projects for local entrepreneurs.
- Services that assist area businesses include: International Trade Center, NAFTA Opportunity Center, Asia Trade Center, Family Business Forum, and Small Business Development Center.
- The Center for Business and Economic Research (CBER) is the premier provider of business indicator data for central Illinois.
Department of Accounting

FACULTY Professors Gillett (chair), Petravick, Raiborn; Professor and Executive in Residence Krull; Associate Professors Troutman, Wilcox; Assistant Professor Kerr; Temporary Instructors Johnson, Wayvon.

Accounting Major
The mission of the Department of Accounting is to prepare students for productive and satisfying careers. The highest priority of the department is to provide students with the knowledge and skills necessary to commence and continue their careers. Our undergraduate program meets the needs of students seeking accounting careers in private industry and the public sector and, additionally, lays the foundation for those seeking careers in public practice. Our Master of Science in Accounting program is designed both for students entering public practice and for experienced accountants desiring to further their education. Graduates should be productive, act ethically, and be responsible citizens in social and economic communities, which are becoming increasingly dynamic and interdependent.

Accounting is an extremely flexible major. Our students not only learn about accounting principles but also study business and technology concepts. This broad training opens diverse career paths. Many of our graduates accept positions with public accounting firms and corporations. However, an accounting degree will also allow movement into finance, information systems, management, or consulting positions. One recent graduate became part of a team that is designing a bank which will operate on the Internet. Other graduates go directly to consulting firms, designing and installing computer systems. After several years in traditional accounting positions, another alumnus started his own business, a bank that has grown to $100 million in assets in three years. An accounting degree helps a student look beyond the numbers to assist both people and businesses with shaping their financial futures.

To ensure that tomorrow’s professionals can meet the challenges of these new roles, many professional organizations have revised educational requirements. For example, nearly all states now or will require CPA exam candidates to have 150 hours of education. In response to these changes, the Department of Accounting has identified three paths to obtain at least 150 hours: (1) graduate with 150 undergraduate hours, (2) graduate with a Master of Science in Accounting, or (3) graduate with a Master of Business Administration. See the Graduate Catalog or the Foster College of Business Administration’s web site (bradley.edu/fcba) for information about the Master of Science in Accounting or the MBA.

The Department of Accounting also offers an integrated Bachelor’s (BS or BA) and Master of Science in Accounting (MSA) degree. In this integrated program (commonly referred to as a 3:2 program), students can take coursework after they have senior status and designate to which degree that coursework will apply. Courses can be used in only one degree, and only appropriate courses can be applied to the MSA. Combining pursuit of the BS or BA degree with the MSA degree offers students three major advantages: greater availability of financial aid, earlier guarantee of admission to the graduate program, and more flexibility in the sequencing of classes.

Admission to the 3:2 program is available when students are initially admitted to Bradley University or during their junior year. The Graduate Catalog provides a complete description of the 3:2 program’s requirements.

Whether a student is in the 3:2 program or not, to complete an undergraduate degree with a major in accounting, a student must earn 25 semester hours of accounting course credit beyond the Foster College of Business Administration’s requirement of ATG 157 and ATG 158.

Courses required for all accounting majors
(25 hours of accounting):
ATG 201 Accounting Principles—Accounting Techniques
ATG 204 Cost Accounting
ATG 301 Intermediate Accounting I
ATG 302 Intermediate Accounting II
ATG 383 Accounting Systems and Control
ATG 401 Advanced Accounting I
ATG 457 Auditing
ATG 477 Federal Taxes I
Accounting Elective (3 hours)

Courses which may be used to fulfill the remaining 3-semester-hour accounting elective
ATG 485 Special Topics in Accounting
ATG 501 Advanced Accounting II
ATG 514 Advanced Managerial Accounting
ATG 526 Fraud Examination
ATG 547 Internal Auditing
ATG 561 International Accounting Issues
ATG 583 Accounting Information Systems
ATG 585 Contemporary Issues in Accounting
ATG 590 Professional Accounting Problems
BMA 345 Law of Business

Accounting majors also must satisfy the following requirements:
1. A 2.0 GPA in all accounting courses beyond ATG 157, 158, and 201.
2. A minimum of 9 semester hours of upper-level accounting course work in residence.

Students are advised to seek and follow faculty recommendations concerning the selection of courses to meet their career objectives.

Suggested Course Sequencing
A recommended course sequence for accounting, Foster College of Business Administration, and basic skills courses is as follows. Elective courses should be chosen with care to ensure that the University general education and FCBA requirements are met. Accounting majors have very little opportunity for additional electives in business within the required 124 hours since 62 hours are required outside of FCBA (ECO 221, 222, QM 262, 263, and the junior ECO elective count as hours outside of FCBA). Please note that 6 hours of PSY and/or SOC are needed to fulfill the FCBA behavioral science requirement.

Freshman Year
Fall:
BUS 100 Contemporary Business .............................................3
ENG 101 English Composition .................................................3
General Education Courses .....................................................9
Complete BMA 172 / Competency Exam .................................1
................................................3
Spring:
ATG 157 Accounting Principles – Financial ...........................3
COM 103 The Oral Communication Process ..........................3
MTH 115 or 121 Calculus I .....................................................4
General Education Courses .....................................................6
................................................3
Sophomore Year
Fall:
ATG 158 Accounting Principles – Managerial ........................3
BUS 210 Team Dynamics ......................................................1
ECO 221 Principles of Microeconomics ..................................3
QM 262 Quantitative Analysis I .............................................3
General Education Courses .....................................................6
................................................3
Spring:
ATG 201 Accounting Principles – Accounting Techniques .........................................................1
ATG 204 Cost Accounting I .................................................3
ECO 222 Principles of Macroeconomics ..................................3
QM 263 Quantitative Analysis II ............................................3
General Education Courses .....................................................6
................................................3
Junior Year
Fall:
ATG 301 Intermediate Accounting I .......................................3
ATG 383 Accounting Systems and Control ............................3
BMA 352 Managing in Organizations ....................................3
FIN 322 Business Finance ...................................................3
MTG 315 Principles of Marketing ...........................................3
Junior/Senior Electives and Remaining General Education Requirements (outside the FCBA) .............1
................................................3
Spring:
ATG elective .................................................................3
ATG 302 Intermediate Accounting II .................................3
BMA 342 Legal Environment of Business ..........................3
BMA 372 Management Information Systems ........................3
BUS 220 Career Planning Strategies ..................................1
IB 306 Introduction to International Business ......................2
................................................3
Senior Year
Fall:
ATG 477 Federal Taxes I .......................................................3
ATG 457 Auditing .............................................................3
BMA 353 Operations Management ....................................3
ECO 300/400-level Elective ...............................................3
Junior/Senior Elective (outside the FCBA) or Remaining General Education Requirements .............3
................................................3
Spring:
ATG 401 Advanced Accounting I ...........................................3
BMA 452 Strategic Management & Business Policy ...............4
Junior/Senior Elective Classes ..............................................4
Junior/Senior Elective (outside the FCBA) or Remaining General Education Requirements .............3
................................................3
Junior/Senior Year Elective Courses
Structured Electives

Accounting Electives
(3-4 hours selected from the following courses. A maximum of 26 hours in accounting course credit above the College requirement (ATG 157 and ATG 158) may be used to satisfy graduation requirements. Students graduating with more than 124 hours may take additional accounting courses.)
BMA 345 Law of Business ..................................................3

Senior Year Elective Courses
ATG 485 Special Topics in Accounting ...............................1-3
ATG 501 Advanced Accounting II ......................................3
ATG 514 Advanced Managerial Accounting ..........................3
ATG 526 Fraud Examination ..............................................3
ATG 547 Internal Auditing ..................................................3
ATG 561 International Accounting Issues .............................3

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ATG 583 Accounting Information Systems ......................... 3
ATG 585 Contemporary Issues in Accounting .................... 3
ATG 590 Professional Accounting Problems .................. 3

Other electives/requirements
Junior/Senior Economics Elective Course .................... 3
ENG 300, 301, 304, 305, or 306 Advanced Writing .......... 3

Unstructured Elective Hours ......................................... 11
(At least 10 hours must be outside the Foster College of Business Administration.)

Additional Professional Preparation
Students majoring in accounting are permitted to use a maximum of 26 semester hours in accounting courses beyond the basic Foster College requirement (ATG 157 and ATG 158) to satisfy the 124-semester-hour graduation requirement. Many students, however, graduate with more than 124 semester hours. These students may take additional accounting credit hours in accounting elective courses.

Requirements for Professional Certification
The bachelor's degree provides the educational background for many entry-level accounting positions. Students with this degree will have the necessary educational requirements for the CMA and CIA exams. Students will also have earned 124 hours of the 150 hours needed to sit for the CPA exam in those states requiring 150 credit hours. Students may earn the remaining hours needed for the CPA exam by obtaining a Master of Science in Accounting degree or other graduate degree, such as a Master of Business Administration, or by taking additional undergraduate classes. Students should consult with their advisors and their State Boards of Accountancy for the exact requirements.

Student Organizations
Membership in the Bradley Accounting Club (BAC) is available to all accounting majors. This organization conducts a variety of social and educational activities uniting accounting students, faculty, and staff. Beta Alpha Psi, the national honorary accounting fraternity, strives to promote scholastic and professional achievement through lectures, career-oriented events, campus and community service, and social activities. A minimum GPA is required. See the Beta Alpha Psi advisor for information.

Internship and Co-op Programs
Opportunities are available for qualified students to obtain on-the-job experience in either industrial or public accounting through internship and co-op programs. The programs involve multiple work experiences and are generally started during the student’s sophomore or junior year. Students interested in the programs should contact the Foster College of Business Administration Co-op Coordinator as early as possible.

Course Descriptions
ATG 157 Accounting Principles – Financial 3 hrs.
Accounting as a system of communicating to owners, creditors, governmental bodies, and others the financial results of the operation of business entities. Concepts, theories, and conventions underlying measurement, processing of business activities, and reporting of the financial results of those activities.

ATG 158 Accounting Principles – Managerial 3 hrs.
Use of accounting data for internal managerial decision-making and analysis, including accounting for planning and control; relevant cost and contribution approaches to decisions; capital budgeting; quantitative techniques. Prerequisite: ATG 157.

ATG 201 Accounting Principles – Accounting Techniques 1 hr.
Procedures and systems of modern accounting through case studies. (Should be taken the semester immediately preceding ATG 301.) Prerequisite: ATG 158.

ATG 204 Cost Accounting 3 hrs.
Use of accounting data to: identify cost/managerial accounting concepts; explain cost functions, cost classifications, relevant costs, cost-volume profit analysis, and cost allocations. The use of accounting data for cost control, profit planning, operational and capital budgeting, performance evaluation, and managerial decision making. Prerequisite: ATG 158; BMA 172 or equivalent.

ATG 226 Introduction to Fraud Examination 1 hr.
Introduction to fraud covering the nature of fraud, who commits fraud and why, and basic fraud prevention and detection techniques. Prerequisites: ATG 157 or consent of the department chairperson.

ATG 301, 302 Intermediate Accounting 3 hrs. each
Theory and practice of accounting, emphasizing need for and use of accounting information in measuring and evaluating entity’s business income and financial status. Prerequisites for ATG 301: ATG 201 or consent of instructor; junior standing; 2.25 grade point average in all required accounting courses completed. Prerequisite for ATG 302: ATG 301.

ATG 383 Accounting Systems and Control 3 hrs.
Basic concepts and problems in the consideration of accounting as an information system. Theoretical and pragmatic tools for analysis of accounting systems. Internal control and exposure to concepts of internal auditing. Prerequisites: BMA 172 or equivalent; ATG 204; ATG 201 or consent of instructor and Department Chair; 2.25 grade point average in all required accounting courses completed.
ATG 401  Advanced Accounting I  3 hrs.
In-depth study of selected topics in financial accounting and reporting, including business combinations and consolidated financial statements; foreign currency transactions and consolidation of foreign affiliates; fund accounting principles applied to state and local governmental units and not-for-profit organizations; a survey of SEC reporting requirements; and selected FASB standards. Prerequisites: ATG 302.

ATG 457  Auditing  3 hrs.
Principles and procedures of external auditing. Auditing standards, ethics of the profession, risk assessment, internal control evaluation and testing, substantive testing, reporting. A simulated audit experience case performed by student teams. Prerequisites: ATG 302, 383; senior standing or consent of department chair.

ATG 477  Federal Taxes I  3 hrs.
Principles of federal income taxation, based upon the Internal Revenue Code. Measurement and reporting of taxable income of tax entities, including corporations, partnerships, and individuals. Prerequisites: ATG 302; or permission of instructor.

ATG 485  Special Topics in Accounting  1-3 hrs.
Topics of special interest which may vary each time course is offered. Topic stated in current Schedule of Classes. May be repeated for a maximum of three hours credit. Prerequisite: consent of Department Chair.

ATG 501  Advanced Accounting II  3 hrs.
In-depth application of accounting concepts, theories, and conventions to recording and reporting of problems arising from business combinations, branch operations, and business operations in foreign countries. Consolidated balance sheets, income statements, and retained earnings statements. Home office and branch accounting, foreign exchange, and foreign subsidiaries. Prerequisite: ATG 302.

ATG 514  Advanced Managerial Accounting  3 hrs.
Specialized topics in strategic cost management. Emphasis on the role of accounting information in strategy development and implementation. Includes topics such as value chain analysis, target costing, activity-based management, theory of constraints, environmental costing, and strategic performance evaluation. (Not open to students who have taken ATG 304 or ATG 614.) Prerequisites: ATG 301, 383.

ATG 526  Fraud Examination  3 hrs.
Techniques for identification and detection of asset misappropriation schemes and fraudulent financial statements. Controls to prevent and detect problems. (Not open to students who have taken ATG 585 as Fraud Examination.) Prerequisites: ATG 301, 383.

ATG 547  Internal Auditing  3 hrs.
Internal audit activity's role in governance, risk, and control. Professional practices framework. Establishing a risk-based plan, conducting the internal audit engagement, reporting results, monitoring engagement outcomes. Prerequisites: ATG 301 and ATG 383.

ATG 561  International Accounting Issues  3 hrs.
Significant accounting matters experienced by multinational companies. Accounting matters include currency transactions and translations, transfer pricing, management planning and control, and taxation. Prerequisites: ATG 302.

ATG 583  Accounting Information Systems  3 hrs.
Design and implementation of accounting information systems using database technologies. (Not open to students who have taken ATG 667.) Prerequisites: ATG 301, 383.

ATG 585  Contemporary Issues in Accounting  3 hrs.
Critical evaluation of concepts, assumptions, principles, and analytical methodologies of accounting and their application to factual situations. Asset valuation and income determination: implications for internal and external uses of accounting information in business decision making. Prerequisite: consent of Department Chair.

ATG 590  Professional Accounting Problems  3 hrs.
Update and expansion of core knowledge in accounting theory, practice, taxation, and auditing. Prerequisites: ATG 383; ATG 477 or ATG 677; or consent of instructor.
Department of Business Management and Administration

FACULTY Professors Buchko, Fink, Fry, Goitein, Perry, Stoner, Weinzimmer; Associate Professors Brown, McGowan (chair), Schmidt, Stephens; Assistant Professors Blair, Marcum, Nagy; Temporary Instructors Michel, Pape; Executive-in-Residence West.

The Department of Business Management and Administration curricula provide students with the educational experiences of reasoning, problem solving, and decision making so that they, through balanced programs, will be qualified to accept responsible positions in business and the public sector.

Specific departmental objectives include the following: (1) To give students the historical perspective necessary to understand the evolution of business in a global, social, political, economic, and technological environment; (2) To excite students about new ideas and knowledge; (3) To help students develop understanding and skill in the practice of management; (4) To provide students with a basic understanding of management, information technology, operations management, the legal environment of business, and strategic management; (5) To develop well-informed individuals who understand their ethical and social responsibilities in business situations; (6) To enable students to understand the operation of our business and economic systems; (7) To develop the ability to think clearly, analyze carefully, and express thoughts and conclusions logically; and (8) To help students develop competence in a major field of study.

Students enrolling in the Department of Business Management and Administration must select and complete the requirements for one of the following majors: (1) entrepreneurship, (2) management and administration or (3) management information services. Students majoring in management and administration may elect a concentration in human resource management or legal studies in business.

Entrepreneurship Major

The entrepreneurship major prepares students to own, manage, or work successfully in small and emerging businesses or to enhance their value in large organizations. Students learn how to research new product or service ideas, determine their feasibility, and develop business plans necessary to launch a business, a new product, or a new service. They develop the skills to operate a business once it is started, grow the business, and eventually sell it or pass it on to the next generation. The major helps students understand the functional areas of business and apply the theory to the unique situations found in small or growing ventures. Students with an entrepreneurship major are also prepared for careers in consulting or working within a family business setting. The objectives of the entrepreneurship major are to:

1. Introduce students to the nature of entrepreneurs and entrepreneurship.
2. Expose students to the excitement and challenges of owning one’s own business.
3. Develop the ability to analyze ideas for new products or services and determine their feasibility and commercialization potential.
4. Develop the ability to produce a well-designed and credible business plan to use in soliciting external funding.
5. Create an awareness of venture capital, public offerings, and other methods of financing high-growth ventures.
6. Develop the knowledge and skills needed to operate a business on a day-to-day basis.
7. Understand the uniqueness of the functional areas of business as they relate specifically to small and emerging businesses.
8. Provide opportunities for hands-on learning from emerging businesses through an optional entrepreneurship internship.

Requirements

Requirements for the entrepreneurship major are as follows:

BMA 382 Entrepreneurship
BMA 383 Small Business Management
BMA/FIN 384 Entrepreneurial Finance, or ATG 204 Cost Accounting
BMA 356 Human Resource Management
MTG 381 Integrated Marketing Communications, MTG 393 Retailing, or MTG 410 Services Marketing

Two of the following:

BMA 385 Technology Entrepreneurship
BMA 357 Leadership and Interpersonal Behavior
BMA 488 Internship in Entrepreneurship
BMA 489 Topics in Entrepreneurship

One of the following:

ECO 335 Managerial Economics
ECO 310 Labor Problems

Entrepreneurship majors must satisfactorily complete at least
15 hours of BMA-prefixed courses at Bradley University. Students should note that some courses are offered only once each year. Students should consult with their advisor to ensure that the correct courses are taken. The following sequence of courses is typical for students majoring in entrepreneurship.

**Freshman Year**

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>BUS 100 Contemporary Business</td>
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<tr>
<td>ENG 101 English Composition</td>
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<tr>
<td>COM 103 The Oral Communication Process</td>
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<tr>
<td>MTH 115 Brief Calculus with Applications I</td>
</tr>
<tr>
<td>ATG 157 Accounting Principles - Financial</td>
</tr>
<tr>
<td>PSY 104 Principles of Psychology</td>
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<tr>
<td>MTG 315 Principles of Marketing</td>
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</tbody>
</table>

General Education courses ..............................................3

Sophomore Year

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<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>ATG 158 Accounting Principles - Managerial</td>
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<tr>
<td>BUS 210 Team Dynamics</td>
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<tr>
<td>BUS 220 Career Planning Strategies</td>
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<tr>
<td>ECO 221, 222 Principles of Economics</td>
</tr>
<tr>
<td>QM 262, 263 Quantitative Analysis I and II</td>
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<tr>
<td>General Education, behavioral science, or elective courses outside FCBA</td>
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</tbody>
</table>

Junior Year

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<tr>
<th>Course</th>
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<tbody>
<tr>
<td>BMA 352 Managing in Organizations</td>
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<tr>
<td>BMA 342 Legal Environment of Business</td>
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<tr>
<td>MTG 315 Principles of Marketing</td>
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<tr>
<td>BMA 372 Management Information Systems</td>
</tr>
<tr>
<td>FIN 322 Business Finance</td>
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<tr>
<td>BMA 382 Entrepreneurship</td>
</tr>
<tr>
<td>BMA 383 Small Business Management</td>
</tr>
<tr>
<td>BMA 385 Technology Entrepreneurship</td>
</tr>
<tr>
<td>ENG 300, 301, 304, 305, or 306 Advanced Writing</td>
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<tr>
<td>General Education courses</td>
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Senior Year

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<tr>
<th>Course</th>
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<tbody>
<tr>
<td>BMA 356 Human Resource Management</td>
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<tr>
<td>MTG 381 Integrated Marketing Communications or MTG 393 Retailing, or MTG 410 Services Marketing</td>
</tr>
<tr>
<td>BMA/FIN 384 Entrepreneurial Finance or ATG 204 Cost Accounting</td>
</tr>
<tr>
<td>BMA 353 Operations Management</td>
</tr>
<tr>
<td>BMA 357 Leadership and Interpersonal Behavior</td>
</tr>
<tr>
<td>ECO 310 Labor Economics or ECO 335 Managerial Economics</td>
</tr>
<tr>
<td>IB 306 International Business</td>
</tr>
<tr>
<td>BMA 452 Strategic Management and Business Policy</td>
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<tr>
<td>Behavioral science or free electives outside FCBA</td>
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</tbody>
</table>

Senior Year

<table>
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<tr>
<th>Course</th>
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<tbody>
<tr>
<td>BMA 357 Leadership and Interpersonal Behavior*</td>
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<tr>
<td>BMA 358 Managerial Decision Making*</td>
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<tr>
<td>12. Twelve hours of BMA elective courses</td>
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</tbody>
</table>

Management and Administration Major

The management and administration major provides a solid grounding in the skills and concepts necessary to meet the complex and challenging tasks of management. The program concentrates on developing the decision-making, problem identification, problem-solving, and interpersonal skills essential for combining the organization’s resources to promote organizational effectiveness.

Students in the management and administration major are prepared for management positions in both industry and not-for-profit settings. In larger organizations, graduates typically expect to obtain entry-level management positions. Further, the major provides the background necessary to later advance to middle and upper-level management positions. In smaller firms, graduates may expect to enter middle or upper-level management positions. Students who are uncertain as to their career goals will find that the management and administration major provides excellent preparation in business for a wide range of job opportunities. Additionally, students are well prepared for graduate-level business (MBA, DBA, PhD) or public administration (MPA) programs, law school, and other graduate school programs.

**Departmental requirements for the management and administration major** are as follows:

1. BMA 356 Human Resource Management
2. BMA 357 Leadership and Interpersonal Behavior
3. BMA 358 Managerial Decision Making
4. Two hours of BMA elective courses

Students may choose from a broad array of courses to satisfy their elective requirements, or they may choose one of the following concentrations: human resource management or legal studies in business. The concentrations, each requiring fifteen to eighteen hours, can be completed with no more than one additional course beyond the required BMA elective credits. Courses marked with an asterisk (*) fulfill requirements elsewhere in either the major or the Foster College of Business Administration core curriculum. Department requirements have been included for clarity.

**Human Resource Management**

- BMA 355 Labor-Management Relations
- BMA 356 Human Resource Management
- BMA 357 Leadership and Interpersonal Behavior
- BMA 358 Managerial Decision Making
- BMA 446 Employment Law
- BMA 456 Compensation Management
- BMA 457 Human Resource Theory & Program Design
- ECO 310 Labor Problems
- PSY 310 Industrial & Organizational Psychology or PSY 411 Tests & Measurements

*Hour does not count toward 124 needed for graduation.
Legal Studies in Business
BMA 342 Legal Environment of Business*
BMA 345 Law of Business
BMA 356 Human Resource Management*
BMA 357 Leadership and Interpersonal Behavior*
BMA 358 Managerial Decision Making*
BMA 395 Real Estate Principles
BMA 446 Employment Law
and one of the following:
ECO 352 Industrial Organization*
ECO 362 Economics and Law*
PLS 317 International Law
PLS 459 Constitutional Law
PLS 460 Constitutional Law

Management and administration majors must satisfactorily complete at least 15 hours of BMA-prefixed courses at Bradley University. Students desiring concentrations should declare their intentions as early as possible and should consult with their advisor to ensure that the correct courses are taken. Students should also note that some courses are offered only once each year.

The following sequences of courses are recommended for students majoring in management and administration. Course sequences for freshman and sophomore years are similar regardless of any concentration selected.

Freshman Year
BUS 100 Contemporary Business ..............................................3
ENG 101 English Composition .................................................3
MTH 115 Brief Calculus with Applications I ..........................4
ATG 157 Accounting Principles – Financial ..............................3
COM 103 The Oral Communication Process ............................3
PSY 104 Principles of Psychology .............................................3
General Education Courses ..................................................12
1BMA 172/Competency Exam ...................................................1

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Sophomore Year
ATG 158 Accounting Principles – Managerial .......................3
BUS 210 Team Dynamics ......................................................1
ECO 221, 222 Principles of Economics ................................6
QM 262, 263 Quantitative Analysis I and II ..........................6
General Education, behavioral science, or elective course outside FCBA ..........15

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The remaining semesters will vary depending upon the concentration selected. Courses marked with * are required for the particular concentration listed.

Human Resource Management
Junior Year
Fall:
BMA 342 Legal Environment of Business .........................3
BMA 352 Managing in Organizations .................................3
FIN 322 Business Finance ..................................................3
MTG 315 Principles of Marketing .......................................3
PSY 310 Industrial & Organization Psychology* or
PSY 411 Tests & Measurements .....................................3

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Spring:
BMA 356 Human Resource Management* .......................3
BMA 357 Leadership and Interpersonal Behavior ..................3
BMA 372 Management Information Systems ....................3
BUS 220 Career Planning Strategies ..................................1
IB 306 Intro. to International Business ..........................2
ENG 300, 301, 304, 305, or 306 Advanced Writing ........3

15

Senior Year
Fall:
BMA 353 Operations Management ...................................3
BMA 355 Labor-Management Relations* .........................3
BMA 358 Managerial Decision Making* ............................3
ECO 310 Labor Problems* ...............................................3
BMA 457 Human Resource Theory & Program Design ....3

15

Spring:
BMA 446 Employment Law* ..............................................3
BMA 452 Strategic Management & Business Policy ........4
BMA 456 Compensation Management* ............................3
Free Electives (3 hours must be outside the college) ..........6

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Legal Studies in Business
Junior Year
Fall:
BMA 342 Legal Environment of Business .........................3
BMA 352 Managing in Organizations .................................3
FIN 322 Business Finance ..................................................3
MTG 315 Principles of Marketing .......................................3
Behavioral Science or free elective course ..................3

15

Spring:
BMA 345 Law of Business* ..............................................3
BMA 356 Human Resource Management .........................3
BMA 357 Leadership & Interpersonal Behavior ..................3
BMA 372 Management Information Systems ....................3
BUS 220 Career Planning Strategies ..................................1
ENG 300, 301, 304, 305, or 306 Advanced Writing ........3

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1Hour does not count toward 124 needed for graduation.
Management Information Systems Major

Management information systems (MIS) is an exciting field that combines people skills with technical skills. The MIS major blends the fields of business, computers, and information technology. It enables students to be successful in developing business applications using current technology where appropriate. Information is seen by business as an increasingly important resource. The MIS major teaches students how to manage this vital resource.

Graduates of the program can expect interesting and challenging job opportunities as the field changes. The MIS major can be a fast track to management positions or the basis for advanced graduate work. Typical graduates’ first jobs are in technical and information related fields or as consultants or programmers. After gaining experience, graduates develop new business applications as analysts and then assume management positions. This major prepares students for some of the nation’s fastest growing career opportunities such as systems analysis and programming.

The MIS major differs from other “computer” majors in its emphasis on human aspects and business applications. While knowledge of computer systems is a large part of the program, a larger portion is devoted to getting the right job done.

The major develops competence in a number of areas:
1. the use of personal computers, large computers, and other technological resources,
2. managing information technology to achieve the goals of the organization,
3. programming in a variety of languages used in business, and
4. the quantitative skills needed for problem solving and decision making.

Departmental requirements for the management information systems major are as follows:

- Three programming courses:
  BMA 276 Developing Info. Systems for E-commerce
  One of the following sequences:
  CS 106 & CS 121 or BMA 175 & BMA/CIS 275
- BMA 272 Management Applications of Personal Computers
- BMA 375 Business Systems Analysis and Design
- BMA 478 Implementing Business Computer Systems
- BMA 373 Business Data Communications or BMA 374 Database Management and Administration
- Two of the following:
  BMA 357 Leadership and Interpersonal Behavior
  BMA 373 Business Data Communications
  BMA 374 Database Management and Administration
  BMA 378 HCI & Usability Testing
  BMA 379 Information Security

A recommended course sequence for management information systems, Foster College of Business Administration, and general education courses follows. Management information systems
majors must satisfactorily complete at least 15 hours of BMA-prefixed courses at Bradley University. Elective courses should be chosen with care to ensure that University general education and Foster College of Business Administration requirements are met. Management information systems majors should consult with their advisor when preparing their academic schedules.

Freshman Year
ENG 101 English Composition .................................................. 3
BUS 100 Contemporary Business .............................................. 3
MTH 115 Brief Calculus with Applications I .............................. 4
ATG 157 Accounting Principles – Financial .............................. 3
COM 103 The Oral Communication Process .............................. 3
1BMA 172/Competency Exam ............................................... 1
BMA 276 Developing Info. Systems for E-commerce ............... 3
General Education Courses .................................................... 12

1Hour does not count toward 124 needed for graduation.

Sophomore Year
ATG 158 Accounting Principles – Managerial .......................... 3
ECO 221, 222 Principles of Economics .................................... 6
QM 262, 263 Quantitative Analysis I and II .............................. 6
BMA 272 Mgt. Applications of Personal Computers .............. 3
CS 106 Intro. to Programming or BMA/CIS 175 Intro. to Developing Business Applications ........................................... 3
CS 121 Intro. to Data Structures or BMA/CIS 275 Business Applications Using Visual Basic .............................. 3
BUS 210 Team Dynamics ....................................................... 1
General Education and Behavioral Science Courses ............. 6

Junior Year
ENG 300, 301, 304, 305, or 306 Advanced Writing ...................... 3
FIN 322 Business Finance ...................................................... 3
BMA 342 Legal Environment of Business ................................. 3
BMA 352 Managing in Organizations ...................................... 3
BMA 372 Management Information Systems .......................... 3
BMA 373 Business Data Communications or BMA 374
Database Management and Administration .......................... 3
BMA 375 Business Systems Analysis and Design ..................... 3
MTG 315 Principles of Marketing .......................................... 3
BUS 220 Career Planning Strategies ...................................... 1
General education, behavioral science, and free elective courses outside FCBA .................................................. 6

Senior Year
BMA 353 Operations Management ........................................... 3
Two courses from: BMA 357, 373, 374, 378 or 379 ...................... 6
BMA 452 Strategic Management and Business Policy .............. 4
BMA 478 Implementing Business Computer Systems ............... 3
Economics Junior-Senior Elective ........................................... 3
IB 306 International Business ................................................. 2
Free Elective Courses .......................................................... 9

Minors

Management Minor
The minor in management provides students with essential background, understanding, knowledge, and skill in the practice of management. The minor in management will provide students with foundations and skills to complement the focus area of their respective majors and, importantly, enhance personal career plans.

The minor is comprised of 15 semester hours of study. The 15-hour minor includes required management foundations (9 hours) and selected management electives (6 hours). The requirements for the minor are outlined below.

Students whose major is from the Foster College of Business Administration must have at least 12 hours in courses that are unique from those used to fulfill their major requirements.

Required Management Foundations:
BMA 352 Managing in Organizations ...................................... 3
BMA 356 Human Resource Management .................................. 3
BMA 357 Leadership and Interpersonal Behavior .................... 3

Elective Courses (Choose two from the following):
BMA 272 Mgmt. Applications of Personal Computers .............. 3
BMA 276 E-Commerce ....................................................... 3
BMA 315 Principles of Risk Management ................................ 3
BMA 342 The Legal Environment of Business ...................... 3
BMA 345 Law of Business ................................................... 3
BMA 353 Operations Management ........................................ 3
BMA 355 Labor-ManageMent Relations ................................ 3
BMA 358 Managerial Decision Making ................................. 3
BMA 378 HCI & Usability Testing ......................................... 3
BMA 382 Entrepreneurship .................................................. 3
BMA 383 Small Business Management .................................. 3
BMA 395 Real Estate Principles ............................................. 3
BMA 446 Employment Law .................................................. 3
BMA 456 Compensation Management ..................................... 3
BMA 457 HR Theory & Program Design ............................... 3
BMA 459 Topics in Management .......................................... 3
BMA 489 Topics in Entrepreneurship .................................... 3

Students who desire to minor in management must be approved by the chair of the Department of Business Management and Administration prior to enrolling in the program. The chair must also approve the completion of the minor on the transcript. Transfer policies for minors are the same as those for Foster College of Business Administration majors. Prior approval of transfer credit must be secured from the chair of the Department of Business Management and Administration.

Management Information Systems Minor
A minor in management information systems will provide an opportunity for students to enhance their knowledge and credentials in the use and development of computer software and/or hardware. The minor will provide students
with an opportunity to be employed in the IS field, give them the skills that will make them the ideal liaison between IS professionals and experts in other functional areas of an organization, and the technological base to become valuable "power users" of essential software applications, such as spreadsheets, databases, and e-commerce tools. The minor will allow the student to develop focused expertise in one of the distinct fields that comprise the breadth of the information systems professional. The minor is open to all majors across campus.

The minor requires 15 hours.

Required courses:
- BMA 272 Management Applications of Personal Computers .................................................. 3
- BMA 276 Developing Information Systems for E-Commerce .................................................. 3

Elective Courses (choose three from the following):
- BMA 373 Business Data Communications .......................................................... 3
- BMA 374 Database Management and Administration .................................................. 3
- BMA 375 Business Systems Analysis and Design .................................................. 3
- BMA 378 HCI and Usability Testing ............................................................................ 3
- BMA 379 Information Systems Security .................................................................. 3

Course Descriptions

BMA 172 Business Computer Skills & Applications 1 hr.
Implementation of spreadsheet software to solve business problems covering both introductory and intermediate skills. Review and extension of presentation skills using common presentation software. Use of linking functionality between varied applications to create integrated presentations. Brief introduction to the data analysis functions of spreadsheet software and specialized statistical analysis software. May not be counted for degree credit in the Foster College of Business Administration. Pass/Fail. Prerequisite: business major or minor or consent of department chair.

BMA 175 Introduction to Developing Business Applications 3 hrs.
Provides an introduction to object-oriented computer programming using Visual Basic.NET. Demonstrates the advantages of using a programming environment to efficiently develop computer programs. Focuses on developing logical approaches to problem solving and implementing programmed solutions to those problems.

BMA 272 Management Applications of Personal Computers 3 hrs.
Survey of computer applications in business, personal computers, and business information systems. Emphasis on personal computer applications from the perspective of the individual user. Intermediate-level software packages. Prerequisite: BMA 172 or successful completion of Foster College of Business Administration computer proficiency exams.

BMA 275 Business Applications Using Visual Basic 3 hrs.
Object oriented business application development using Visual Basic. Emphasis on object classes, events and properties, and data structures, controls, and objects. Prerequisite: BMA 175.

BMA 276 Developing Information Systems for E-Commerce 3 hrs.
Provides an introduction to developing e-commerce solutions and their components using various tools. Also explores the business models available for implementing these solutions within and between organizations. It focuses on the application of networked information technologies to implement a rich variety of business applications.

BMA 315 Risk and Insurance 3 hrs.

BMA 342 The Legal Environment of Business 3 hrs.
Principles of law in commercial paper, agency, business organizations, sales, and contracts, with application of the commercial code. Prerequisite: BMA 342.

BMA 345 Law of Business 3 hrs.
Principles of law in commercial paper, agency, business organizations, sales, and contracts, with application of the commercial code. Prerequisite: BMA 342.

BMA 353 Operations Management 3 hrs.
Survey of issues and methods related to designing, implementing, and controlling production systems. Project management, production planning, quality control, just-in-time techniques, and strategic importance of operations management. Prerequisites: QM 263; BMA 352.

BMA 355 Labor-Management Relations 3 hrs.
Collective bargaining as a social innovation in labor-management relations. Current public policy, major substantive issues in management and union policies, and tactics in collective bargaining and dispute settlement. Case studies. Prerequisite: junior/senior standing; BMA 352 or consent of BMA department chair.
Management of human resources in work organizations. Emphasis on employee recruitment, selection, development, and skill utilization for efficiency and effectiveness. Prerequisite: BMA 352.

BMA 357 Leadership & Interpersonal Behavior 3 hrs.
Recognition, development, and practice of organizational leadership skills. Enhancing interpersonal dynamics and relationships. Organizational politics and interpersonal influence, creativity and innovation, negotiation and conflict resolution. Handling problem situations; effectively utilizing diverse talents and personalities. Introduction to major leadership and interpersonal development techniques. Case studies. Prerequisite: BMA 352.

BMA 358 Managerial Decision Making 3 hrs.
Descriptive and prescriptive approaches; formal and informal methods. Emphasis on subjective judgments and choices. Prerequisites: BMA 352 or 6 hours psychology and/or sociology; a 3-credit-hour course in statistics.

BMA 372 Management Information Systems 3 hrs.
Management of information resources. Use of information systems for competitive/strategic advantage. Advances in information technology, including industry trends and innovations. The information systems function in organizations. Electronic commerce and the World Wide Web. The impact of information systems on organizations. Ethical and legal issues in information use. Information security. Prerequisites: junior/senior standing; Foster College of Business Administration computer skills proficiency requirement.

BMA 373 Business Data Communications 3 hrs.
Study of the theories, design and technologies utilized in modern business data communications networks. Study of the functionality, performance and management of multiple network designs. Prerequisites: BMA 272 and junior/senior standing.

BMA 374 Database Management and Administration 3 hrs.
Investigation and application of advanced database concepts: administration, technology, and selection and acquisition of database management systems. In-depth business practicum in data modeling and system development in a database environment. Overview of future trends in data management. Prerequisites: BMA 272 and junior/senior standing.

BMA 375 Business Systems Analysis & Design 3 hrs.
Information systems in business applications. Emphasis on relationship of information systems planning to overall business goals, policies, plans, management style, and industry condition; analysis, design, and implementation of information systems. Overview of future trends in data management. Prerequisites: BMA 272 and junior/senior standing.

BMA 378 Human-Computer Interaction and Usability Testing 3 hrs.
Provides an introduction to the theory of human factors and process of usability testing. Explores current theory of human factors and human-computer interaction and how they should be applied to designing business systems. Emphasis placed on the scientific approach to systems testing to ensure systems meet usability standards and on the statistical benchmarking these tests provide. This is a nontechnical course designed for those interested in managing the development of technical products and evaluating the usability of existing products and processes.

BMA 379 Information Systems Security 3 hrs.
An introduction to the various technical and administrative aspects of information security and assurance. Provides the foundation for understanding the key issues associated with protecting information assets, determining the levels of protection and response to security incidents, and designing a consistent, reasonable information security system, with appropriate intrusion detection and reporting features. Prerequisite: BMA 172.

BMA 382 Entrepreneurship 3 hrs.
Activities involved in starting, financing, growing, and harvesting a new business venture. Entrepreneurs and their behavior, analysis of opportunities, obtaining capital, and venture strategies. Prerequisite: ATG 158; junior standing. (Not open to students who have had BMA 359.)

BMA 383 Small Business Management 3 hrs.
Management and operation of a small business. Marketing, human resources, financing, and administration plans directly related to the small company. Prerequisite: BMA 352. (Not open to students who have had BMA 451.)

BMA 384 Entrepreneurial Finance 3 hrs.
Planning and strategies involved in starting or expanding a business. Emphasis on capitalization, record keeping, liquidity management, fixed asset management, financial analysis, expansion strategies, establishing firm value, and exiting the firm. Cross-listed with FIN 384. Prerequisites: BMA 352; FIN 322.

BMA 385 Technology Entrepreneurship 3 hrs.
New product development with an emphasis on high-technology products. Opportunity screening, feasibility studies, demand, analysis, and cost projections necessary for product commercialization. Prerequisite: junior standing.

BMA 395 Real Estate Principles 3 hrs.
Basic principles of real estate and real estate practices in property rights (contracts, deeds, and mortgages), property ownership, financing and management, real estate brokerage, valuation, planning, public housing, and urban renewal. Prerequisite: junior/senior standing.
BMA 446 Employment Law 3 hrs.
Legal issues surrounding employment-at-will and collective bargaining, including hiring and firing, discrimination, workers' compensation, personnel handbooks, alcohol and drug abuse, federal wage and hour law, and federal labor law. Prerequisites: BMA 342, 352.

BMA 450 Competitive Strategy 3 hrs.
Concepts, principles, and techniques of developing strategy in competitive markets. Case studies for analysis of firms' strategic maneuvering. Simulation exercises on strategic decision making in competitive market structures. Prerequisites: BMA 352; FIN 322; MTG 315.

BMA 452 Strategic Management & Business Policy 4 hrs.
Integrated capstone course. Top level management activities; strategic analysis, planning, strategy development, policy formulation and implementation. Case material and applied projects. Prerequisites: FIN 322; BMA 352; MTG 315; senior standing.

BMA 456 Compensation Management 3 hrs.
Financial returns, tangible services, and benefits employees receive. Prerequisite: BMA 356.

Activities associated with the human resources function. Emphasis on the theoretical, technical, and legal aspects of selecting, developing, and maintaining employees. Prerequisites: BMA 356.

BMA 459 Topics in Management 3 hrs.
Topics of special interest which may vary each time course is offered. Topic and prerequisite stated in current Schedule of Classes. May be repeated under different topics for a maximum of six hours credit.

BMA 478 Implementing Business Computer Systems 3 hrs.
Development of a business computer system application with the life cycle methodology. Specific concepts and skills of project management. Team projects. Prerequisites: BMA 375.

BMA 479 Topics in Management Information Systems 3 hrs.
Topics of special interest which may vary each time course is offered. Topic and prerequisites stated in current Schedule of Classes. May be repeated under different topics for a maximum of six hours credit. Prerequisite: stated in current schedule of classes

BMA 488 Internship in Entrepreneurship 1-3 hrs. each
Supervised experience with an approved new or emerging firm or with an agency providing assistance to emerging high-technology firms. Application of entrepreneurship skills. Written application required (available from internship director). May be repeated for a maximum of 3 hours. Prerequisites: junior standing; entrepreneurship major; 2.5 overall GPA; at least one entrepreneurship-related course.

BMA 489 Topics in Entrepreneurship 3 hrs.
Topics of special interest, which may vary each time the course is offered. Topic and prerequisite stated in current Schedule of Classes. May be repeated under different topics for a maximum of six hours credit. Prerequisite: junior standing.

BMA 498, 499 Independent Studies 1-3 hrs. each
Studies undertaken by academically qualified students under the guidance of a faculty member, with the approval of the chair of the Department of Business Management and Administration. Business Management and Administration majors only. Prerequisite: junior/senior standing.
The Department of Economics offers a major in the Foster College of Business Administration and in the College of Liberal Arts and Sciences. Normally, individuals planning a career in business should be in the Foster College of Business Administration, and individuals planning a career in government, politics, public policy, or the law should be in the College of Liberal Arts and Sciences. Students interested in an economics major are urged to consult with a departmental advisor for a suggested course of study that will serve their career objectives.

Courses in economics are designed for (1) students of other departments wishing to broaden their understanding of the economic forces of our world; (2) students planning to enter those business and professional careers in which a more specialized understanding of economics is important; and (3) students planning to continue the study of economics or related subjects in graduate school, in order to prepare for professional careers in economics.

The departmental requirements for the major are designed to provide the student with (1) the basic economic theory; (2) the basic quantitative tools; (3) a more specialized understanding of those particular areas of interest in economics; and (4) a broad background in the humanities, physical sciences, and social sciences.

Individuals planning to study for the PhD in economics should take either a minor in mathematics or the following courses: MTH 121, MTH 122, MTH 207, and MTH 223. It is strongly advised that MTH 420 also be taken.

In addition to the University and Foster College of Business Administration requirements, students enrolled in the Department of Economics must fulfill the following requirements:

- Economics 100 or 221, and 222, 300, 332, 333, 400, 498, 499
- Junior/Senior Economics Electives 6 hrs.
- At least one Heterodox Economics Course (Economics 313, 345, 351, 362, 444) 3 hrs.
- Philosophy 3 hrs.
- Majors must receive a grade of C or better in Economics 332, 333, and 499.
- Minimum of 26 semester hours in economics and a minimum of 20 hours at the junior/senior level.

A recommended course sequence for economics, Foster College of Business Administration, and basic skills courses is as follows. Elective courses should be chosen with care to ensure that the University general education and Foster College of Business Administration requirements are met.

### Freshman Year

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 101 Composition</td>
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<tr>
<td>MTH 115 Brief Calculus with Applications I</td>
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</tr>
<tr>
<td>ATG 157 Accounting Principles</td>
<td></td>
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<tr>
<td>COM 103 The Oral Communication Process</td>
<td>3</td>
</tr>
<tr>
<td>BUS 100 Contemporary Business</td>
<td></td>
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<td>BMA 172 / Competency Exam</td>
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**General Education Courses**

- 15
- 32

### Sophomore Year

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
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<tbody>
<tr>
<td>BUS 210 Team Dynamics</td>
<td>1</td>
</tr>
<tr>
<td>ATG 158 Accounting Principles</td>
<td>3</td>
</tr>
<tr>
<td>ECO 221 Principles of Microeconomics</td>
<td>3</td>
</tr>
<tr>
<td>ECO 222 Principles of Macroeconomics</td>
<td>3</td>
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<tr>
<td>QM 262, 263 Quantitative Analysis I and II</td>
<td>6</td>
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<tr>
<td>Philosophy Elective</td>
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**General Education Courses**

- 13
- 32

### Junior Year

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<thead>
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<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENG 300, 301, 304, 305, or 306 Advanced Writing</td>
<td>3</td>
</tr>
<tr>
<td>ECO 332 Intermediate Microeconomics Theory</td>
<td>3</td>
</tr>
<tr>
<td>ECO 333 Intermediate Macroeconomics Theory</td>
<td>3</td>
</tr>
<tr>
<td>FIN 322 Business Finance</td>
<td>3</td>
</tr>
<tr>
<td>IB 306 Introduction to International Business</td>
<td>2</td>
</tr>
<tr>
<td>BMA 342 Legal Environment of Business</td>
<td>3</td>
</tr>
<tr>
<td>BMA 352 Managing in Organizations</td>
<td>3</td>
</tr>
<tr>
<td>BUS 220 Career Planning Strategies</td>
<td>1</td>
</tr>
<tr>
<td>MTG 315 Principles of Marketing</td>
<td>3</td>
</tr>
<tr>
<td>ECO 300 Economics Colloquium for Juniors</td>
<td>1</td>
</tr>
<tr>
<td>Economics Electives</td>
<td>6</td>
</tr>
</tbody>
</table>

**General Education Courses**

- 31
Senior Year
BMA 372 Management Information Systems ................. 3
ECO 498, 499 Senior Seminar in Economics ................. 3
ECO 400 Economics Colloquium for Seniors............... 1
BMA 353 Operations Management ............................. 3
BMA 452 Strategic Management and Business Policy....... 3
Heterodox Elective..................................................... 3
Behavioral Sciences ............................................... 6

Free Electives .......................................................... 22
General Education Courses........................................ 3

Students interested in minor in economics, see College of Liberal Arts and Sciences, Department of Economics.

Course Descriptions

ECO 100 Introduction to Economics 3 hrs. (Gen. Ed. SF)
Nature, scope, and methods of economics; current economic institutions, problems, and policies. Students who have already completed ECO 221 and/or 222 will not receive credit for this course. Not open to College of Business majors.

ECO 101 Economics and Contemporary Issues 1 hr.
Application of economic method to analysis of contemporary issues. Emphasizes student participation in applications of economic principles to analysis of contemporary problems and policies. Prerequisite: concurrent enrollment in ECO 100.

ECO 200 Economics in Literature 1 hr.
Student-faculty discussion of "literary" texts, usually novels, from an economic perspective. Prerequisites: 3 hrs. of economics; consent of instructor.

ECO 221 Principles of Microeconomics 3 hrs. (Gen. Ed. SF)
Institutions, problems, and policies of the market system and alternative systems: allocation of resources and distribution of income. Not open to students with ECO 100.

ECO 222 Principles of Macroeconomics 3 hrs. (Gen. Ed. SF)
Process and determinants of overall economic activity and growth. National income accounting; determination of aggregate income, employment, and the price level; money and banking; government monetary and fiscal policies; international economics.

ECO 300 Economics Colloquium for Juniors 1 hr.
Student-faculty discussion of books and articles concerning significant economic ideas and issues not examined in depth in other courses. Prerequisites: economics major, junior standing.

ECO 301 Money and Banking 3 hrs.
Real and financial sectors of the economy. Emphasis on structure and process of financial intermediation and related policy issues. Prerequisites: ECO 100 or 221; ECO 222; junior/senior standing.

ECO 305 Public Expenditure and Finance 3 hrs.
Economic role of government in the U.S. economy. Determination of the size and economic functions of government, federal expenditure decisions and budgeting, equity and efficiency of various types of taxes, and selected problems in state and local finance. Prerequisites: ECO 100 or ECO 221; ECO 222; junior/senior standing.

ECO 310 Labor Problems 3 hrs.
Theories of the labor movement; labor legislation and its effect on labor management and society's goals; theories of collective bargaining; impact of government economic policies on labor management relations; labor theory. Prerequisites: ECO 100 or ECO 221; ECO 222; junior/senior standing.

ECO 313 American Economic History 3 hrs.
Changes in the processes of production and distribution in American economic development: their impact on economic institutions, and impact of economic institutions on economic development. Prerequisites: ECO 100 or ECO 221; ECO 222; junior/senior standing.

ECO 319 Introduction to Econometrics 3 hrs.
Techniques and procedures of application of statistical tools to economic research problems; selected methods for investigating the empirical validity of economic theory. Prerequisites: ECO 100 or 221; ECO 222; QM 263 or equivalent; junior/senior standing.

ECO 325 Urban Economics 3 hrs.
Origins, economic structure, and functions of urban centers; selected economic problems and policies. Prerequisites: ECO 100 or ECO 221; ECO 222; junior/senior standing.

ECO 332 Intermediate Microeconomic Theory 3 hrs.
Optimizing behavior and market processes. Emphasizes proficiency in numerous microeconomic tools of analysis. Encourages thought about these tools and the real world they are designed to illuminate. Prerequisites: ECO 100 or 221; ECO 222; MTH 115 or 121 or consent of the instructor; junior/senior standing.

ECO 333 Intermediate Macroeconomic Theory 3 hrs.
Integrated approach to the theory of income determination; contemporary growth models; explanations of cyclical fluctuations. Prerequisites: ECO 100 or 221; ECO 222; junior/senior standing.

ECO 335 Managerial Economics 3 hrs.
Applying economic theory to the tools of operations research and business analysis: demand, cost, profit, and pricing. Decision theory of the firm. Prerequisites: ECO 100 or 221; ECO 222; QM 262 or equivalent; junior/senior standing.
ECO 345  Comparative Economic Systems  3 hrs.
Analysis of three major types of economic systems. Systems are contrasted in terms of goals, goals achievement, capacity to generate growth, and as generators of a lifestyle. Prerequisites: ECO 100 or ECO 221; ECO 222; junior/senior standing.

ECO 351  Economic Development  3 hrs.
Economic behavior of people living in less developed countries: goals, constraints, means available, and choices made. Prerequisites: ECO 100 or ECO 221; ECO 222; junior/senior standing.

ECO 352  Industrial Organization  3 hrs.
Structure, conduct, and performance of business enterprise in the U.S.; possible and actual role of government as a regulator of business enterprise, historically and philosophically. Prerequisites: ECO 100 or ECO 221; ECO 222; junior/senior standing.

ECO 362  Economics and Law  3 hrs.
Tort, property, contract, civil, and criminal law from the perspective of economics. Overview of microeconomic theory applied to legal problems to attain optimum welfare for the individual or community affected by issues before the law. Prerequisites: ECO 100 or 221; ECO 222; junior/senior standing.

ECO 390  International Monetary Economics  3 hrs.
Adjustments in the world monetary economy including balance of payments adjustments and equilibrium and disequilibrium in foreign exchange markets. Cross listed as IB 390. Prerequisites: ECO 100 or 222; junior/senior standing.

ECO 391  International Trade  3 hrs.
Welfare implications of international trade; balance of payments; equilibrium and disequilibrium; external and domestic policy effects on the balance of payments and welfare; international trade and financial cooperation among nations. Cross listed as IB 391. Prerequisites: ECO 100 or 221; ECO 222; junior/senior standing.

ECO 399  Special Topics in Economics  3 hrs.
Topics of special interest which may vary each time course is offered. Topic stated in current Schedule of Classes. May be repeated under different topics. Prerequisite: junior/senior standing.

ECO 400  Economics Colloquium for Seniors  1 hr.
Continuation of Economics 300, with more difficult and challenging readings. Prerequisites: economics major; senior standing.

ECO 418  Mathematical Economics  3 hrs.
Application of mathematics to selected topics of economic theory. Prerequisites: ECO 100 or 221; ECO 222; MTH 122; junior/senior standing.

ECO 434  Readings in Economics  1 to 6 hrs.
Individual readings for qualified students under the guidance of a member of the economics staff. Prerequisites: approval of the department chair; junior/senior standing.

ECO 444  History of Economic Thought  3 hrs.
Development of Western economic thought in historical context; how new ideas influenced subsequent thought. 16th Century mercantilism to Keynes. Prerequisites: ECO 100 or ECO 221; ECO 222; junior/senior standing.

ECO 498  Senior Seminar in Economics, Part I  0 hrs.
Topics in economics selected, studied, and discussed by students as a group under faculty guidance. Each student begins to explore an area of economic thought in which he or she has a particular interest and plans to write a senior thesis. Required for all economics majors. Pass/Fail. Prerequisites: senior standing (junior standing with consent of instructor).

ECO 499  Senior Seminar in Economics, Part II  3 hrs.
Topics in economics selected, studied, and discussed by students as a group under faculty guidance. Each student explores an area of economic thought in which he or she has a particular interest. Prerequisites: ECO 498; senior standing (junior standing with consent of instructor).
Department of Finance and Quantitative Methods

FACULTY  Professors Bhandari, Hatfield (Gerald Stephens Professor), Horvath (Robert T. Stevenson Jr./National City Bank Professor, chair), Webster; Associate Professors, Rubash, Showers; Assistant Professors El Shahat, Sinha.

The Department of Finance and Quantitative Methods serves actuarial science-business and finance majors, 3:2 master of science in quantitative finance majors, decision analysis minors, and others enrolled for one of the actuarial science, finance, or quantitative methods courses. Solid foundations in the fundamentals of these fields and the supporting areas of mathematics, communications, and the sciences, both natural and social, are stressed by departmental faculty. Graduates are equipped to adapt to rapidly changing and competitive environments. Innovation, creativity, and analysis are integrated into a diverse and rigorous program preparing students for graduate school or success in their chosen professional fields.

Social and professional activities available to students include the Actuarial Science Club, the Bradley Investment Organization, and the Financial Management Association and its National Honor Society.

Actuarial Science – Business

Actuarial Science – Business Major

A career in actuarial science is widely recognized as one of the most attractive professions available to college graduates. Actuaries apply a unique set of business and mathematical skills in solving financial and social problems. Examples of organizations employing actuaries include insurance companies, public utilities, and select regulatory agencies.

The actuarial science major is a cooperative effort between the Finance and Quantitative Methods Department and the Department of Mathematics and is based on the premise that successful actuaries have mastered essential business and risk management and insurance knowledge along with specific actuarial mathematics skills.

The objective of Bradley’s actuarial science-business program is to prepare majors for successful careers as actuaries. Required courses include several which help students prepare for several of the standard actuarial exams administered by the Society of Actuaries (SOA) and the Casualty Actuarial Society (CAS).

A list of the program requirements is provided below, along with a recommended course sequence for actuarial science-business (ASB) majors.

Departmental requirements for an actuarial science – business major

1. Complete the business core, substituting MTH 325 and 326 for QM 262 and 263, respectively; and substituting IME 313 for BMA 353.

2. Actuarial Science Business (ASB) requirements:
   A. All students must successfully complete the following courses:
      CS 106 Intro. to Programming & Computer Science
      MTH 121 Unified Calculus I
      MTH 122 Unified Calculus II
      MTH 223 Unified Calculus III
      MTH 207 Elementary Linear Algebra with Applications
      MTH 325 Probability and Statistics I
      MTH 326 Probability and Statistics II
      MTH 335 Topics in Actuarial Science (taken twice, under different topics)
      MTH 427 Applied Statistical Methods
      IME 313 Operations Research I
      RMI 315 Principles of Risk Management
   B. All students must successfully complete one additional 3-credit-hour RMI course.

3. All students are encouraged to take at least one of the following courses: ECO 301 Money and Banking, FIN 325 Investment Analysis, or FIN 425 Portfolio Theory and Management.

4. All students must complete at least one professional actuarial exam administered by the Society of Actuaries.

A recommended course sequence for actuarial science-business majors is shown below. Elective courses should be chosen with care to ensure that the University general education requirements are satisfied.
### Freshman Year

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ATG 157</td>
<td>Accounting Principles – Financial</td>
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<tr>
<td>ATG 158</td>
<td>Accounting Principles – Managerial</td>
<td>3</td>
</tr>
<tr>
<td>BUS 100</td>
<td>Contemporary Business</td>
<td>3</td>
</tr>
<tr>
<td>COM 103</td>
<td>The Oral Communication Process</td>
<td>3</td>
</tr>
<tr>
<td>ENG 101</td>
<td>English Composition</td>
<td>3</td>
</tr>
<tr>
<td>MTH 121</td>
<td>Calculus I</td>
<td>4</td>
</tr>
<tr>
<td>MTH 122</td>
<td>Calculus II</td>
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<td>General Education Requirements</td>
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<tr>
<td>BMA 172</td>
<td>/ Competency Exam</td>
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### Sophomore Year

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<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>BUS 210</td>
<td>Team Dynamics</td>
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<tr>
<td>CS 106</td>
<td>Intro. to Programming &amp; Computer Science</td>
<td>3</td>
</tr>
<tr>
<td>ECO 221</td>
<td>Principles of Microeconomics</td>
<td>3</td>
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<td>ECO 222</td>
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</tr>
<tr>
<td>MTH 223</td>
<td>Calculus III</td>
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<tr>
<td>MTH 207</td>
<td>Elementary Linear Algebra with Applications</td>
<td>3</td>
</tr>
<tr>
<td>MTH 325</td>
<td>Probability and Statistics I</td>
<td>3</td>
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<tr>
<td>General Education Requirements</td>
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<tr>
<td>Behavioral Science Requirements</td>
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### Junior Year

<table>
<thead>
<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>BMA 342</td>
<td>Legal Environment of Business</td>
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<tr>
<td>BMA 352</td>
<td>Managing in Organizations</td>
<td>3</td>
</tr>
<tr>
<td>BUS 220</td>
<td>Career Planning Strategies</td>
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<tr>
<td>RMI 315</td>
<td>Principles of Risk Management</td>
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<td>FIN 322</td>
<td>Business Finance</td>
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<td>IB 306</td>
<td>Introduction to International Business</td>
<td>2</td>
</tr>
<tr>
<td>IME 313</td>
<td>Operations Research I</td>
<td>3</td>
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<tr>
<td>MTH 326</td>
<td>Probability and Statistics II</td>
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<tr>
<td>MTH 335</td>
<td>Topics in Actuarial Science*</td>
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<td>General Education Requirements</td>
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<td>Another 3-semester-hour RMI course</td>
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### Senior Year

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<td>ECO 300</td>
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<td>ECO 300</td>
<td>301, 304, 305, or 306</td>
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<tr>
<td>MTH 427</td>
<td>Applied Statistical Methods</td>
<td>3</td>
</tr>
<tr>
<td>MTH 335</td>
<td>Topics in Actuarial Science*</td>
<td>3</td>
</tr>
<tr>
<td>MTG 315</td>
<td>Principles of Marketing</td>
<td>3</td>
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<tr>
<td>BMA 372</td>
<td>Management Information Systems</td>
<td>3</td>
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<tr>
<td>BMA 452</td>
<td>Strategic Management and Business Policy</td>
<td>4</td>
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<td>Behavioral Science Requirements</td>
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<tr>
<td>Free Electives</td>
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</table>

### BS/BA-MSQF 3:2 Program

The Department of Finance and Quantitative Methods offers an integrated Bachelor’s (BS or BA) and Master of Science in Quantitative Finance (MSQF) degree. In this integrated program (commonly referred to as a 3:2 program), students initiate their studies by applying in writing. Freshmen apply upon entering the university. Admission to the BS/BA-MSQF program is based on their ACT or SAT score, class standing in the upper 15 percent of their graduating class, and two academic letters of recommendation.

Initiation of the 3:2 BS/BA-MSQF track is available when students are admitted to Bradley University and through their junior year. Students may transfer from other majors or programs by applying in writing. Admission for transfer students is based upon ACT or SAT, grade point average (minimum acceptable is 3.0), and two academic letters of recommendation.

Students in the BS/BA-MSQF program may take 500-level courses during their senior year (90 or more credit hours) so long as course prerequisites are satisfied. When a BS/BA-MSQF student accumulates 90 credit hours and maintains at least a 3.0 grade point average, the student is admitted to the MSQF program.

The BS/BA-MSQF undergraduate track requires additional credit hours as outlined below and provides the foundation for the graduate-level courses required for the BS/BA-MSQF.

Upon completion of 124 credit hours and all requirements listed below, the student would receive a BS or BA degree. BS/BA-MSQF candidates begin their graduate status upon receipt of their BS/BA degree. Subsequent to completion of the requirements in the graduate catalog, a student receives the Master of Science in Quantitative Finance degree. Students who fail to meet the requirements or who do not qualify for admission to the MSQF by the end of their senior year may still earn a BS or BA degree in finance by completing all courses required for the undergraduate finance degree. (See “Finance Major” below.)

The 3:2 BS/BA-MSQF track offers students greater availability of financial aid and earlier guarantee of admission to the graduate program (see the Graduate Catalog for specific requirements). The track also provides the student with the mathematical concepts, tools, and techniques needed for many advanced finance-related positions in both the private and public sectors and subsequent graduate studies.

While the Graduate Catalog provides a complete description of the MSQF program requirements, the following are specific course requirements at the undergraduate level in addition to or in lieu of the college core and university general education requirements:

- MTH 121 Calculus I (meets math general education requirement).........3
- MTH 325 Probability & Statistics I (in lieu of FCBA core requirement QM 262).........4

*MTH 335 is taken twice under different topics.
The finance major enables students to understand the problems of obtaining and using monetary resources. Students select options preparing them for work in corporate finance, the securities area, futures, forward markets, options markets, real estate, insurance, or personal financial planning. International Financial Management and Financial Institutions and Markets courses are sometimes offered off campus in locations such as London and New York City.

**Corporate**

Students interested in corporate finance select courses providing a background in the various financial elements of corporate activities. Typically, financial management decisions involve capital budgeting and financing decisions as well as the daily activities associated with allocating and obtaining funds. A variety of optimization and modelling techniques are studied. The ability to develop a sound financial analysis of an opportunity is emphasized.

**Securities**

Students interested in the securities area select courses that will develop their skills in analyzing and selecting investment opportunities. Portfolio analysis as well as identification of individual security characteristics are stressed. The markets for securities of all types, domestic and international, are studied to provide an understanding of their opportunities and constraints. Implications of market efficiency are considered. The ability to develop a worthwhile and unique analysis of investments is emphasized.

**Markets and Institutions**

Students interested in financial institutions such as insurance companies, banks, pension funds, and finance companies select courses that will prepare them for positions in these organizations. Modern technology, globalization and newer ideas associated with managing financial institutions are of particular importance. The decision-making ability needed for proper management of progressive organizations is developed through a variety of rigorous courses.

**Other**

The curriculum structure is suitable for students planning graduate study or entrepreneurial activities. Many past students now own and operate their own businesses.

Due to the highly quantitative nature of many areas of finance, the entering student is advised to have a strong mathematics background. Three years of algebra, one year of geometry, and a semester of trigonometry are recommended. It is also helpful for entering students to have and be able to use a personal computer.

**Departmental requirements for a finance major:**

A. A total of 24 hours in finance courses including the core: FIN 322 Business Finance, FIN 325 Investment Analysis, FIN 328 Financial Markets and Institutions.

B. FIN 494, Financial Strategy, plus a minimum of 3 additional hours in finance courses at the senior (4xx) level. These classes count as part of the required 24 hours in finance.

C. Three hours from courses designated as “tools courses,” selected from:
   - QM 326 Business Forecasting
   - QM 364 Decision Support Systems
   - ECO 319 Introduction to Econometrics
   - ECO 418 Mathematical Economics

D. An approved three-hour functional area international course, selected from:
   - FIN 323 International Financial Management
   - ECO 390 International Monetary Economics
   - ECO 391 International Trade
   Note: FIN 323 also counts as part of the required 24 hours in finance.
   - ECO 390 and 391 also count as the junior-senior level economics course required by the college.

E. QM 260 Quantitative Methods in Finance

F. At least three hours in accounting beyond ATG 157 and ATG 158, selected from: ATG 204 Cost Accounting and ATG 301 Intermediate Accounting.
An illustrative course sequence follows. Elective courses should be chosen with care to ensure that the University general education and Foster College of Business Administration requirements are met.

**Freshman Year**

- BUS 100 Contemporary Business ............................................. 3
- ENG 101 English Composition ................................................ 3
- MTH 115 or 121 Calculus I .................................................... 4
- QM 260 Quantitative Methods in Finance ............................. 3
- ATG 157 Accounting Principles - Financial ......................... 3
- COM 103 The Oral Communication Process .......................... 3
- Programming Language (Section F) ........................................ 3
- General Education and/or Behavioral Science ....................... 8
- BMA 172 / Competency Exam ................................................ 1

**Sophomore Year**

- ATG 158 Accounting Principles .......................................... 3
- BUS 210 Team Dynamics ..................................................... 1
- ECO 221 Principles of Microeconomics ................................. 3
- ECO 222 Principles of Macroeconomics ................................. 3
- QM 262 Quantitative Analysis I ............................................ 3
- QM 263 Quantitative Analysis II .......................................... 3
- General Education, Behavioral Science, Finance Elective
  (FIN 220) and/or Tools Course (Section C, ATG 204)........... 16

**Junior Year**

- ENG 300, 301, 304, 305, or 306 Advanced Writing .............. 3
- FIN 322 Business Finance ................................................... 3
- MTG 315 Principles of Marketing .......................................... 3
- IB 306 Introduction to International Business ....................... 2
- BMA 342 Legal Environment of Business .............................. 3
- BMA 352 Managing in Organizations ................................... 3
- BMA 372 Management Information Systems ......................... 3
- BUS 220 Career Planning Strategies ................................... 1
- Finance Electives (Consider Section D, FIN 323) .................... 6
- Tools Course (Section C), Finance Elective,
  General Education and/or Free Electives ......................... 3

**Senior Year**

- BMA 353 Operations Management ....................................... 3
- ECO Junior-Senior Elective (Consider Section D,
  ECO 390 or 391) ............................................................. 3
- Finance Electives (Consider Section D, FIN 323) .................... 6
- Senior Finance Elective .................................................... 3
- FIN 494 Financial Strategy .................................................. 3
- BMA 452 Strategic Management and Business Policy .......... 3
- International Requirement (Section D) or Free Elective ....... 3
- General Education, Finance Elective, and/or
  Free Electives .................................................................... 6

**Decision Analysis Minor**

The minor in Decision Analysis is designed to provide students with a solid foundation of mathematical and quantitative tools essential to sound decision-making. All areas of academic study such as sociology, psychology, and health sciences, may benefit from the application of analytical thought. Thus, this program will assist students in all majors across campus in formulating optimal solutions to common problems they will encounter in their professional lives. Students enrolled in the Decision Analysis program will acquire the skills to critically evaluate alternative solutions to complex questions in an analytical and pragmatic manner. Upon graduation these students will find themselves better prepared to assume responsible positions of authority and to perform their professional duties in a resourceful and productive manner.

In addition to the University requirements and those imposed by the student’s college, a minor in Decision Analysis must complete the following or their equivalents:

**Required:**
- QM 262 - Quantitative Analysis I (3 hours)
- QM 263 - Quantitative Analysis II (3 hours)

**Nine (9) hours from Groups A and B with at least six (6) from Group A:**

**Group A:**
- QM 326 - Business Forecasting (3 hours)
- QM 364 - Decision Support Systems (3 hours)
- QM 369 - Topics in Quantitative Methods (3 hours)

**Group B:**
- ECO 319 - Introduction to Econometrics (3 hours)
- ECO 418 - Mathematical Economics (3 hours)
- QM 498 - Independent Study in Quantitative Methods
  (1-3 hours) or a quantitative methods course in the student’s major if approved by the FQM Department

Students whose major is from the Foster College of Business Administration must have at least 12 hours in courses that are unique from those used to fulfill their major requirements. Students should consult their academic advisor.

**Course Descriptions**

**Actuarial Science—Business**

**ASB 315 Risk and Insurance** 3 hrs.


**Finance**

**FIN 220 Personal Finance** 3 hrs.  
(General Ed. SF)

Principles and practice of management of personal income, wealth, and credit: budgeting, sources of financing, savings, estate planning, and institutions of personal finance.
FIN 322 Business Finance 3 hrs.
Capital budgeting and principles of financial management. External and internal sources of funds: costs and profitable uses in business organizations. Prerequisites: ATG 157 and junior/senior standing.

FIN 323 International Financial Management 3 hrs.
Financial characteristics of international business. International exchange, liquidity, markets, investments, and banking, in context of historical development, environmental characteristics, economic factors, political systems, and legal constraints. Emphasis on exchange rate exposure management. Cross listed as IB 323. Prerequisites: ATG 158; ECO 222; junior/senior standing.

FIN 325 Investment Analysis 3 hrs.

FIN 327 Derivative Securities 3 hrs.
Overview of options, futures, swaps, and related financial securities. Examination of exchanges, pricing issues, arbitrage, and trading strategies. Applications emphasize the use of derivative securities for managing financial risk. Prerequisites: FIN 322, QM 260.

FIN 328 Financial Institutions and Markets 3 hrs.
Operation of financial institutions and interrelationships between their operations and economic activity; credit flow and money movements, in the context of financial institutions’ operations. Structure and organization of the financial system; emphasis on markets and intermediaries. Prerequisites: ECO 100 or ECO 221; ECO 222; junior standing.

FIN 329 Commercial Bank Management 3 hrs.
The role of commercial banks in the capital markets; introduction and application of financial management concepts, tools, and techniques to the fundamental financial decisions that managers of commercial banks make. Focus is on the dynamic banking environment, regulations, nature of risks, asset and liability management, investment and credit decisions, and financing decision of commercial banks. Prerequisite: FIN 322.

FIN 330 Financial Services Marketing 3 hrs.
Examination of the increasing use of marketing techniques in the financial services industry and the changing environment of financial services. Course is structured around the core marketing principles of buyer behavior, segmentation, product development, distribution, pricing and promotion, as well as topics such as relationship marketing, customer loyalty, and technological developments. Designed for students with an interest in banking, insurance, securities, and other financial services industries. Cross listed with MTG 330. Prerequisites: FIN 322, MTG 315.

FIN 324 Entrepreneurial Finance 3 hrs.
Planning and strategies involved in starting or expanding a business. Emphasis on capitalization, record keeping, liquidity management, fixed asset management, financial analysis, expansion strategies, establishing firm value, and exiting the firm. Cross-listed with BMA 384. Prerequisites: BMA 352; FIN 322.

FIN 421 Liquidity Management 3 hrs.
Managing firms’ liquidity position; emphasis on use of positive and normative models dealing with short term assets and liabilities; ensuring liquidity while enhancing firm value. Prerequisite: FIN 322, QM 263.

FIN 422 Financial Analysis 3 hrs.
Interpretation and analysis of corporate financial statements. Current annual and interim reports as a source of data for management, stockholders, and creditors. Prerequisite: FIN 322, QM 263.

FIN 423 Advanced Business Finance 3 hrs.
Complex problems of the corporate finance manager. Emphasis on modern finance tools in managerial decision making. Recent literature of corporate finance. Prerequisite: FIN 322, QM 263.

FIN 424 Capital Budgeting 3 hrs.
Long-term capital investment decisions and long-term financing. Strategic wealth creation, general valuation principles, evaluation of net present value rule, alternative capital budgeting methods, ranking projects, taxation, marginal cash flows, and the impact of inflation. Single-investment risk analysis, risk analysis for top management and fully diversified investors, cost of capital, capital structure, dividend policy, interactions between investment and financing decisions, leasing, and capital rationing. Prerequisite: FIN 322, QM 263.

FIN 425 Portfolio Theory & Management 3 hrs.

FIN 426 Financial Research and Modeling 3 hrs.
Modeling financial processes, cash flows, security prices, etc., for decision making. Econometric, distribution-based, Markov and Stochastic Process concepts are employed. Treats risk/uncertainty identification, measurement and management. Prerequisites: QM 260; QM 263; FIN 322, and one additional jr./sr. finance course.

FIN 429 Topics in Finance 3 hrs.
Topics of special interest which may vary each time course is offered. Topic and prerequisite stated in current Schedule of Classes. May be repeated under different topics for a maximum of nine hours credit.
**FIN 494 Financial Strategy** 3 hrs.
Contemporary review of theory and practice of financial risk management. Principles for managing financial risk are applied to interest rates, exchange rates, and commodity prices. Financial engineering is incorporated into unified ethical and sustainable managerial problem solving and policy decisions designed to achieve successful operations. Supporting financial elements areas are integrated to understand and appreciate their interdependencies and benefits as a culminating academic experience. Prerequisites: 12 hours of finance at 300 or 400 level.

**FIN 498 Independent Study in Finance** 1-3 hrs.
Studies undertaken by academically qualified students under guidance of a faculty member. Open to Finance and Quantitative Methods Department majors only. May be repeated under different topics for a maximum of six hours credit. Prerequisites: junior/senior standing; 2.5 of cumulative grade point average; consent of Department Chair.

Quantitative Methods

**QM 260 Quantitative Methods in Finance** 3 hrs.
Introduction to mathematics of finance. Emphasis is placed on the applications of mathematical techniques to important financial concepts such as capital budgeting, measures of risk and return, investments, and market efficiency. Techniques of optimization as applied to diversification and portfolio management. Prerequisite: MTH 115 or MTH 121.

**QM 262 Quantitative Analysis I** 3 hrs.
Data presentation and computation of descriptive measures. Probability theory, probability distributions, expectations, variance, covariance, and correlation coefficient. Sampling, central limit theorem, statistical estimation, one or two sample tests of hypotheses. Prerequisite: MTH 109 or equivalent; BMA 172.

**QM 263 Quantitative Analysis II** 3 hrs.
Linear and multiple regression, correlation, analysis of variance, contingency tables, time series, decision theory, and non-parametric methods. Data analysis using statistical computer packages. Prerequisites: QM 262; MTH 115 or 121.

**QM 326 Business Forecasting** 3 hrs.
Develops basic principles and techniques of forecasting through integration of scientific and judgmental forecasting in financial applications. Objective analysis of historical data is combined with subjective insight to demonstrate how data for budgets can be developed, profits maximized, and risks reduced. Emphasis on use of forecasting by individual firms. Prerequisites: QM 263 and junior/senior standing.

**QM 364 Decision Support Systems** 3 hrs.
Deterministic and probabilistic models of management science and use of computer-based support for the decision making process. Models such as linear and integer programming, transportation and assignment problems, CPM/PERT, simulation and queueing models. Applications in a variety of business areas using the computer. Prerequisites: BMA 172 or equivalent; QM 262; junior/senior standing.

**QM 369 Topics in Quantitative Methods** 3 hrs.
Topics of special interest which may vary each time course is offered. Topic stated in current Schedule of Classes. May be repeated under different topics for a maximum of six hours. Prerequisite: junior/senior standing.

**QM 498 Independent Study in Quantitative Methods** 1-3 hrs.
Studies undertaken by academically qualified students under guidance of a faculty member. Open to Finance and Quantitative Methods Department majors only. May be repeated under different topics for a maximum of six hours. Prerequisites: junior/senior standing; 2.5 cumulative grade point average; consent of Department Chair.

Risk Management and Insurance

**RMI 315 Principles of Risk Management** 3 hrs.
The fundamental aspects of risk management and insurance (RMI). Emphasis on understanding the nature of risk assessment, control, and financing activities for organization. RMI policy issues impacting the firm (e.g., discrimination, health care and financing, environmentalism). Cross-listed as BMA 315. Prerequisite: junior/senior standing.

**RMI 365 Risk Analysis** 3 hrs.
The nature and importance of risk analysis; qualitative and quantitative risk analysis data; user-friendly approaches to constructing statistical estimates for risk; loss analysis; using risk and loss estimates in decision making and related public policy issues (e.g., fair versus unfair risk factors). Prerequisites: RMI 315; QM 262.

**RMI 440 Managing the Insurance Enterprise** 3 hrs.
Functional analysis of the operations of insurance organizations; legal organization, marketing systems, management and control, underwriting, rating, financial analysis, rate making and regulation. Prerequisite: RMI 315.

**RMI 465 Advanced Studies in Risk Management** 3 hrs.
Small teams examine various risk management scenarios and make appropriate recommendations. Students conduct a risk management review for a local small business and make appropriate recommendations. Emphasis on enhancing written and oral communication skills. Prerequisites: RMI 315; RMI 365 or 415.

**RMI 492 Independent Study or Research in RMI** 1-3 hrs.
Studies or research undertaken by academically qualified students under the guidance of a faculty member. May be repeated for a maximum of 6 semester hours. Prerequisites: RMI or ASB major and consent of RMI program director.
International Business Program

International Business Faculty: Crowe, Griffin (Program Coordinator), Highfill, Iyer, Rubash.

The international business program is interdisciplinary, integrating international studies and foreign languages with business. Supplementing the academic program are opportunities for participating in internships with international companies, study abroad programs, and internationally-oriented business outreach programs.

The objective of the international business curriculum is to provide opportunities for students to gain competence in various aspects of global business operations. In addition, a broad training incorporating international studies and foreign language will make the student better prepared to assume managerial positions with business enterprises. Most international business majors will seek employment with companies engaged in international business activities, such as exporters and multinational corporations. Other potential employers include international business intermediaries (banks, trading companies, research and consulting firms, transportation agencies, port authorities, and so on), international economic institutions, and state and federal agencies.

The need for a separate curriculum in international business is reinforced by growing internationalization and globalization of American business and interdependency of world economies. Today, businesses find themselves in intense competition with foreign companies here at home. More direct involvement in international business comes in the form of global sourcing activities, exporting, licensing and technology transfer, and foreign direct investment. A variety of small and large companies in the manufacturing, service, and agricultural sectors currently participate in international business.

Students may study international business at Bradley University in three ways. First, students may major in international business leading to an undergraduate baccalaureate degree. Others may pursue international business in addition to another major outside the Foster College of Business Administration. Still others may take as electives one or more courses in international business.

Graduation Requirements

A. International Business Major Requirements

In addition to the University and Foster College of Business Administration requirements, students enrolled in the international business major must fulfill the following requirements:

Foreign Language
200 level or above, of which 3 semesters must be in the same language .................................................. 12

International Studies
IS 103, 104 Introduction to International Studies ............... 6
Area Studies* .................................................................. 6
Africa: IS 340, 440, 448
Asia: IS 182, 385
East Asia: HIS 107, IB 204, IS 285, 318, 381
Europe: IS 330, 331
Globalization: IS 410, 475
Latin America: HIS 105, IS 322, 323
Middle East: HIS 104, IS 363
Russia/CIS: HIS 103, IS 353, 355, 359
South & Southeast Asia: IS 373


* An IS course used to satisfy the Non-Western Civilization or Social Forces and Institutions Gen. Ed. requirement may be counted toward the Area Studies requirement in International Business.

International Business
IB 306 Introduction to International Business ................. 2
IB 323 International Financial Management .................. 3
IB 390 International Monetary Economics or
   IB 391 International Trade* ......................................... 3
IB 406 International Business Senior Project ................. 1
IB 407 Management of International Markets ............... 2
IB 408 International Business Leadership .................... 1


* Satisfies the FCBA Economics elective requirement.

Cognate Elective Courses

Elective courses to be selected from Business, Foreign Language, or International Studies .................. 15
International business majors are strongly encouraged to fulfill the 15-hour elective requirement by choosing an additional course in foreign languages or international/area studies and one of the following 12- or 13-hour career-oriented business functional area emphases:

Accounting: ATG 201, ATG 301, and ATG 322 plus two courses to be selected from ATG 204, ATG 477, ATG 401 and ATG 457.

Finance: Four courses to be selected from FIN 325, FIN 327, FIN 328, FIN 421, FIN 422, FIN 423, and FIN 424.

Human Resource Management: Four courses to be selected from the following: BMA 345, BMA 355, BMA 356, BMA 357, and BMA 459.

Marketing: MTG 341, MTG 350, and two additional marketing courses

Sales: MTG 304, MTG 384, MTG 404, and MTG 420

Alternatively, a student may wish to opt for a minor in economics. (See Economics.)

In addition to the above requirements, each international business major is required to earn at least four semester hours (or the equivalent) of college credit while enrolled in one or more approved study abroad programs.

**B. Other Requirements**

1. The total number of semester hours required for the international business major is 130 hours.

2. International business majors must plan their schedules to include Introduction to International Studies I and II (IS 103 and 104) as well as two Area Studies offerings (courses dealing with Latin America, Europe, Africa, Russia, Commonwealth of Independent States, the Middle East, South and Southeast Asia, or East Asia). Problems of the Developing World (IS 275) may be taken as one of the Area Studies requirements.

   Students can fulfill their area studies requirements as part of non-Western civilization and social forces and institutions courses as long as they select those courses that are in the approved general education curriculum.

3. International business majors must complete a total of 12 semester hours of foreign language study beginning at the 200-level or above. It is recommended that students concentrate on the best proficiency possible in one foreign language, but it is possible to take 9 hours in one language and 3 hours in another.

   Those students who have previously studied a foreign language must take the placement test given by the Department of Foreign Languages. Students who place at the 300-level should consult with the chair of the Department of Foreign Languages to determine the best sequence of courses for them. These students will have the opportunity to take several of their required courses in specially designed courses such as Commercial Language, Introduction to Translation, Civilization and Culture, Spanish Interpretation, Everyday and Idiomatic French, and so on.

   International business majors especially interested in achieving an advanced level of oral proficiency in a foreign language are encouraged to spend a summer, a semester, or a year studying abroad.

   Students whose native language is not English are strongly urged to pursue twelve hours of study above the 100-level in a foreign language offered at Bradley, particularly if they already have a basic knowledge of that language. However, foreign students whose native language is not English but is one widely used in international trade may choose (with the approval of the international business coordinator) to increase their knowledge of the language and culture of the United States by completing the following curriculum in lieu of the foreign language requirement.

   A. Three hours of English language or linguistics in addition to the University 300-level writing requirement, to be selected from the following: ENG 300, ENG 301, ENG 304, or ENG 306.


   C. Six hours of American studies (only 3 hours of which may be taken per department) to be selected from: AAS 200, HIS 300, HIS 311, PLS 105, and WMS 200.

The following course sequence is recommended for international business majors. This sequence includes international business and Foster College of Business Administration requirements as well as the University general education requirements.

   **International Business majors should consult with their advisor when preparing their academic schedule.**

**Freshman Year**

**Required Courses**

<table>
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<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
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<tr>
<td>ENG 101</td>
<td>Composition</td>
<td>3</td>
</tr>
<tr>
<td>BUS 100</td>
<td>Contemporary Business</td>
<td>3</td>
</tr>
<tr>
<td>MTH 115</td>
<td>Brief Calculus with Applications I</td>
<td>4</td>
</tr>
<tr>
<td>ATG 157</td>
<td>Accounting Principles – Financial</td>
<td>3</td>
</tr>
<tr>
<td>COM 103</td>
<td>The Oral Communication Process</td>
<td>3</td>
</tr>
<tr>
<td>FL 201, 202*</td>
<td>Intermediate Foreign Language</td>
<td>6</td>
</tr>
<tr>
<td>CIV 100</td>
<td>Western Civilization</td>
<td>3</td>
</tr>
<tr>
<td>Fundamental Concepts in Science</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>PSY 104</td>
<td>Principles of Psychology: Social Forces &amp; Individual Behavior</td>
<td>3</td>
</tr>
<tr>
<td>BMA 172</td>
<td>Competency Exam</td>
<td>1</td>
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</table>

* FL is used here to represent FLF, FLG, FLJ, FLR, or FLS
## Sophomore Year

### Required Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ATG 158 Accounting Principles – Managerial</td>
<td>3</td>
</tr>
<tr>
<td>SOC 100 Sociological Perspective</td>
<td>3</td>
</tr>
<tr>
<td>IS 103, 104 Introduction to International Studies</td>
<td>6</td>
</tr>
<tr>
<td>ECO 221, 222 Principles of Micro &amp; Macroeconomics</td>
<td>6</td>
</tr>
<tr>
<td>QM 262, 263 Quantitative Analysis I &amp; II</td>
<td>6</td>
</tr>
<tr>
<td>BUS 210 Team Dynamics</td>
<td>1</td>
</tr>
<tr>
<td>FL 303 Foreign Language Composition</td>
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</tr>
<tr>
<td>FL 304 Foreign Language Conversation</td>
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</tr>
<tr>
<td>Human Values</td>
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</tbody>
</table>

## Junior Year

### Required Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fine Arts</td>
<td>3</td>
</tr>
<tr>
<td>Non-Western Civilization*</td>
<td>3</td>
</tr>
<tr>
<td>ENG 300, 301, 304, 305, or 306 Advanced Writing</td>
<td>3</td>
</tr>
<tr>
<td>BMA 342 Legal Environment of Business</td>
<td>3</td>
</tr>
<tr>
<td>BMA 352 Managing in Organizations</td>
<td>3</td>
</tr>
<tr>
<td>BMA 372 Management Information Systems</td>
<td>3</td>
</tr>
<tr>
<td>FIN 322 Business Finance</td>
<td>3</td>
</tr>
<tr>
<td>MTG 315 Principles of Marketing</td>
<td>3</td>
</tr>
<tr>
<td>IB 306 Introduction to International Business</td>
<td>3</td>
</tr>
<tr>
<td>IB 323 International Financial Management</td>
<td>3</td>
</tr>
<tr>
<td>IB 390 International Monetary Economics or</td>
<td>3</td>
</tr>
<tr>
<td>IB 391 International Trade</td>
<td>3</td>
</tr>
<tr>
<td>BUS 220 Career Planning Strategies</td>
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### Electives

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>IS 182, 240, 285, 340, or 420; or HIS 103, 104, 105, or 107.</td>
<td>3</td>
</tr>
</tbody>
</table>

*Recommended: IS 182, 240, 285, 340, or 420; or HIS 103, 104, 105, or 107.

## Senior Year

### Required Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fundamental Concepts in Science or Science and Technology in the Contemporary World</td>
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<tr>
<td>IB 406 International Business Senior Project</td>
<td>1</td>
</tr>
<tr>
<td>IB 407 Management of International Markets</td>
<td>2</td>
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<tr>
<td>IB 408 International Business Leadership</td>
<td>1</td>
</tr>
<tr>
<td>BMA 353 Operations Management</td>
<td>3</td>
</tr>
<tr>
<td>BMA 452 Strategic Management and Business Policy</td>
<td>4</td>
</tr>
<tr>
<td>Area Studies or</td>
<td>3</td>
</tr>
<tr>
<td>IS 275 Problems of the Developing World</td>
<td>3</td>
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### Electives

<table>
<thead>
<tr>
<th>Course</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Courses to be selected from Business, Foreign Language, or International Studies</td>
<td>15</td>
</tr>
</tbody>
</table>

## Study Abroad and Co-op Programs

International business majors are strongly encouraged to participate in at least one study abroad experience. The University offers an ongoing study abroad program which is described elsewhere in this catalog. For opportunities relating to participation in other overseas study programs, students should inquire with the program coordinator or the University's director of study abroad.

The business Cooperative Education/Internship Program is also described elsewhere in this catalog. Opportunities may become available for international business majors to obtain their practical experience in a position related to international business.

## Course Descriptions

### IB 101 International Intellectual & Cultural Events 1 hr.

Introduction to international events, other cultures, and the globalized nature of business environments. Presentations from various international groups on campus. Participation in international cultural events in the community. Pass/Fail.

### IB 204 Business in Chinese Culture 3 hrs. (Gen. Ed. NW)

Overview of sociocultural, religious, historical, economic, and political contexts as these impact ways that business is conducted in China. Examination of the blend of traditional value systems, Communist ideology, and global modernization as influences on contemporary commercial practices in and with China. In-country visits to observe cultural sites and business activities. Prerequisites: ECO 100 or ECO 221 (or equivalent); sophomore standing.

### IB 206 International Business Environments 1 hr.

Framework for analyzing and comparing business institutions and practices in selected world regions and/or countries with those in the United States. Application of the framework to relevant case studies or site visits to international firms and organizations. Prerequisite: six hours of business and/or economics courses.

### IB 208 Business in Mexican Culture 3 hrs. (Gen. Ed. NW)

Overview of anthropological, cultural, religious, historical, economic and political contexts in which Mexican business takes place. Examination of the blending of indigenous and European influences on modern-day Mexican commercial practices. In-country visits to observe cultural sites and commercial interactions. Prerequisites: ECO 100 or ECO 221 (or equivalent); sophomore standing.
IB 306 Introduction to International Business 2 hrs.
Contemporary international business patterns; emphasis on how international is different from domestic. Management of strategic international activities for an exporting firm or a multinational corporation. How international business is affected by countries’ social systems; the interface among nations, states, and firms conducting foreign business. Alternative ways that international business may evolve. Prerequisites: ECO 100 or 221; ECO 222; junior standing.

IB 323 International Financial Management 3 hrs.
Financial characteristics of international business. International exchange, liquidity, markets, investments, and banking, in context of historical development, environmental characteristics, economic factors, political systems, and legal constraints. Emphasis on exchange rate exposure management. Cross listed as FIN 323. Prerequisite: ATG 158; ECO 222; junior/senior standing.

IB 390 International Monetary Economics 3 hrs.
Adjustments in the world monetary economy including the balance of payments adjustments and equilibrium and disequilibrium in the foreign exchange markets. Cross listed as ECO 390. Prerequisites: ECO 100 or 222; junior standing.

IB 391 International Trade 3 hrs.
Welfare implications of international trade; balance of payments; equilibrium and disequilibrium; external and domestic policy effects on the balance of payments and welfare; international trade and financial cooperation among nations. Cross listed as ECO 391. Prerequisites: ECO 100 or 221; ECO 222; junior standing.

IB 400 Topics in International Business 1-3 hrs.
Topics of special interest which may vary each time course is offered. Topic and prerequisites stated in current Schedule of Classes. Repeatable for a maximum of 6 hours credit under different topics. Prerequisites: junior standing; consent of instructor.

IB 406 International Business Senior Project 1 hr.
Preparation of international market and mode of entry assessments by student consulting teams for small and medium-sized client firms; introduction of frameworks for developing international business plans. Prerequisites: IB 306 and senior standing.

IB 407 Management of International Markets 2 hrs.
Issues related to developing strategy, marketing plans and managing human resources in international markets; adaptation of the marketing mix to diverse national and regional economic, legal-political and cultural settings; multinational business organization and control issues. Prerequisites: IB 306, BMA 352 and MTG 315 or equivalents; senior standing. Students with credit in IB/MTG 346 may not take IB 407.

IB 408 International Business Leadership 1 hr.
Issues related to managing and leading diverse teams in multicultural national and cross national environments in both developed and emerging economies; development of international management philosophies and guidelines for adapting leadership styles in selected cultural settings. Prerequisites: IB 306 and BMA 352 or equivalents; senior standing or consent of instructor.

IB 498 Independent Study in International Business 1-3 hrs.
May be repeated for a maximum of 3 semester hours. Prerequisites: junior/senior standing and approval of international business coordinator.
Department of Marketing

FACULTY Professors Baer, Griffin, Hill; Associate Professors Bond (chair), Johlke, O’Brien; Assistant Professors Garrett, Iyer; Instructors Choate, Rottier.

Marketing is the backbone of the free enterprise system where individual firms compete to satisfy the demands for goods and services of consumers, businesses, and government. Marketing is a human process by which the successful contemporary organization discovers the needs and desires of its customers and adapts its goods and services to fulfill needs, wants, and desires. This process requires planning, research and analysis in areas such as product, pricing, promotion, and distribution.

The Curriculum in General
The Department of Marketing offers a flexible professional program with a major in marketing that also allows the pursuit of a specific curriculum path designed to prepare the individual for entry into a marketing career area. This thorough background in general marketing techniques and the opportunity to pursue a marketing specialization are further enhanced by provision of a variety of opportunities to receive practical business and marketing experience. Through courses such as MTG 304, 341, 381, 480, and 490 as well as a required College course, BMA 452, the student can gain valuable experience in such areas as marketing research, advertising, marketing strategy, and sales. This form of learning can give more meaning to the academic work and help to develop a greater appreciation for the value of marketing.

Marketing Major Requirements
To major in marketing, a student must earn a minimum of 24 semester hours credit in marketing courses with the following requirements:

1. Required courses:
   MTG 205 Marketing Presentations .................................. 1 1/2
   MTG 315 Principles of Marketing .................................... 3
   MTG 341 Marketing Research I ......................................... 3
   MTG 490 Managerial Marketing ........................................ 3

2. Students may count a maximum of 3 credit hours of 100-200 level marketing courses toward the 24 semester hours in marketing.

3. Students must obtain a minimum grade average of “C” in their marketing courses, as well as complete the University and College requirements. Students will also be required to take, in residence, a minimum of 9 semester hours of marketing courses beyond MTG 315.

Concentration in Professional Selling
The concentration requires 13.5 hours of specific coursework in addition to those required for the major, but does not require hours beyond the major’s elective requirements.

MTG 304 Professional Selling ........................................... 3
MTG 384 Sales Management ............................................. 3
MTG 404 Advanced Professional Selling ............................ 3
MTG 420 Business Marketing ............................................ 3
MTG 493 Experiential Learning/Sales ............................ 1.5

13.5

Career Paths
The curriculum flexibility and diversity within the marketing program allow the individual to specialize in a particular marketing area. The marketing specialization areas shown below identify suggested elective courses most useful to a particular specialization. Regardless of electives chosen, each student must satisfy the marketing major requirements outlined in the previous section.

Advertising Specialization
Suggested Marketing Electives:
MTG 304 Professional Selling
MTG 350 Consumer Behavior
MTG 381 Integrated Marketing Communications
MTG 405 Strategic Advertising Cases
Other Suggested Courses:
ART 305 Editorial Design
COM 300 or 325
PSY 308 Social Psychology

Marketing Research Specialization
Suggested Marketing Electives:
MTG 350 Consumer Behavior
MTG 360 Product and Price Strategy
MTG 400 Topics in Marketing
MTG 441 Marketing Research II
MTG 492 Independent Study or Research in Marketing
Other Suggested Courses:
An additional advanced writing course beyond the 300-level university requirement; ENG 305 Technical Writing or ENG 306 Business Communication is encouraged.
BMA 374 Database Management and Administration or QM 326 Business Forecasting
PSY 415 Intermediate Statistics for Psychology

**Marketing Management Specialization**

**Suggested Marketing Electives:**
- MTG 346 International Marketing
- MTG 360 Product and Price Strategy
- MTG 370 Marketing Channels or MTG 309 Marketing Logistics
- MTG 384 Sales Management
- MTG 420 Business Marketing

**Other Suggested Courses:**
- ECO 332, 333, or 335
- BMA 372 Management Information Systems
- PSY 310 Industrial and Organizational Psychology

**Retailing Specialization**

**Suggested Marketing Electives**
- MTG 304 Professional Selling
- MTG 350 Consumer Behavior
- MTG 360 Product and Price Strategy
- MTG 370 Marketing Channels or MTG 309 Marketing Logistics
- MTG 393 Retailing
- MTG 410 Services Marketing

**Other Suggested Courses**
- FCS 140 Introduction to Family and Consumer Sciences or FCS 336 The History of Fashion
- BMA 357 Leadership and Interpersonal Behavior or BMA 382 Entrepreneurship

**Industrial Marketing/Sales Management Specialization**

**Suggested Marketing Courses:**
- MTG 304 Professional Selling
- MTG 346 International Marketing
- MTG 360 Product and Price Strategy
- MTG 370 Marketing Channels or MTG 309 Marketing Logistics
- MTG 384 Sales Management
- MTG 420 Business Marketing
- MTG 492 Independent Study or Research in Marketing

**Other Suggested Courses:**
At least one speech course beyond the 3-hour University requirement; COM 305 The Persuasive Process is particularly recommended.

**Suggested Course Sequencing**

A recommended course sequence for marketing, Foster College of Business Administration, and basic skills courses follows. Elective courses should be chosen with care to ensure that the University general education and Foster College of Business Administration requirements are met.

**Freshman Year**

- ATG 157 Accounting Principles ................................................. 3
- ENG 101 English Composition ............................................... 3
- COM 103 The Oral Communication Process ......................... 3
- MTH 115 Brief Calculus with Applications I ......................... 4
- BUS 100 Contemporary Business ....................................... 3

**Recommended Electives:**
- General Ed, behavioral sciences, or free electives........... 12
- MTG 150 Marketing in a Dynamic World ......................... 1 ½
- BMA 172 / Competency Exam ........................................ 1

**Sophomore Year**

- ATG 158 Accounting Principles ................................................. 3
- BUS 210 Team Dynamics ..................................................... 1
- ECO 221, 222 Principles of Economics ................................ 6
- MTG 205 Marketing Presentations ...................................... 1 ½
- QM 262 Quantitative Analysis I ........................................ 3
- QM 263 Quantitative Analysis II ........................................ 3
- General Ed, Behavioral Sciences, or free electives .......... 15

**Junior Year**

- BUS 220 Career Planning Strategies ..................................... 1
- ENG 300, 301, 304, 305, or 306 Advanced Writing .......... 3
- MTG 315 Principles of Marketing ........................................ 3
- MTG 341 Marketing Research ............................................... 3
- Marketing Electives ......................................................... 6
- FIN 322 Business Finance .................................................. 3
- IB 306 Introduction to International Business .............. 2
- BMA 342 Legal Environment of Business ..................... 3
- BMA 352 Management and Organization Theory ............. 3
- BMA 372 Management Information Systems ................... 3

**Senior Year**

- BMA 353 Operations Management ...................................... 3
- BMA 452 Strategic Management and Business Policy ........ 4
- Economics Jr.-Sr. Elective .................................................. 3
- MTG 490 Managerial Marketing ........................................ 3
- Marketing Electives ......................................................... 9
- General Education and free electives ......................... 9

**Total Credits:** 30

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Bradley University
Minors in Marketing
Fifteen hours of course work are required for the minor.

Transfer policies for minors are the same as those for Foster College of Business Administration majors. Grades of "D" in business courses will not be accepted as transfer hours in the Foster College of Business Administration, but may be counted by the University. Prior approval of transfer credit must be secured from the chair of the Department of Marketing.

A minimum cumulative GPA of 2.00 must be earned in all courses taken at Bradley and in the minor.

Marketing minors whose major is also from the Foster College of Business Administration must have at least 12 hours in courses that are unique from those used to fulfill their major requirement.

The marketing minors are not open to marketing majors. No student may minor in marketing and professional selling.

I. Marketing Minor
While marketing majors have a variety of in-depth exposures to this important and productive field, other students at Bradley may benefit from marketing courses as well.

The marketing minor enhances other programs of study and provides career flexibility. Students with a minor in marketing will:
1. Benefit from enhanced employment opportunities;
2. Develop an understanding of the marketing and customer issues applicable to all firms; and
3. Learn communication skills that will facilitate cross-functional relationships with marketing personnel.

Marketing Minor Requirements
ECO 100 Introduction to Economics or
ECO 221 Principles of Microeconomics..................3 hrs.
MTG 315 Principles of Marketing..........................3 hrs.
Marketing Electives (numbered 300 or above)..........9 hrs.

II. Minor in Professional Selling
The minor in professional selling will add additional career choices for students in a variety of majors.

Minor in Professional Selling Requirements
MTG 304 Professional Selling................................3 hrs.
MTG 315 Principles of Marketing..........................3 hrs.
MTG 384 Sales Management..................................3 hrs.
MTG 404 Advanced Professional Selling................3 hrs.
MTG 420 Business Marketing................................3 hrs.

Course Descriptions
MTG 150 Marketing in a Dynamic World 1½ hrs.
Introduction to various marketing careers as they relate to key issues in marketing: new product development, advertising, customer service, marketing research, public relations, distribution/logistics, professional selling and retail management. An emphasis is placed on experimental learning and the development of presentational, team building, and other marketing-related skills. Prerequisites: freshmen or sophomore standing only; or consent of department chair.

MTG 205 Marketing Presentations 1½ hrs.
Conducting background research, developing an effective marketing presentation, exposure to presentation software packages, and making oral marketing presentations; sales presentations, background information on specific companies, competitive analysis, target market presentations, presentation of a marketing plan. Prerequisites: COM 103; marketing majors only; sophomore or junior standing only; or consent of department chair.

MTG 304 Professional Selling 3 hrs.
Selling-buying process. Selling strategies from the perspective of a professional customer problem-solving approach. Practical exposure to selling concepts, problems, and techniques in a variety of selling situations. Prerequisite: junior standing.

MTG 309 Marketing Logistics 3 hrs.
Examines the inbound system of materials management and procurement and the outbound system of distribution channels and customer service. Includes the trade-off between cost and service; the warehousing and control of inventory; industrial packaging; materials handling; order processing; and the distribution of finished goods to customers. Prerequisites: junior standing.

MTG 315 Principles of Marketing 3 hrs.
Elements of a comprehensive marketing plan and their inter-relationships. Determination of product, pricing, promotion, and channel strategy: analysis, planning, and control of marketing strategy in a socially and ethically responsible manner. Emphasis on improving decision making in a dynamic external environment. Prerequisites: junior standing.

MTG 330 Financial Services Marketing 3 hrs.
Examination of the increasing use of marketing techniques in the financial services industry and the changing environment of financial services. Course is structured around the core marketing principles of buyer behavior, segmentation, product development, distribution, pricing, and promotion, as well as topics such as relationship marketing, customer loyalty, and technological developments. Designed for students with an interest in banking, insurance, securities, and other financial services industries. Cross-listed with FIN 330. Prerequisites: FIN 322, MTG 315.
MTG 341 Marketing Research I 3 hrs.
Systematic gathering, recording, and analysis of data related to marketing of goods and services. Choice of research design, methods of data collection, survey sampling, analysis and interpretation of data, and preparing the research report. Prerequisites: QM 263 or consent of department chair; MTG 315.

MTG 346 International Marketing 3 hrs.
Marketing decisions, strategies, and operations of companies in international business. Elements of an integrated global marketing program. Foreign market potential analysis; alternative entry and expansion strategies; standardization vs. adaptation of product and promotion strategies; pricing, distribution, and sourcing strategies in global operations. Prerequisites: MTG 315. A student may not receive credit for both MTG 346 and IB 407 and 408.

MTG 350 Consumer Behavior 3 hrs.
Behavioral science concepts applicable to the understanding of consumer decision making: personality, perception, and group and cultural influences. How these concepts can be used to develop more effective marketing strategies. Prerequisite: MTG 315.

MTG 360 Product and Price Strategy 3 hrs.
Managerial aspects of pricing and product policies and strategies. Methods used and factors considered in developing and updating product line and pricing decisions in industrial and consumer products. Pricing and product line objectives, product planning and evaluation, establishing product line distribution, environmental factors affecting product and pricing strategies, and quantitative aspects of product line and pricing decisions. Prerequisites: QM 262, MTG 315.

MTG 370 Marketing Channels 3 hrs.
Economic, managerial, and behavioral dimensions of marketing channels; interdependency of channels and other elements of marketing mix; roles of control relationships in channel systems; importance of physical distribution to effective functioning of channels; managerial tools used in measuring and controlling channel activities. Prerequisite: MTG 315.

MTG 381 Integrated Marketing Communications 3 hrs.
Introduction to advertising and promotions management from an integrated marketing communications perspective. Promotional techniques: advertising, sales promotion, direct marketing, publicity/public relations, personal selling, point-of-purchase communications. Techniques explored through the context of planning, developing, and implementing comprehensive promotional campaigns. Regulatory, social, and economic factors that influence the firm’s promotional activities. Prerequisites: MTG 315.

MTG 384 Sales Management 3 hrs.
Analysis of sales management and decisions made by the sales force manager. Structure and organization of the sales force; nature of the sales job; selling in marketing theory; selection of sales personnel; sales training program; problems in compensation, supervision, and stimulation of sales personnel; analysis of territories and customers; sales forecasting and quotas; ethical problems in sales management; evaluating sales performance. Prerequisite: MTG 304 or MTG 315.

MTG 393 Retailing 3 hrs.
Retailing from the management perspective. Emphasis on retail policies and organization, operation of buying and selling functions, merchandise control, store systems, personnel management, retail accounting, and expense control. Prerequisite: MTG 315.

MTG 400 Topics in Marketing 3 hrs.
Topics of special interest which may vary each time course is offered. Topic stated in current Schedule of Classes. May be repeated, for up to 6 hours credit in nonredundant topics. Prerequisites: MTG 315, junior standing, and consent of department chair.

MTG 404 Advanced Professional Selling 3 hrs.
Advanced study of professional selling techniques focusing upon specific knowledge areas and skills that contribute to competitive advantage, long-term customer relations, and customer satisfaction. Emphasis is placed upon students developing functional sales experiences, both individually and in group settings. Prerequisites: MTG 304.

MTG 405 Strategic Advertising Cases 3 hrs.
In-depth, strategic perspective on advertising management. Students will learn how to manage, facilitate, and direct the advertising function. A special emphasis will be placed on developing advertising strategies. The case method will be used with real-world situations. Prerequisite: MTG 315.

MTG 410 Services Marketing 3 hrs.
In-depth analysis of the issues that face marketers in service organizations such as banks, hospitals, hotels, airlines, and nonprofit institutions. Unique aspects of services marketing strategy development. Prerequisites: MTG 315.

MTG 420 Business Marketing 3 hrs.
Comprehensive examination of nature, structure, and distinguishing characteristics of marketing to and between organizations. Unique aspects of organizational decision-making and buying from the seller’s perspective. Exploration of requirements to manage strategy development, interfirm relationships, e-commerce, and innovation processes in firms marketing to organizations. Prerequisites: MTG 315 or consent of department chair.
MTG 440 Community Service Marketing  
Practicum 1-3 hrs.  
Field experience in marketing. In-depth practicum in a variety of local community service and nonprofit organizations. Use of services marketing principles to solve applied problems. May be repeated for a maximum of 3 hours credit. Pass/Fail. Prerequisites: MTG 315, 410; consent of department chair.

MTG 441 Marketing Research II 3 hrs.  
Students consult an area business on marketing research projects addressing the firm's problem areas. Emphasis on practical use of concepts and tools presented in MTG 341. Prerequisite: MTG 341.

MTG 490 Managerial Marketing 3 hrs.  
Systems and information needs of marketing management. Emphasis on integration of tools of information systems with knowledge of marketing in formulating and solving marketing problems. Impact of marketing decisions on key performance measures illustrated by cases, marketing models, and simulation. Prerequisites: MTG 315, 341; senior standing.

MTG 492 Independent Study or Research in Marketing 1-3 hrs. each course  
Studies or research undertaken by well-qualified, advanced students under the guidance of a faculty member. Prerequisites: consent of department chair.

MTG 493 Experiential Learning in Professional Sales 1-3 hrs.  
Advanced marketing or sales student experience in the field of professional selling. Both practical and academic components are included. The practical component will often take the form of an in-depth study of a sales-related topic, an experience in sales with a company, a research project, a sales simulation, or a blend of these or other elements that will be tailored to each individual student's needs. Repeatable up to 3 hours. Prerequisites: Permission of department chair; MTG 304.
You may click on a link below to navigate to that section.

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Slane College of Communications and Fine Arts  86

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Multimedia Program  105
Department of Music  108
Department of Theatre Arts  115
Mission
The Slane College of Communications and Fine Arts aspires to offer outstanding regional, national, and international programs in art, communication, multimedia, music, and theatre arts. The College is committed to:

- a humane, equitable, and intellectually stimulating environment for faculty and students;

- dynamic academic programs that prepare students and faculty for opportunities in the new century;

- cultural diversity among students and faculty;

- creative diversity in academic and cocurricular programs;

- innovative collaborative initiatives with colleagues throughout the world;

- collaboration of students and faculty on projects in research and creative production;

- international study and scholarship;

- the technology to support College programs; and

- external interactions that provide professional development and career opportunities for faculty and students.

Academic Programs
The programs of the Slane College of Communications and Fine Arts are unified by their respect for imagination and the creativity that enables its communication; an understanding of the relationships among talent, skill, and practice; and a commitment to the exploration of interrelationships among the disciplines of our college. At the same time we recognize the great strength in the diversity of our disciplines—from the personal to the global dimensions of modern communication and to the infinite variety of artistic expression.

The College offers two principal types of degrees. Professional degrees include the Bachelor of Fine Arts and the Bachelor of Music, which require one-half to two-thirds of the course credit to be in the major discipline. These intensive programs are considered preparation for direct entrance to professional employment or graduate study. Liberal studies programs are the Bachelor of Arts and the Bachelor of Science degrees, which require one-third to one-half of the total course credit toward the degree to be in the major. The "Graduation Requirements" section below describes the distinctions between the B.A. and B.S. degrees. These programs give the student a substantial focus in the major with firm grounding in basic skills and a broad university education.

Cocurricular Activities
Academic programs in the College are enhanced by cocurricular activities that provide important performance and publication experience for student majors and for nonmajors with avocational interests in the arts and communication. Music ensembles and recitals, an extensive gallery exhibition program, theatre productions, preprofessional media organizations, the Mock Trial Team, and the national champion Bradley speech team serve as laboratory experiences in which the work of the classroom is applied and presented to the public.

Faculty
The faculty members of the College are dedicated to quality teaching enhanced by mentoring and to scholarly research and creative production reinforced by collaboration with colleagues and students. Faculty members are active professionals in their disciplines who are dedicated to the precept that students in the College must blend academic classroom experiences with creative opportunities in performance, the laboratory, or the studio.

Facilities
Each department in the College has an excellent, dedicated facility that supports educational, creative, and scholarly activities. The Department of Art is housed in the Heuser Art Center, a well-equipped building with superb classrooms, studios, and gallery. The Department of Music is housed in the newly renovated Constance Hall and Dingeldine Music Center, which includes the beautiful Eleanor Sikes Peters Recital Hall. The Hartmann Center for the Performing Arts houses the Department of Theatre Arts and includes the main-stage Meyer Jacobs Theatre, a laboratory theatre, scenery and costume shops, and a gallery. The Caterpillar Global Communications Center houses the Department of Communication, the Multimedia Program, the College offices, and the Office of International Programs. It features state-of-the-art audio, video, computer, and worldwide communication technology.
**Accreditation**
The program in art is accredited by the National Association of Schools of Art and Design (NASAD). The program in music is accredited by the National Association of Schools of Music (NASM). The program in theatre arts is accredited by the National Association of Schools of Theatre (NAST).

**Admission Requirements**
The admission requirements for the College are as follows:
1. The University general admissions requirements, as indicated elsewhere in this catalog.
2. Specific admission requirements for each program, as given in the individual departmental sections.

**Transfer Requirements**
1. Transfer students who are candidates for a degree from this College must earn at least nine hours in the major field at Bradley.
2. Courses for a major in the College which are transferred to Bradley University from another institution with a grade of “D” will not be accepted by the College of Communications and Fine Arts. As a result, the student may need more than 124 hours to graduate.

**Graduation Requirements**
To complete a degree in the Slane College of Communications and Fine Arts, a student must satisfy the University and College requirements as well as the specific major requirements.

**University Requirements**
Courses which satisfy the following requirements are listed in the general education section of the catalog and in the Bradley Schedule of Classes.

**General Education**
- English Composition .......................................................... 6
- Speech (COM 103) .............................................................. 3
- Mathematics ........................................................................ 3
- Western Civilization ............................................................. 3
- Non-Western Civilization ..................................................... 3
- Fine Arts............................................................................... 3

Students majoring in art, music or theatre may not apply courses in their major to satisfy this requirement.

- Human Values ..................................................................... 3
- Social Forces and Institutions ............................................. 6
- Science and Technology ..................................................... 6

Total required hours of general education 36

**Bachelor of Arts**
All candidates for the Bachelor of Arts degree must present credit for two years of college-level foreign language or its equivalent.

**Bachelor of Science**
All candidates for the Bachelor of Science degree must successfully complete at least 6 hours of courses selected from physical and natural science, mathematics, computer science, statistics, or quantitative methods in addition to the hours used to fulfill the University general education requirements.

**Other University Requirements**
1. A minimum of 124 semester hours
2. 40 junior-senior semester hours (courses numbered 300 or above)
3. 30 earned residence hours
4. A minimum cumulative grade point average of 2.00 based upon courses taken at Bradley University.
5. 24 of the last 30 semester hours must be earned in residence at Bradley.
6. It is the student’s responsibility to satisfy all University academic, financial, and administrative requirements and procedures as outlined in the catalog.
7. Students who maintain continuous enrollment and who complete work toward the baccalaureate degree within five years from the date of entry may graduate under either the catalog in effect at the time of entrance or under the catalog in effect at the time of graduation.
8. A change in major may mean meeting new requirements in force at the time of the change as a condition for acceptance into that major. Students whose work has been interrupted for one or more semesters may be held to requirements in effect at the time of their re-enrollment.

**College Requirements**
1. The required courses and grade point average in the major are stated in the individual departmental sections of this catalog.
2. Approval for off-campus or correspondence study: Students electing to take courses at another accredited institution to apply toward graduation requirements assume the responsibility for the transferability of the credit. Before transfer credit can be posted to the transcript, permission must be obtained from the appropriate department chair and the dean of the College. The student is also responsible for requesting an official transcript be sent to the Registrar’s Office once the course is completed.
3. As in any academic program, revisions are being made continually; students should consult the department chair or advisor about current program requirements.
**Teacher Certification**

To be eligible to teach in the public schools, a student must obtain a certificate. Teacher certification programs at Bradley University are approved by the Illinois State Board of Education. Students seeking certification should be certain to have an advisor in the department of the major as well as in teacher education. While a student ordinarily may graduate and be certified under the University catalog requirements in effect at the time the student becomes a teacher education candidate, the Illinois State Board of Education may mandate changes in standards of approved teacher education programs. This may require students to modify their original degree programs to be eligible for certification upon completion of graduation requirements. Students should refer to the section of this catalog containing information about Department of Teacher Education requirements.

**Global Scholars Program**

Students enrolled in the Slane College of Communications and Fine Arts have the unique opportunity to earn the designation Global Scholar-International Option in recognition of achievement in global studies. The Global Scholar-International Option may be earned in conjunction with a degree in art, communication, multimedia, music, and theatre arts. Requirements for program participation will not require additional financial expense and will not add to total credits necessary for graduation. The Global Scholar-International Option provides:

**Recognition:**
- Formal recognition by the dean of the college and citation at the Slane College of Communications and Fine Arts awards ceremony.
- Global Scholars recognition on your DARS and notation on your official university transcript.

**Requirements:**
- Courses: select one course from the four General Education categories of Fine Arts, Human Values, Non-western Civilization and Social Forces from an approved list of courses with an international focus or content.
- Language: complete at least one semester of foreign language in residence at Bradley.
- Seminars: complete two one-semester-hour Global Scholar seminars offered by faculty proficient in a variety of international topics. Seminars are offered each semester.
- On-campus activities: attend social and cultural activities with guest artists and speakers, Bradley alumni, and international students designed to enhance international understanding.
- International Study Abroad: participate in an approved international study experience selected from ensemble travel, international internships, or Bradley International Study Abroad programs.

**Minor in Fine Arts**

The College offers a minor in fine arts that includes courses in the appreciation, history, and practice of the arts. The minor is intended for students with an interest in the fine arts who would benefit from an approach encompassing art, music, and theatre. Students will find the minor a way to discover – or rediscover – the importance of the arts in society and in their personal lives.

**Course Requirements:**

1. **Appreciation of the Arts**
   
   Select two of the following courses in addition to the general education fine arts requirement.
   
   ART 131 Art Appreciation .......................................................... 3
   MUS 109 Music Appreciation .................................................. 3
   THE 121 Creative Process of Theatre, or
   THE 131 Introduction to Theatre ............................................... 3
   
   Total Hours Appreciation of the Arts 6

2. **History and Practice of the Arts**
   
   a. History (limit 2 courses selected from the following):
      
      ART 140, 142, 243, 245, 250, 260, 270, 350, 360, 380, 390, or 470 ........................................ 3
      MUS 203, 235, 236, 335, 336 ................................................. 3
      THE 336, 337, or 338 ......................................................... 3
   
   b. Practice of the Arts (minimum 6 hours)
      
      Select in consultation with advisor for fine arts minor from studio arts courses, music performance courses, and theatre performance and production courses.
      
      Total Hours of History and Practice 12

3. **CFA 421 Art and the Creative Imagination .......................... 3

Total Hours Required for Minor 21

**Other Requirements:**

1. Courses taken to satisfy the fine arts general education requirement or requirements in a student’s major or other minor may not apply to this minor.
2. Six semester hours must be at the 300 level or above.
3. Courses are to be selected in consultation with the fine arts minor advisor.

**Cooperative Education/Internship Program**

The College participates with employers in an optional Cooperative Education/Internship Program. Students either alternate periods of full-time study with full-time employment or have part-time employment while attending classes.
Course Descriptions

CFA 100 Intellectual and Cultural Events 1 hr.
Attendance at a variety of intellectual and cultural events approved by the University’s Intellectual and Cultural Activities Committee. Up to two hours of credit can be earned.

CFA 101 Arts and Ideas Seminar 1 hr.
Seminar on selected intellectual and artistic topics which may vary each time the course is offered. Topic stated in current Schedule of Classes. May be repeated under a different topic. Maximum of three hours credit may be earned.

CFA 211, 212 Dance 1-2 hrs.
Dance lessons for qualified students on campus or off campus; audition may be required. Each may be repeated for a maximum of eight hours. Prerequisite: consent of instructor.

CFA 300 CFA International Option Seminar 1 hr.
Seminar topics of special interest relevant to enhancement of study abroad and integration of International Option certificate program. Topics may vary each time course is offered. May be repeated under different topics for a total of 2 semester hours. Topic and prerequisites stated in current Schedule of Classes. Prerequisite: permission of seminar coordinator.

CFA 301 Cooperative Education/Internship in Communications and Fine Arts 0-6 hrs.
Appropriately supervised cooperative education or internship experience in communications and fine arts. May be repeated for a maximum of 6 hours credit. Maximum 6 hours of Co-op or internship credit allowed toward graduation hours. Pass/fail. Prerequisites: sophomore standing, 2.0 Bradley overall grade point average; consent of CFA Co-op and internship coordinator.

CFA 305 Study Abroad Seminar 1 hr.
Study of the cultural and historical contexts of study abroad site. Prerequisite: registration for study abroad interim session.

CFA 421 Art and the Creative Imagination 3 hrs. (Gen. Ed. FA)
Examination of various artistic renderings of unified or similar ideas, objects, and events. Comparison and contrast of the creative imagination and processes used in the making of useful and fine arts, time and space arts, and literary and performing arts.

CFA 500 Research Methods in Speech and Theatre Arts 3 hrs.
Problems and principles in conducting original and creative research, investigation, and reporting in rhetoric and public address, theatre arts, and oral interpretation. Prerequisite: consent of chairperson involved.
Department of Art

FACULTY  Professors Gillespie, Krainak (chair), Rowe; Associate Professors Carlson, Linn, Stolz, Will; Assistant Professors Brammeier, Glover, Warwick.

Accreditation
The Department of Art is accredited by the National Association of Schools of Art and Design (NASAD).

Mission
The Department of Art faculty and students endeavor to maintain an attitude and an environment in which the pursuit of a degree is a commitment to a way of life that embodies creative thought processes and the production of objects of art. The curriculum and the faculty who teach are focused on nurturing the fine arts in a wide variety of visual art media. Students are encouraged to dedicate themselves to academic excellence while working with skilled artistry and employing visual literacy, within an atmosphere of creative freedom. Through a balanced and consistent student/instructor relationship, coupled with both traditional and advanced technology, the faculty assist students in realizing their goals as aspiring professional artists.

Degrees Offered
Undergraduate studio and teacher preparation degrees offered by the Department of Art are the B.A., B.S., and the B.F.A. In undergraduate art history studies, the B.A. is offered. The department also offers both the M.A. and M.F.A. degrees in studio art (please refer to the Graduate Catalog for information on admission and general requirements for these).

Admission Requirements
1. Admission to a program of study in the Department of Art begins with meeting the application requirements as provided by Bradley University for general admission.
2. Students are accepted into the Department of Art as art majors receiving a Bachelor of Arts, Bachelor of Science, or Bachelor of Fine Arts degree.
3. Students who wish to transfer from other institutions or from other departments at Bradley must submit a portfolio for admission to the Department of Art. Please contact the Office of Undergraduate Admissions for information regarding content, submission dates, format, and mailing address. All students must have an overall minimum grade point average of 2.5.

4. Upon completion of their first year of study, art majors declare an area of concentration from the following: ceramics, drawing, graphic design, painting, photography, printmaking, and sculpture; or in art history or art education.
5. Admission to the BFA degree program requires a review of the student’s work by the art faculty. A student may make application for the BFA program beginning the second semester of the sophomore year and no later than the second semester of the junior year.
6. All of the courses which are required at the 100 level must be completed before a candidate may be accepted into the BFA program. A minimum GPA of 3.0 is required in art at the time of application.

Studios
Studios are open to students for extended periods of time when not occupied by classes. Policies and procedures for studios are established by the studio professor and are posted in the studio.

Non-Art Majors
Interested non-art majors may also take studio courses offered by the Department of Art. Please contact the chair.

Major Requirements
General Requirements:
1. Art majors must complete the studio and art history foundation core requirements in sequence before proceeding on to advanced course work. The foundation core prerequisites, 100- and 200-level courses, must also be taken in sequence before advancing to higher-level course work. The Department of Art enforces prerequisites throughout the program.
2. The foundation core courses and sequence for art majors are listed in the degree requirement descriptions below. Art majors must follow the recommended prerequisite sequence in order to thoroughly prepare for advanced and upper-division course work. The curriculum for art majors contains 25 hours of foundation core courses—19 hours of studio courses and 6 hours of art history courses. This material for undergraduate art majors, BFA, BA, BS options, is specified in the catalog. Students who do not follow proper prerequisites jeopardize their progress in the curriculum and will be dropped from courses if prerequisites are not met.
3. Candidates for the BFA degree are required to participate in a senior exhibition. All students participating in a senior thesis exhibition must have successfully completed ART 420 and be registered for ART 421 during the semester of their thesis exhibition.

4. An overall grade point average of 2.5 must be maintained in the major.

5. The department reserves the right to retain some student work for the University permanent collection. Films produced by the department are retained by the University at the discretion of the instructor.

Course Requirements:

**Bachelor of Fine Arts Degree with a Major in Studio Art**

<table>
<thead>
<tr>
<th>Art History (minimum 15 hrs.)</th>
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</thead>
<tbody>
<tr>
<td>Art History Core</td>
<td>6</td>
</tr>
<tr>
<td>ART 140 Survey of Art History I</td>
<td>3</td>
</tr>
<tr>
<td>ART 142 Survey of Art History II</td>
<td>3</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Elective Courses in Art History*</th>
<th>9</th>
</tr>
</thead>
</table>

*In place of an art history elective, students with a photography concentration are required to take ART 390 History of Photography and students with a graphic design concentration are required to take ART 240, Design History Survey.*

<table>
<thead>
<tr>
<th>Studio (minimum 66 hrs.)</th>
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<tbody>
<tr>
<td>Studio Core</td>
<td>19</td>
</tr>
<tr>
<td>ART 101 Drawing I</td>
<td>3</td>
</tr>
<tr>
<td>ART 102 Drawing II</td>
<td>3</td>
</tr>
<tr>
<td>ART 105 Two-Dimensional Design</td>
<td>3</td>
</tr>
<tr>
<td>ART 106 Three-Dimensional Design</td>
<td>3</td>
</tr>
<tr>
<td>ART 220/221 Professional Lecture Series</td>
<td>1</td>
</tr>
<tr>
<td>ART 230 Life Drawing</td>
<td>3</td>
</tr>
<tr>
<td>MM 113 Introduction to Multimedia</td>
<td>3</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Foundation Core Requirements and Sequence:</th>
<th></th>
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</thead>
<tbody>
<tr>
<td><strong>First Semester:</strong> ART 101/ART 105/ART 140</td>
<td></td>
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<tr>
<td><strong>Second Semester:</strong> ART 102/ART 106/ART 142</td>
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</tr>
<tr>
<td><strong>Third Semester:</strong> ART 220/ART 230 or MM 113</td>
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</tbody>
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Plus art history and additional studio area concentration courses

<table>
<thead>
<tr>
<th>Fourth Semester</th>
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<tr>
<td>ART 221/ ART 230 or MM 113</td>
<td></td>
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</tbody>
</table>

Plus art history and additional studio area concentration courses

**Area of Concentration**

Six studio courses in one of the following areas of concentration: ceramics, drawing, graphic design**, painting, photography**#, printmaking, sculpture (see below for further information on areas of concentration).

**Required Studio Courses**

| 15 |

Five courses from areas other than the student’s concentration area, including at least one from the 2-D areas and at least one from the 3-D areas.

**Studio Electives**

| 15 |

**Because 21 hours of studio (instead of 18) are required in the photography and graphic design concentrations, the number of free studio electives for the BFA in those concentrations is reduced by 3 hours.

| Total Art History Requirements | 15 |
| Total Studio Requirements      | 67 |
| ART 420 B.F.A. Seminar I       | 2  |
| ART 421 B.F.A. Seminar II      | 1  |

**Total Hours Required for Major**

| 85 |

**Bachelor of Arts Degree or Bachelor of Science Degree with a Major in Studio Art**

<table>
<thead>
<tr>
<th>Art History (12 hrs.)</th>
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<tbody>
<tr>
<td>Art History Core</td>
<td>6</td>
</tr>
<tr>
<td>ART 140 Survey of Art History I</td>
<td>3</td>
</tr>
<tr>
<td>ART 142 Survey of Art History II</td>
<td>3</td>
</tr>
</tbody>
</table>

| Elective courses in art history* | 6     |

*Students with a photography concentration are required to take ART 390 History of Photography in place of an art history elective. Because 21 hours of studio are required in the photography concentration (instead of 18), the number of free studio electives is reduced by 3 hrs.

<table>
<thead>
<tr>
<th>Studio (46 hrs.)</th>
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</thead>
<tbody>
<tr>
<td>Studio Core</td>
<td>19</td>
</tr>
<tr>
<td>ART 101 Drawing I</td>
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<tr>
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<td>3</td>
</tr>
<tr>
<td>MM 113 Introduction to Multimedia</td>
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<td></td>
</tr>
<tr>
<td><strong>Second Semester:</strong> ART 102/ART 106/ART 142</td>
<td></td>
</tr>
<tr>
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Plus art history and additional studio area concentration courses

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<th>Fourth Semester</th>
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<tbody>
<tr>
<td>ART 221/ ART 230 or MM 113</td>
<td></td>
</tr>
</tbody>
</table>

Plus art history and additional studio area concentration courses
Area of Concentration .................................................. 18
Six courses in one of the following areas of concentration:
ceramics, drawing, graphic design, painting, photography*,
printmaking, sculpture (see below for further information
on areas of concentration).

Studio Electives .......................................................... 9
Courses from areas other than the student’s concentration
area, including at least one from the 2-D areas and at least
one from the 3-D areas.

Total Art History Requirements ...............................12
Total Studio Requirements ........................................... 46
Total Hours Required for Major .................................58
Areas of Concentration – 18 hrs.*
(sselect courses in consultation with advisors)
* Students with a photography concentration must take
each of the listed photography courses for a total of 21
hours.

Ceramics Concentration
ART 201 Introduction to Ceramics ...............................3
ART 202 High and Low Fire Ceramics .........................3
ART 301 Ceramic Production .................................3-6
ART 302 Advanced Ceramics .................................3-6
ART 401 Ceramic Portfolio Design Studio .....................3-6
ART 402 Ceramic Sculpture .................................3-6

Drawing Concentration
ART 203 Drawing Studio I .........................................3
ART 204 Drawing Studio II .........................................3
ART 303 Intermediate Drawing I ...............................3-6
ART 304 Intermediate Drawing II ...............................3-6
ART 403 Advanced Drawing I ..................................3-6
ART 404 Advanced Drawing II ..................................3-6

Graphic Design Concentration
ART 205 Typographic Design .................................3
ART 206 Graphic Design Methods and Processes .......3
ART 305 Editorial Design ..................................3
ART 306 Corporate Standards and Branding ............3
ART 405 Graphic Information Systems .................3
ART 406 Graphic Design Portfolio .........................3
ART 496 BFA Graphic Design Senior Project ..........3

Painting Concentration
ART 209 Beginning Painting I ................................3
ART 210 Beginning Painting II ................................3
ART 309 Intermediate Painting I .............................3-6
ART 310 Intermediate Painting II .............................3-6
ART 409 Advanced Painting I .................................3-6
ART 410 Advanced Painting II .................................3-6

Photography Concentration
ART 225 Basic Black & White Photography ..............3
ART 228 Basic Digital Photography .......................3
ART 325 Zone System for 35mm Camera ..............3-6
ART 326 Manipulated Image .................................3-6
ART 327 Studio Lighting & Illustration Photography ..3
ART 427 Advanced Digital Photography .................3-6
ART 426 Photographic Portfolio ............................3-6

Printmaking Concentration
ART 211 Relief Printmaking .................................3
ART 212 Intaglio Printmaking ...............................3
ART 311 Basic Lithography ................................3-6
ART 312 Intermediate Printmaking .........................3-6
ART 411, 412 Advanced Printmaking Studio ... 3-6 hrs. each

Sculpture Concentration
ART 213 Beginning Sculpture I .............................3
ART 214 Beginning Sculpture II .............................3
ART 313 Intermediate Sculpture I .............................3-6
ART 314 Intermediate Sculpture II .............................3-6
ART 413 Advanced Sculpture I ..............................3-6
ART 414 Advanced Sculpture II ..............................3-6

Bachelor of Arts Degree with a Major
in Art History

The art history major is intended to provide a thorough and
broad background as a basis for concentrated study and
research.

Although one foreign language is required to meet the
University requirements for the B.A. degree, those intending
to go on to graduate art history study are advised to become
proficient in a second foreign language.

Art History (30 hrs.)

Art History Core .................................................. 6
ART 140 Survey of Art History I .................................3
ART 142 Survey of Art History II ...............................3

Required Art History courses .............................. 6
ART 243 Non-western Art ..................................3
ART 245 American Art ..................................3

Elective courses in Art History ..........................18
Electives in art history: ART 330, 335, 340, 350, 360, 375,
380, 390, 417, 480.

Studio (13 hrs.)

Studio Core .................................................... 13
ART 101 Drawing I ..................................................3
ART 102 Drawing II ..................................................3
ART 105 Two-Dimensional Design .........................3
ART 106 Three-Dimensional Design .........................3
Art 220/221 Professional Lecture Series ...................1

Total Art History Requirements ..........................30
Total Studio Requirements .................................13
Total Hours Required for Major ..........................43
**Art Education Major**

**Teacher Certification**
Teaching in the public schools requires a certificate issued by the State of Illinois. Art education majors desiring to teach art at the elementary or secondary level must complete the same requirements as those for a BA or BS degree with a major in studio art, as well as professional education requirements. (Consult the Teacher Education section of this catalog.) The State of Illinois requires content area competency tests for certification.

Students will be assigned advisors in art and in the Department of Teacher Education. Regular consultation with both advisors is extremely important.

NOTE: This degree requires more than 124 semester hours to complete. It is also possible to earn a BFA degree with teacher certification. However, both options will require more than four years of study.

**Minor Requirements**
The Department of Art offers a minor in studio art with two options and a minor in art history.

**Minor in Studio Art**
The art minor is designed for students who would like to have a program for their own personal growth or enjoyment, or for an adjunct to other major interests such as business, publicity, broadcasting, advertising, philosophy, literature, or areas of the sciences, engineering and other courses of study where creativity, problem solving, and relationships between materials, skills, and content are of major concern.

The studio art minor has two possible directions: two dimensional or three dimensional. Each requires 21 hours for completion.

**Option I - Two Dimensional**
ART 101 Drawing I or ART 102 Drawing II ......................... 3
ART 105 Two-Dimensional Design ................................ 3
ART 140 Survey of Art History I, or
ART 142 Survey of Art History II .............................. 3

Studio concentration in drawing, graphic design, painting, photography, printmaking
One 200-level course .................................................. 3
One 300-level course) .................................................. 3
Electives in art (must be approved by art advisor)............... 6

Total Hours Required for Minor 21

**Option II - Three Dimensional**
ART 101 Drawing I, or ART 102 Drawing II ......................... 3
ART 106 Three-Dimensional Design ............................. 3
ART 140 Survey of Art History I, or
ART 142 Survey of Art History II .............................. 3

Studio concentration in ceramics or sculpture
One 200-level course .................................................. 3
One 300-level course) .................................................. 3
Electives in art (must be approved by art advisor)............... 6

Total Hours Required for Minor 21

**Minor in Art History**
ART 140 Survey of Art History I .......................... 3
ART 142 Survey of Art History II .......................... 3
ART 243 Survey of Art History III, or
   ART 245 Survey of Art History IV ......................... 3
Electives in art history ........................................... 9

Total Hours Required for Minor 18

**Course Descriptions**

**Art Courses for the Fine Arts General Education Requirement**

**ART 107 Introduction to 2-Dimensional Creative Processes** 3 hrs. (Gen. Ed. FA)
For non-majors. Two dimensional visual arts: drawing, painting, printmaking, photography, and graphic design. How and why these forms are created and understood.

**ART 108 Introduction to 3-Dimensional Creative Processes** 3 hrs. (Gen. Ed. FA)
For non-majors. Three dimensional visual arts: sculpture, ceramics, design, and drawing. How and why these forms are created and understood.

**ART 131 Art Appreciation** 3 hrs. (Gen. Ed. FA)
Visual art: its significance today and in history. Designed to enhance the student’s understanding and enjoyment of painting, sculpture, and architecture. Prerequisite: non-art major.

**Art History**

**ART 140 Survey of Art History I** 3 hrs.
Western and non-Western art from 4000 B.C. to 1400 A.D.: Ancient, Classic, and Medieval.

**ART 142 Survey of Art History II** 3 hrs.
Western art from 1400 A.D. to present: Renaissance, Baroque and Rococo, 19th and 20th century art.

**ART 240 Design History Survey** 3 hrs.
History of typography, graphic communication, and design. Cause and effect analysis involving cultural forces and design as well as the exploration of major historical movements leading to the emergence of contemporary design.

**ART 243 Non-Western Art** 3 hrs.
Principal art forms of the non-Western world: India, China, Japan, Indochina, and Indonesia. Prerequisites: ART 140, 142, or consent of Art Department chair.

**ART 245 American Art** 3 hrs.
Survey of art in U.S. from Colonial period to present. Prerequisites: ART 140, 142, or consent of Art Department chair.
ART 330 Ancient Greek and Roman Art 3 hrs.
A study of ancient art in the Aegean and Mediterranean regions with emphasis on the cultures of ancient Greece and Rome. Prerequisites: ART 140, 142, or consent of Art Department chair.

ART 335 Medieval Art 3 hrs.
A study of Early Christian, Byzantine, Romanesque and Gothic Art. Prerequisites: ART 140, 142, or consent of Art Department chair.

ART 340 Renaissance Art 3 hrs.
Art of Europe from ca. 1400 to 1600: Early, High, and Late Renaissance periods; Mannerism. Prerequisites: ART 140, 142, or consent of Art Department chair.

ART 350 17th and 18th Century Art 3 hrs.
Art of Europe, ca. 1600 to 1800, including a study of Baroque, Rococo, and Neo-Classical art. Prerequisites: ART 140, 142, or consent of Art Department chair.

ART 360 19th Century Art 3 hrs.
Art of the 19th century in Europe, America, and elsewhere; Neo-Classicism through Post-Impressionism. Prerequisites: ART 140, 142 or consent of Art Department chair.

ART 375 20th Century Art 3 hrs.
A study of the major movements in 20th-century art. Prerequisites: ART 140, 142, junior or senior, or consent of Art Department chair.

ART 380 Topics: Specified 3 hrs.
Topics of special interest which may vary each time course is offered. Topic stated in current Schedule of Classes. Prerequisites: ART 140, 142, or consent of Art Department chair. May be repeated under different topics to a maximum of 12 hours. Emphasis on individual research.

ART 390 History of Photography 3 hrs.
An overview of the history of photography from its invention in 1839 through the modern period of the 20th century. This course will explore the evolution of photography as an art form. Prerequisites: ART 140, 142, or consent of Art Department chair.

ART 417 Independent Study in Art History 3-6 hrs.
Program of directed readings: analysis, synthesis, and interpretation of materials. Research paper required. May be repeated in more than one area of art history, for a total of 6 credit hours. Prerequisites: art history major; senior standing; consent of instructor, and Art Department chair.

ART 480 Seminar in Art History 3 hrs.
Advanced study of a particular artist, period, movement or methodology. Topics stated in current Schedule of Classes. May be repeated under different topics up to 12 semester hours. Prerequisites: ART 140, 142; Art History major or minor, or consent of instructor, and junior or senior standing.

ART 480 Seminar in Art History 3 hrs.
Advanced study of a particular artist, period, movement or methodology. Topics stated in current Schedule of Classes. May be repeated under different topics up to 12 semester hours. Prerequisites: ART 140, 142; Art History major or minor, or consent of instructor, and junior or senior standing.

Studio
Interested non-art majors may also take studio courses offered by the Department of Art. Please contact the chairperson. A lab fee is required for studio courses.

ART 101 Drawing I 3 hrs.
Fundamental concepts and techniques in drawing, using a variety of media and tools. Develop skills based on drawing from observation and invention.

ART 102 Drawing II 3 hrs.
Second part of a year-long course on developing fundamental concepts and techniques in drawing using a variety of media and tools. Developing objective and subjective use of imagery. Introduction to the human figure. Prerequisites: ART 101 or consent of Art Department chair.

ART 105 Two-Dimensional Design 3 hrs.
A studio course exploring the fundamentals of the formal systems and basic elements of visual organization through two-dimensional design principles and theories using a variety of media.

ART 106 Three-Dimensional Design 3 hrs.
A studio course exploring the fundamentals of the formal systems and basic elements of visual organization through three-dimensional design principles and theories using a variety of media. Prerequisite: ART 105 or consent of Art Department chair.

ART 200 Fundamentals of Color 3 hrs.
Perception, relationships, and action of color. Studio experience leads from a visual realization of color relationships to an awareness of the interdependence of color with form and placement. Prerequisites: ART 101, 102, 105, 106, 140, 142, or consent of Art Department chair.

ART 201 Introduction to Ceramics 3 hrs.
An introduction to the fabrication of ceramic objects and the mechanical functions of the ceramic studio including clay mixing, hand building, throwing, glazing and kiln firing with a focus on stoneware. Prerequisites: Art 101, 102, 105, 106, 140, 142 or consent of Art Department chair.

ART 202 High and Low Fire Ceramics 3 hrs.
Technical and design concepts for the forming, glazing, and firing of ceramics with a focus on the aesthetic development of high and low fire ceramics. Prerequisites: ART 201 or consent of Art Department chair.

ART 203 Drawing Studio I 3 hrs.
Visual perception and analysis through drawing in development of direct observation with various subject areas of interest, i.e., still-life, landscape, human figure, non-objective, and abstraction. Traditional drawing media, methods of instrumentation, exploration of composition, and conceptual strategies are included. Prerequisites: Art 101, 102, 105, 106, 140, 142, or consent of Art Department chair.

Bradley University
ART 204 Drawing Studio II 3 hrs.
Visual perception and analysis through drawing in variety of techniques involving line, area, and ground. Figure, still-life, and landscape drawing from direct observation and from imagination. Art 101, 102, 105, 106, 140, 142, 203, or consent of Art Department chair.

ART 205 Typographic Design 3 hrs.
The study of typographic communication and the principles of design composition through hand-rendered and digital forms. Prerequisites: Art 101, 102, 105, 106, 140, 142.

ART 206 Graphic Design Methods & Processes 3 hrs.
Exploration of the creative thought process, problem-solving, alternative solutions in visual communications including methodologies of design presentation. Prerequisites: ART 205 or consent of Art Department chair.

ART 209 Beginning Painting I 3 hrs.
Basic painting techniques with traditional and non-traditional media, i.e., oil, acrylic, collage, and mixed media with emphasis on studio problems in composition, representation, design, color and concept. Prerequisites: Art 101, 102, 105, 106, 140, 142 or consent of Art Department chair.

ART 210 Beginning Painting II 3 hrs.
Development of techniques in traditional and non-traditional painting media. Exploration and experimentation using painting problems in still life, the human figure, abstraction, landscape, and non-objective composition. Emphasis on critical analysis and aesthetic awareness. Prerequisites: ART 209 or consent of Art Department chair.

ART 211 Relief Printmaking 3 hrs.
Relief printing from wood and linoleum blocks. Basic cutting and printing techniques, including black and white, color reduction and multi-block color editioning. Students provide paper, wood, linoleum, brayers, and cutting tools. Prerequisites: Art 101, 102, 105, 106, 140, 142, or consent of Art Department chair.

ART 212 Intaglio Printmaking 3 hrs.
Etching and engraving on zinc and copper plates for printings in the intaglio method. Introduction to methods including drypoint, line etch, aquatint, and softground techniques. Black and white printing with a multi-plate, color edition as final project. Students provide paper, metal plates, burnishers, scrapers, burnins, and drawing needles. Prerequisites: ART 211 or consent of Art Department chair.

ART 213 Beginning Sculpture I 3 hrs.
Introduction to sculpture including 3-d design principles, aesthetics, and basic techniques of additive and reductive manipulation of materials. Processes include carving and welding, cutting and joining and various materials—steel, stone, and/or wood Prerequisites: Art 101, 102, 105, 106, 140, 142, or consent of Art Department chair.

ART 214 Beginning Sculpture II 3 hrs.
Introduction to sculpture including 3-d design principles, aesthetics, and basic techniques of casting including pattern making, modeling in wax, clay, and transfer of the image to bronze and aluminum. Processes will involve cope and drag casting, transfer mold making and investment mold making, pouring molten non-ferrous metals, and finishing cast metal works through chasing and other surface cleanup, patination and sealing. Prerequisites: ART 213 or consent of Art Department chair.

ART 218 Software Applications for Graphic Design 1 hr.
Introduction to the function and aesthetics of computer software applications for graphic designers, including QuarkXpress, Adobe Photoshop, Adobe Illustrator, and other appropriate software. Course includes basic functions of scanning, printing, and file management. Exercises cover the features of the software that will prepare design students to function creatively in the graphic design sequence of courses. Instructor may place emphasis on a specific software package based on previous experience of students.

ART 220 Professional Lecture Series/Studio Visits I 0.5 hrs.
Visiting lectures with studio discussions, seminars, and demonstrations from professionals with national and international reputations in the fine and applied arts, art history, criticism, and philosophy. May be repeated to a maximum of 1 semester hour. Prerequisites: Art 101, 102, 105, 106, 140, 142, or consent of Art Department chair.

ART 221 Professional Lecture Series/Studio Visits II 0.5 hrs.
Visiting lectures with studio discussions, seminars, and demonstrations from professionals with national and international reputations in the fine and applied arts, art history, criticism, and philosophy. May be repeated to a maximum of 1 semester hour. Prerequisites: Art 101, 102, 105, 106, 140, 142, or consent of Art Department Chair.

ART 225 Basic Black and White Photography 3 hrs.
Camera types, controls, and exposures; selection of sensitized materials; camera handling. Darkroom techniques: processing, proofing, adjusting, printing, presentation of work. Students supply film, paper, and a manually adjustable single lens reflex (SLR) camera. Prerequisites: ART 101, 102, 105, 106, 140, 142; or MM 113 for multimedia majors only; or consent of Art Department chair.

ART 227 Basic Graphic Design 3 hrs.
Survey of essential studio methods and techniques in graphic design to give non-art majors the ability to appreciate and communicate through basic graphic design. For non-art majors only.
ART 228 Basic Digital Photographic Imaging  3 hrs.
Introduction to basic digital image creation. Familiarization with processing, enhancement, manipulation, compositing, and asset management. Aesthetic, ethical, and technical implications of digital photographic imaging. Emphasis on creative image-making. Items required: DSLR camera, laptop computer, storage media for camera and computer. Prerequisites: MM 113 and ART 225 or consent of instructor and Art Department chair.

ART 230 Life Drawing  3 hrs.
Drawing the figure from observation; learning anatomy to describe the dynamic qualities of the human form employing basic drawing elements, methods, and materials. Prerequisites: ART 101, 102, 105, 106, 140, 142, or consent of Art Department chair.

ART 300 Advanced Studio Topics  1-3 hrs.
Topics of special interest which may vary each time course is offered. Topic stated in current Schedule of Classes. May be repeated under different topics for a maximum of six hours credit. Prerequisites: junior standing and consent of instructor. See current Schedule of Classes.

ART 301 Ceramics Production  3-6 hrs.
The production and design of functional ceramics. Repeatable up to 6 semester hours. Prerequisites: ART 202, 230 or consent of Art Department chair.

ART 302 Advanced Ceramics  3-6 hrs.
Kiln design, glaze formulation, and individual aesthetic development of techniques and concepts. May be repeated up to 6 hours. Prerequisites: ART 301 or consent of Art Department chair.

ART 303 Intermediate Drawing I  3-6 hrs.
In-depth exploration of drawing processes, concepts, media and supports with projects designed to increase visual awareness and personal experience with subject matter and drawing content. Repeatable up to 6 semester hours. Prerequisites: ART 204, 230, or consent of Art Department chair.

ART 304 Intermediate Drawing II  3-6 hrs.
Study of drawing processes, building and refining individual concepts with emphasis on contemporary approaches to pictorial design and composition. Repeatable up to 6 semester hours. Prerequisites: ART 303 or consent of Art Department chair.

ART 305 Editorial Design  3 hrs.
The creation, layout, and design of multi-page documents for magazines, newspapers, brochures, and catalogs with special emphasis on the integration of words and images. Prerequisites: ART 206, 230, MM 113, or consent of Art Department chair.

ART 306 Corporate Standards and Branding  3 hrs.
The design and implementation of visual identity systems and branding for products, corporations, and organizations, including the design of packaging, point of purchase, and promotional materials. Prerequisites: ART 305 or consent of Art Department chair.

ART 309 Intermediate Painting I  3-6 hrs.
Exploration of subject matter useful toward personal development and artistic growth. Emphasis on the study of painting media, critical analysis, aesthetic awareness, and creative expression. Repeatable up to 6 semester hours. Prerequisites: ART 210, 230, MM 113, or consent of Art Department chair.

ART 310 Intermediate Painting II  3-6 hrs.
Independent work in painting emphasizing aesthetic research and concentrated studio production. Emphasis on the study of painting media, creative expression, critical analysis, and aesthetic awareness. Repeatable up to 6 semester hours. Prerequisites: ART 309 or consent of Art Department chair.

ART 311 Basic Lithography  3-6 hrs.
Lithographic printing from limestone and ball-grained aluminum matrices. Basic drawing and printing techniques for color and black and white editions. Students provide paper, metal plates, lithographic crayons. Repeatable up to 6 semester hours. Prerequisites: ART 220, 230, ART 211 or 212, or consent of Art Department chair.

ART 312 Intermediate Printmaking  3-6 hrs.
Exploration of technical and creative concepts in preparation for advanced printmaking coursework; emphasis on content-oriented imagery and discussion. Introduction to collagraphy, monotypes, photographic and digital techniques, and registration for printing with multiple techniques. Repeatable up to 6 semester hours. Prerequisites: ART 230. At least two courses from ART 211, 212, and 311, or consent of Art Department chair.

ART 313 Intermediate Sculpture I  3-6 hrs.
Intermediate sculpture with emphasis on refinement of the processes of casting, mold making, welding, cutting, joining, and the creation of sculpture in a variety of materials. Design principles, aesthetic considerations, and techniques of working are reviewed with application of principles and materials most appropriate for the development of individual student work. Repeatable up to 6 semester hours. Prerequisites: ART 214, 230, or consent of Art Department chair.

ART 314 Intermediate Sculpture II  3-6 hrs.
Intermediate sculpture with emphasis on the refinement of sculptural concepts and the processes of casting, mold making, welding, cutting, joining, and the creation of sculpture in a variety of materials with continuing emphasis on the development of individual student work. Repeatable up to 6 semester hours. Prerequisites: ART 313 or consent of Art Department chair.
ART 315 Rapid Prototyping 3 hrs.
Explorations into 3-D modeling using software, scanning, and rapid prototyping. May be repeated up to a total of 6 hrs.

ART 316 Independent Study in Studio Arts 1-3 hrs.
Independent study in studio arts. Repeatable for a total of 6 hours credit. Prerequisites: junior standing; consent of instructor, and Art Department chair.

ART 320 The Artists’ Book & Bookmaking 3 hrs.
An introduction to the altered book, book as structure and book as image. Includes bookbinding basics, pamphlet stitch, basic codex, stitches, stab bindings, fold books, combination books and unusual bindings. Emphasis will be placed on craft and conceptual considerations that form the foundation of the book as personal, expressive, unconventional, surprising, beautiful, and thought provoking. Prerequisites: Art 101, 102, 105, 106, 140, 142, 230, MM 113, or consent of Art Department chair.

ART 322 Papermaking Studio 3 hrs.
Production of hand-made papers. Includes instruction in beating and mixing pulp, use of mold and deckle for forming sheets, pressing and drying, and watermarks. Oriental and Western techniques for forming sheets from various fibers; also contemporary sculptural methods. Prerequisites: Art 101, 102, 105, 106, 140, 142, 230, or consent of Art Department chair.

ART 325 Zone System for 35mm Camera 3-6 hrs.
Zone system for roll film, emphasizing 35 mm formats. Extensive exploration of this exposure system, from pre-visualization through total system of fine printing techniques including archival processes. Specific exercises expand visual perception and concept ranges. Repeatable up to six semester hours. Prerequisites: ART 225, 230, MM 113; or consent of Art Department chair.

ART 326 Manipulated Image 3-6 hrs.
Manipulative photographic printing. Imagery developed by varying cameras, films, papers, and chemicals. Introduction to toners, hand-coloring, camera construction and modification. Repeatable up to six semester hours. Prerequisites: ART 225, 230, MM 113; or consent of Art Department chair.

ART 327 Studio Lighting and Illustration Photography 3 hrs.
Aesthetics and techniques of studio lighting as used by photographers in illustration, advertising, and fine art photography. Use of special equipment; fashion, and still-life imagemaking. Prerequisite: ART 225 or consent of instructor.

ART 365 Designing for the World Wide Web 3 hrs.
A studio course exploring typography and visual layout principles of interactive website design. Survey of theory, history, and methods of web design solutions. Discussion of transitional strategies in response to developing technologies. Cross-listed as MM 365. Prerequisites: ART 105, MM 113, ART 205, 206, or consent of Art Department chair.

ART 401 Ceramic Portfolio Design Studio 3-6 hrs.
Portfolio development, studio design and equipment as they relate to the individual artist. Repeatable up to 6 semester hours. Prerequisites: ART 302, or consent of Art Department chair.

ART 402 Ceramic Sculpture 3-6 hrs.
Design concepts and production techniques as they apply to ceramics sculpture. Repeatable up to 6 semester hours. Prerequisites: ART 302, or consent of Art Department chair.

ART 403 Advanced Drawing I 3-6 hrs.
Advanced projects in drawing with emphasis on refinement of concepts and materials leading to an independent body of work. Repeatable up to 6 semester hours. Prerequisites: ART 304 or consent of Art Department chair.

ART 404 Advanced Drawing II 3-6 hrs.
Emphasis on individual growth and development of a body of work reflecting clear understanding of drawing concepts, and mastery of skills and materials. Repeatable up to 6 semester hours. Prerequisites: ART 304 or consent of Art Department chair.

ART 405 Graphic Information Systems 3 hrs.
Exploration of standard and experimental methods for conveying information for business, government, and entertainment including quantitative, qualitative, spatial analysis and application. Prerequisites: ART 306 or consent of Art Department chair.

ART 406 Graphic Design Portfolio 3 hrs.
Introduces portfolio as a comprehensive presentation vehicle including the review and editing of previous design work and creative design of packaging and organizational systems in bound and plate formats. Provides a comprehensive means of assessing a student’s readiness to proceed into professional practice. The evaluation process is conducted by a specially selected professional review panel which may require the redesign and resubmission of the portfolio. Prerequisites: ART 306 or consent of Art Department chair.

ART 409 Advanced Painting I 3-6 hrs.
Thematic development of a body of work in painting with special emphasis on the refinement and exploration of personal concept and content. Repeatable up to 6 semester hours. Prerequisites: ART 310 or consent of Art Department chair.

ART 410 Advanced Painting II 3-6 hrs.
Special projects in painting which may include competitions, exhibitions, installations, commissions, and portfolio development. Repeatable up to 6 semester hours. Prerequisites: ART 310 or consent of Art Department chair.

ART 411, 412 Advanced Printmaking Studio 3-6 hrs. each
Advanced printmaking concepts and techniques in preparation for exhibitions, application to graduate programs,
and other professional pursuits. Emphasis on ideas and finishing skills required for the production of a professional portfolio. Repeatable up to 6 semester hours. Prerequisites: ART 311, 312 or consent of Art Department chair.

**ART 413 Advanced Sculpture I**  3-6 hrs.
Thematic development of a body of work in sculpture with special emphasis on topics of portfolio and the refinement and exploration of materials and methods. Repeatable up to 6 semester hours. Prerequisites: ART 314 or consent of Art Department chair.

**ART 414 Advanced Sculpture II**  3-6 hrs.
Special projects in sculpture which may include works for competitions, specific sites, scale, materials and/or portfolio development. Repeatable up to 6 semester hours. Prerequisites: ART 315 or consent of Art Department chair.

**ART 416 Independent Study in Studio Arts**  1-6 hrs. each
Independent study in studio arts. May be repeated in more than one area of art, for a total of 6 hours of credit. Prerequisites: declared art major; senior standing; consent of Art Department chair.

**ART 420 B.F.A. Seminar I**  2 hrs.
Professional orientation and career preparation through concentrated studio production, exhibition management, creative media research, critique analysis, on-site visitation of artists’ studios, formulation of artist thesis statement and resume. Prerequisites: BFA candidacy; senior standing.

**ART 421 B.F.A. Seminar II**  1 hr.
Continuation of ART 420; resume and portfolio preparation, exhibition design management, culminating B.F.A. exhibition. Prerequisite: ART 420.

**ART 426 Photographic Portfolio**  3-6 hrs.
Preparation of photographic portfolio for the fine arts or for publication photography. Research into successful photographers’ works; selection; development of personal aesthetic. Archival and professional presentation of the prints or other media. Prerequisites: ART 325 or 326; or consent of instructor and advisor.

**ART 427 Advanced Photographic Digital Imaging**  3-6 hrs.
A studio course focusing on the cutting edge of fine art digital photography, from shooting to image editing and printing. Color calibration, advanced digital imaging techniques, output options, substrate choices, and design concepts are discussed in depth. Using the students’ own images to create individual portfolios, students learn how to produce high-quality digital input and output. Required items: DSLR camera, pro laptop computer, and storage media for camera and computer. Repeatable up to six semester hours. Prerequisites: MM 113, ART 225, and ART 228 or consent of instructor and Art Department chair.

**ART 465 Advanced Web Design**  3 hrs.
A studio course exploring advanced and experimental web design strategies, with an emphasis on extended or applied projects. Discussion focuses on the future of the web media and improved human-computer interaction. Topics include: motion graphics, user response, audio, video, and virtual-reality technologies. Cross-listed as MM 465. Prerequisites: MM 215; ART 365/MM 365 or consent of Art Department chair.

**ART 494 Visual Art Expedition**  1-3 hrs.
Students travel to observe or engage in artistic production making use of the resources of the particular location. Advanced study and/or experiences in art and design. May be repeated up to 9 hrs. Topics, destinations, and prerequisites stated in current Schedule of Classes.

**ART 496 BFA Graphic Design Senior Project**  3-6 hrs.
Senior BFA students in graphic design, working closely with an instructor, select and execute a visual communication project; researching and defining the scope, documenting the process of problem-solving, and placing the project in an appropriate historical and theoretical context. Prerequisites: ART 305, ART 306, declared graphic design concentration, BFA candidacy, senior standing, and consent of instructor.
Department of Communication

FACULTY  Professors Gullifor (chair), Jacobs, Zohoori; Associate Professors Dare, Kasch, Koperski, Lamoureux, Pitts (associate chair); Assistant Professors Banning, Bashri, Gabor, Netzley, Young; Temporary Assistant Professor Smith; Lecturers Garfinkel, Lawrence, Strasma; Temporary Instructors Billman, Frazier.

Mission
Programs in the Department of Communication integrate academic study of communication with professional education in advertising, electronic media, journalism, organizational communication, and public relations.

We encourage collaboration among faculty, students, external partners, and the community. We embrace and support the democratic principles of a free, open, and diverse society.

Our mission is to educate students to think, act, and communicate effectively, ethically, critically, and creatively in the global environment to enrich their personal and professional lives.

Admission Requirements
1. Bradley students transferring into the department must have a 2.25 grade point average for at least 12 hours of course work in order to declare a major and/or minor in the Department of Communication.
2. Students transferring from other institutions must have a 2.25 overall grade point average to be admitted to a major and/or minor in the department. External transfer students not having a 2.25 overall grade point average must earn a 2.25 at Bradley for at least 12 hours of course work before declaring a major and/or minor in the department. Courses taken at other institutions must be evaluated by the Admissions Office and then by the department’s advisor for transfer students.
3. Internal and external transfer students may need at least one extra semester to complete graduation requirements because of prerequisites and core course requirements in the major and/or minors.
4. Current Bradley University students and external transfer students who meet departmental admission requirements and who wish to change to or add a communication major must first meet with the department chair for an initial academic advisement session. Applications may be processed at any time except during the following periods:
   - Seven workdays prior to the beginning of the semester to the end of the drop/add period as defined in the academic calendar in the Schedule of Classes.
   - Seven workdays prior to the beginning of early registration to the end of the early registration period as defined in the academic calendar in the Schedule of Classes.

Major Requirements
General Requirements:
1. Students must earn a C or better in every core course.
2. Students may not enroll in communication courses for which a core course is a prerequisite unless they have earned a C or better in the core course.
3. For graduation, all department majors must have a grade point average of 2.25 for all courses taken in the major and/or minor (including courses outside the department required for the major).
4. Department majors and/or minors may not apply a course to more than one requirement. See the requirements for the minor.
5. The journalism minor is not open to department majors.

Course Requirements:

Bachelor of Arts or Bachelor of Science Degree with a major in Communication
Must complete requirements for the core and one concentration.

Core Requirements

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>COM 101</td>
<td>Survey of Communication</td>
<td>3</td>
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<tr>
<td>COM 300</td>
<td>Communication Theory</td>
<td>3</td>
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<tr>
<td>COM 417</td>
<td>Issues and Perspectives in Communications</td>
<td>3</td>
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<tr>
<td>Total Core Hours Required</td>
<td></td>
<td>9</td>
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</tbody>
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Advertising Concentration

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>COM 112</td>
<td>Introduction to Media Production</td>
<td>(1)</td>
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<tr>
<td>or M M 113</td>
<td>Introduction to Multimedia</td>
<td>(3)</td>
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<tr>
<td>COM 202</td>
<td>Basic Advertising Writing</td>
<td>3</td>
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<tr>
<td>COM 219</td>
<td>Public Relations</td>
<td>3</td>
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<td>COM 220</td>
<td>Advertising as Communication</td>
<td>3</td>
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<td>COM 320</td>
<td>Advertising Creative Strategy</td>
<td>3</td>
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<tr>
<td>COM 322</td>
<td>Media Planning</td>
<td>3</td>
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<tr>
<td>COM 325</td>
<td>Advertising Design and Production</td>
<td>3</td>
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</tbody>
</table>
COM 400 Communications Research .............................................. 3
COM 481 Advertising Campaigns ............................................ 3
MTG 315 Principles of Marketing ............................................. 3

Total Hours Required for Major ............................................. 28-30

Total Hours Required for Concentration ................................. 28-30

Advertising Concentration Electives
COM 437 Advertising in a Global Environment .................... 3
COM 447 Issues and Ethics in Advertising ....................... 3
COM 474 Advanced Copywriting ........................................ 3

Electronic Media Concentration
Required Courses (15 hrs.)
COM 203 Introduction to Electronic Media ...................... 3
COM 204 Audio Production .............................................. 3
COM 400 Communications Research .................................... 3
COM 415 Global Media System .......................................... 3
COM 430 Media Management ........................................... 3

Plus 15 hours from electronic media tracks (12 hrs. from one track and 3 hrs. from the other, excluding COM 495).

Production Track
COM 314 Introduction to Video: Studio Production ........... 3
COM 335 Introduction to Video: Field Production .............. 3
COM 414 Advanced Studio Production .................................. 3
COM 435 Advanced Field Production .................................. 3
COM 445 Nonlinear Post Production ................................... 3
COM 495 Communication Internship .................................. 3

Operations & Strategies Track
COM 292 Organizational Communication ...................... 3
COM 330 Communication Law and Ethics ......................... 3
COM 420 Media Sales ................................................... 3
COM 450 Electronic Media Programming & Promotion ........ 3
COM 495 Communication Internship .................................. 3

Total Hours Required for Concentration ............................................. 30

Total Hours Required for Major ............................................. 37

Organizational Communication Concentration
Required Courses (13 hrs.)
COM 112 Introduction to Media Production ...................... 1
COM 201 Journalistic Writing ............................................ 3
COM 219 Public Relations ................................................ 3
COM 292 Organizational Communication ...................... 3
COM 392 Case Studies in Organizational Communication ... 3

Communication Concepts and Processes (Choose 6 hrs.)
COM 303 Rhetorical Theory ............................................. 3
COM 305 The Persuasive Process ....................................... 3
COM 315 Intercultural Communication ............................ 3
COM 393 Interpersonal & Small Group Communication ....... 3

Elective Courses (Choose 6 hrs.)
COM 316 Researching Communication and Organizational Culture .......................................................... 3
COM 394 Communication and Conflict Management ........... 3
COM 395 Interviewing Communication: Process and Strategy ................................................................. 3
COM 396 Innovation, Computer-Mediated Communication, and Organizational Change ........................................... 3
COM 397 Virtual Teams, Communication and Collaboration ................................................................. 3
COM 398 Communication Training and Development ........ 3
COM 399 Computer-mediated Communication .................. 3
COM 430 Media Management ........................................... 3

Elective Outside the Communication Department (3 hrs.)
One course that closely complements the study and practice of organizational communication, selected with advisor consent from outside the department .................. 3

Total Hours Required for Concentration ............................................. 28

Total Hours Required for Major ............................................. 37
Public Relations Concentration

Required
- COM 201 Journalistic Writing ........................................ 3 hrs.
- COM 112 Introduction to Media Production .................. (1)
  or MM 113 Introduction to Multimedia .................... (3)
- COM 215 Basic Reporting ........................................... 3
- COM 219 Basic Reporting ........................................... 3
- COM 220 Advertising as Communication .................. 3
- COM 327 Public Relations Writing ............................. 3
- COM 383 Desktop Publishing ....................................... 3
- COM 400 Communications Research ......................... 3
- COM 480 Public Relations: Case Studies & Campaigns ...... 3

Total Hours Required for Concentration ........................ 31-33

Required Non-Communication Courses
- ATG 157 Accounting Principles-Financial ..................... 3
- ECO 100 Introduction to Economics or ECO 221 Principles of Microeconomics ............... 3

Total Hours Required for Concentration ........................ 31-33

Total Hours Required for Major ...................................... 40-42

Minor Requirements

The Department of Communication offers a minor in Journalism. It is not open to department majors.

Journalism
- COM 101 Survey of Communication ............................... 3
- COM 201 Journalistic Writing ........................................ 3
- COM 215 Basic Reporting ........................................... 3
- COM 302 Computer-Assisted Reporting, or COM 310 Broadcast News Reporting & Writing ....... 3
- COM 323 Newspaper Editing and Design, or COM 335 Field Production ............................. 3
- COM 330 Communication Law and Ethics ........................ 3
- COM 345 Photojournalism & Documentary Photography or COM 425 Public Affairs Reporting ................. 3

Total Hours Required for Minor ................................... 21

Course Descriptions

COM 101 Survey of Communication .................. 3 hrs.
Basic communication concepts and issues. Overview of mass media history and profession.

COM 103 The Oral Communication Process 3 hrs. (Gen. Ed. SP)
Theories and skills of oral communication. Emphasis on basic principles of thought, content, organization, style, delivery, and the interaction of communication and culture.

COM 112 Introduction to Media Production 1 hr.
Tools and aesthetics of media production: word processing and photography. The desktop computer interface. Desktop publishing, presentation software, multimedia documents. Internet navigation and page production. Credit by examina-

tion available. Not available for credit to students who have credit in MM 113.

COM 201 Journalistic Writing ........................................ 3 hrs.
Basic writing: selecting, organizing, and structuring information for print and broadcast journalism. Prerequisites: COM 101; ENG 101.

COM 202 Basic Advertising Writing ........................................ 3 hrs.
Principles and practice of effective advertising writing. Selecting, organizing, and structuring information for advertising writing. Prerequisites: COM 101; ENG 101.

COM 203 Introduction to Electronic Media ........................................ 3 hrs.

COM 204 Audio Production ........................................ 3 hrs.
Study and practice in the operation of basic audio production equipment. Production techniques and production criticism. Prerequisite: COM 101, 203; or consent of instructor.

COM 209 Forensics ........................................ 1 hr.
Research and performance laboratory for students who participate in intercollegiate and community speech activities. Repeatable to a maximum of 6 credit hours. Prerequisites: COM 103; consent of Forensics Director.

COM 215 Basic Reporting ........................................... 3 hrs.
Practice in news gathering, interviewing, and writing basic news stories. Introduction to computer assisted reporting. Prerequisites: COM 101, 201; ENG 101.

COM 219 Public Relations ........................................... 3 hrs.
Nature, practices, ethics, and problems of public relations. Prerequisites: COM 101, COM 201 or COM 202; ENG 101.

COM 220 Advertising as Communication ........................................ 3 hrs.
Introduction to the foundations, nature, and practice of advertising; commercial aspects of communications. Ethical, legal and social responsibility aspects of advertising. Prerequisite: COM 101.

COM 291 Topics in Communication 1-3 hrs. per sem.
Topics of special interest which may vary each time course is offered. May be repeated under different topics. Topic and prerequisites stated in current Schedule of Classes. No more than 9 hours total may be taken in COM 291, 391, and 491. Prerequisite: sophomore standing.

COM 292 Organizational Communication ........................................ 3 hrs.
Introduction to organizational communication including perspectives on organizing, the nature of communication within organizations, organizational culture, enhancing communication competence, innovation, technology, and organizational change, and contemporary issues. Prerequisites: COM 103.
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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>COM 300</td>
<td>Communication Theory</td>
<td>3 hrs.</td>
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<td>Theories and variables of human communication in the</td>
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<td>interpersonal, group, organizational, intercultural,</td>
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<td></td>
<td>mediated, and global systems. Prerequisites: COM 101;</td>
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<td>minimum of 45 credit hours.</td>
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<tr>
<td>COM 302</td>
<td>Computer-Assisted Reporting</td>
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<td>Continuation of COM 215. Focus on coverage of trends,</td>
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<td>processes, and phenomena with attention to techniques</td>
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<td>and problems of preparing news about local and state</td>
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<td>government, courts, finance, education, boards, and</td>
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<td>commissions; introductions to database development and</td>
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<td>use in reporting. Prerequisites: COM 101, 201, 215;</td>
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<td>ENG 101.</td>
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<td>COM 303</td>
<td>Theory and Literature of Rhetoric</td>
<td>3 hrs.</td>
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<td>Development of rhetorical theories: ancient Greece and</td>
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<td>Rome to the modern age. Focus on major theorists of</td>
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<td>each age and their treatments of the canons of rhetoric.</td>
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<td>Prerequisites: COM 103; junior/senior standing;</td>
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<td>COM 305</td>
<td>The Persuasive Process</td>
<td>3 hrs.</td>
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<td>How persuasive communication influences human</td>
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<td>behavior. Emphasis on recent theories of persuasion</td>
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<td>and experimental research. Creating persuasive</td>
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<td>messages and evaluating persuasive attempts.</td>
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<td>Prerequisites: COM 103 or consent of instructor.</td>
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<tr>
<td>COM 307</td>
<td>News Feature Writing</td>
<td>3 hrs.</td>
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<td></td>
<td>Writing local news features and special feature</td>
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<td></td>
<td>stories for Sunday supplements, magazine sections,</td>
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<tr>
<td></td>
<td>and magazines. Prerequisites: COM 101, 201, 215;</td>
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<td></td>
<td>ENG 101.</td>
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<tr>
<td>COM 310</td>
<td>Broadcast News Reporting &amp; Writing</td>
<td>3 hrs.</td>
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<td></td>
<td>Continuation of COM 215; Focus on gathering,</td>
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<td>preparing, and writing broadcast news about local,</td>
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<td>state, and federal administration, courts, finance,</td>
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<td>education, boards, and commissions; program format.</td>
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<td></td>
<td>Prerequisites: COM 101, 201, 215; ENG 101.</td>
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<tr>
<td>COM 314</td>
<td>Introduction to Video: Studio Production</td>
<td>3 hrs.</td>
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<tr>
<td></td>
<td>Television production techniques, theories, and</td>
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<td></td>
<td>fundamental skills as applied to studio production and</td>
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<td>335. Prerequisites: COM 101, 203, 204; consent of</td>
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<td>instructor.</td>
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<td>COM 315</td>
<td>Intercultural Communication Theory (Gen. Ed. CD)</td>
<td>3 hrs.</td>
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<td>Communication across diverse cultures. Intercultural</td>
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<td></td>
<td>communication theory, skills, and concepts. Developing</td>
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<td>specific communication skills to facilitate effective</td>
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<td></td>
<td>communication in intercultural settings. Prerequisites:</td>
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<td></td>
<td>COM 103; junior standing.</td>
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<tr>
<td>COM 316</td>
<td>Researching Communication in Organizational Culture</td>
<td>3 hrs.</td>
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<tr>
<td></td>
<td>Introduction to qualitative approaches to studying</td>
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<td></td>
<td>cultural forces in organizational communication,</td>
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<td></td>
<td>including ethnography of communication, conversation</td>
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<td>analysis, rhetorical analysis of texts, interviewing,</td>
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<td></td>
<td>and communication audits. Prerequisites: COM 103;</td>
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<td></td>
<td>junior standing.</td>
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<td>COM 320</td>
<td>Advertising Creative Strategy</td>
<td>3 hrs.</td>
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<td></td>
<td>Formulation and techniques of creative strategy.</td>
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<td>Copywriting for print and electronic media. Prerequisites: COM 101, 202, and 220; ENG 101.</td>
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<td>COM 322</td>
<td>Advertising Media Planning</td>
<td>3 hrs.</td>
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<td>Development of media plans and schedules to deliver</td>
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<td>advertising messages to target markets in media</td>
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<td>audiences. Advertising media vehicles evaluated in</td>
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<td>terms of creative requirements, audience characteristics,</td>
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<td></td>
<td>and cost efficiency. Prerequisites: COM 101, 220;</td>
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<td>MTG 315.</td>
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<td>COM 323</td>
<td>Newspaper Editing and Design</td>
<td>3 hrs.</td>
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<td></td>
<td>Extensive practice in copy editing and headline</td>
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<td>writing for newspapers with an emphasis on grammar,</td>
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<td>style, and accuracy. Introduction to the principles</td>
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<td>of newspaper design. Prerequisites: COM 101, 112, 201,</td>
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<td>215, and 302; ENG 101.</td>
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<tr>
<td>COM 325</td>
<td>Advertising Design and Production</td>
<td>3 hrs.</td>
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<tr>
<td></td>
<td>Application of advertising principles and techniques</td>
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<td>in the design and preparation of ads for newspapers,</td>
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<td>posters, magazines, sales brochures, and direct</td>
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<td>marketing. Prerequisites: COM 101, 202, 220, and</td>
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<td>320; ENG 101.</td>
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<td>COM 327</td>
<td>Public Relations Writing</td>
<td>3 hrs.</td>
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<td>Promotional writing for publicity and public relations;</td>
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<td>practice preparing product, personnel, and organizational news releases. Special needs of various media. Prerequisites: COM 101, 201, 215, and 219; ENG 101.</td>
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<td>COM 330</td>
<td>Communication Law &amp; Ethics</td>
<td>3 hrs.</td>
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<td>Laws covering all the media; libel, privacy, copyright,</td>
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<td>and intellectual property; federal and state laws;</td>
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<td>unique broadcast and Internet regulations; nexus</td>
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<td>between the legal and the ethical in the practice of</td>
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<td>journalism. Prerequisites: junior standing.</td>
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<td>COM 335</td>
<td>Introduction to Video: Field Production</td>
<td>3 hrs.</td>
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<td>Use of portable field video production techniques (ENG/</td>
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<td>EFP) and post-production editing facilities for a</td>
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<td>variety of assignments in news, feature, and television</td>
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<td>commercial production. Aesthetics, visualization, and</td>
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<td>societal impact of the medium. May not be taken</td>
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<td>concurrently with COM 314. Prerequisites: COM 101,</td>
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<td>203, 204 or consent of instructor.</td>
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<td>COM 340</td>
<td>Magazine Production</td>
<td>3 hrs.</td>
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<td>Magazine publishing: writing, editing, production,</td>
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<td>design, and management. Prerequisite: COM 101, 201,</td>
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<td>and 215.</td>
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<td>COM 345</td>
<td>Photojournalism and Documentary Photography</td>
<td>3 hrs.</td>
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<td>Technical, aesthetic, and ethical concerns of the</td>
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<td>photojournalist and documentarian. Photographs for</td>
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<td>newspapers, magazines, and interactive media. The</td>
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<td>photographic essay. Pictorial coverage of events.</td>
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<td>Prerequisites: ART 225; MM 113; or consent of instructor.</td>
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COM 365 Digital Photography 3 hrs.
Photographic imaging using computers. Image acquisition by conventional means and by digital cameras. Image creation, processing, enhancement, manipulation, and compositing. Aesthetic, technical, economic, and ethical implications of digital photographic imaging. Prerequisites: ART 225; MM 113; or consent of instructor.

COM 383 Desktop Publishing 3 hrs.
Desktop publishing. Lecture, discussion, and preparation of public relations portfolio using various software. Prerequisites: COM 112.

COM 386 Media, Race, and Gender (Gen. Ed. CD) 3 hrs.
An examination of the historical and current media portrayal and involvement of women and ethnic minorities indigenous to America, with special emphasis on the growth and development of minority media and media systems. Prerequisites: junior standing.

COM 391 Topics in Communication 1-3 hrs. per sem.
Topics of special interest which may vary each time course is offered. May be repeated under different topics. rules and strategies for managing and resolving conflict. Prerequisites: junior standing.

COM 392 Case Studies in Organization Communication 3 hrs.
Problems and issues in organizational communication are analyzed through case histories, exercises, and projects. Prerequisites: COM 103, 292.

COM 393 Interpersonal and Small Group Communication 3 hrs.
Examines theory and research in interpersonal and small group communication in the context of the organization. Prerequisites: COM 103, 292; or consent of instructor.

COM 394 Communication & Conflict Management 3 hrs.
Furnishes learners with an understanding of the nature, purpose, and function of conflict and communication rules and strategies for managing and resolving conflict. Prerequisites: COM 103, 292; or consent of instructor.

The purpose, structure, focus, and techniques employed in effective interviewing. Furnishes knowledge and skills necessary for enhancing effectiveness in several types of interviewing contexts, including employment interviews, journalistic interviews, appraisal interviews, and counseling/medical interviews. Prerequisites: COM 103, 292; or consent of instructor.

COM 396 Innovation, Computer-Mediated Communication, and Organizational Change 3 hrs.
Examines the introduction, diffusion, and use of computer-mediated communication within the organization. Furnishes an understanding of the range of uses to which information technologies are put in organizations, the controversies surrounding their use, and the complexities involved in managing their effects. Prerequisites: COM 103, 292; or consent of instructor.

COM 397 Virtual Team, Communication and Collaboration 3 hrs.
Furnishes conceptual understanding of: 1) the nature of human communication and collaboration; 2) collaboration technologies; and 3) rules and strategies for using technology to enhance team and organizational effectiveness. Prerequisites: COM 103, 292; or consent of instructor.

COM 398 Communication Training & Development 3 hrs.
Theory and practice of training for developing the human resources in the organization. Topics include adult learning theory and research, methods of assessing communication training needs and learning styles, design of effective communication training, presentation skills, and evaluation methods. Prerequisite: COM 103.

COM 399 Communication in Computer-mediated Environments 3 hrs.
Nature, function, and process of communication in diverse computer-mediated environments. Enhances learners’ ability to communicate competently in technologically complex computer-mediated environments.

COM 400 Communications Research 3 hrs.
Research procedures commonly used in communications research, including qualitative and quantitative methods. Emphasis on sampling data collection and analysis. Not open to students with credit in COM 440. Prerequisites: COM 101, 300; minimum of 45 credit hours.

COM 414 Advanced Video: Studio Production 3 hrs.
For students entering broadcasting. Preparation and development of television programs; emphasis on creative formats and uses of the camera, sound, music, lighting, and graphics. Development of production and critical skills. This course may not be taken concurrently with COM 435. Prerequisites: COM 101, 203, 204 and 314; senior standing.

COM 415 Global Media Systems 3 hrs.
Study of mass media systems throughout the world: their history, development, theories of control, international news agencies, and new technologies. Prerequisites: COM 101; senior standing or consent of instructor.

COM 417 Issues and Perspectives in Communication 3 hrs.
Analysis and discussion of communication issues, ethics, and perspectives. Prerequisites: COM 101, 300; senior standing.

COM 420 Media Sales 3 hrs.
The economics, strategies, and techniques involved in media sales. Prerequisite: junior standing.
COM 425 Public Affairs Reporting 3 hrs.
Intensive practice in coverage of urban affairs; methods of reporting on state and federal government; introduction to methods of investigative reporting. Prerequisites: COM 101, 201, 215; COM 302 or 310; ENG 101.

COM 430 Media Management 3 hrs.
Theory and operation of media organizations including management and administrative issues. Cost and revenue analysis, budgeting, and personnel management. Prerequisites: senior standing or consent of instructor.

COM 435 Advanced Video: Field Production 3 hrs.
Advanced work in portable video communication systems and electronic editing. Exploration of various media applications and individual style of exposition. Video communication and societal effects. This course may not be taken concurrently with COM 414. Prerequisite: COM 101, 203, 204, and 335.

COM 437 Advertising in a Global Environment 3 hrs.
Comparative analysis of interaction among advertising, cultures, and economic, legal, and political systems. Designing and developing appropriate advertising strategies for diverse cultural markets. Prerequisites: COM 101, 220; MTG 315; or consent of instructor.

COM 438 Public Relations in a Global Environment 3 hrs.
Public relations theory and practice in conjunction with cultural, geographic, and historic components of international practice of the profession. International media-public relations exchange and international public relations. Prerequisites: COM 101, 201, 219; ENG 101.

COM 445 Nonlinear Postproduction I 3 hrs.
Fundamental principles and practices of digital, non-linear video editing and related postproduction processes and procedures. Prerequisite: COM 101, 203, 204, and 335.

COM 447 Issues and Ethics in Advertising 3 hrs.
Students will explore current issues in advertising with special emphasis on present advertising industry development, advertising laws, advertising literature, special interest research, ethical issues, and problem-solving techniques. Prerequisites: senior standing.

COM 450 Electronic Media Programming and Promotion 3 hrs.
Acquisition, distribution, and evaluation of radio and television program content across various electronic media platforms. Application of programming and promotion strategies to specific situations. Prerequisites: COM 101, 203; senior standing; or consent of instructor.

COM 474 Advanced Copywriting 3 hrs.
Advanced advertising copywriting for various advertising media. Prerequisites: COM 101, 112, (or MM 113), 202, 220, 320, 325; ENG 101; senior standing.

COM 480 Public Relations: Case Studies and Campaigns 3 hrs.
The capstone course in the PR sequence. Theory and strategy are stressed through studies of classic PR case programs and development of PR campaigns for actual businesses and organizations. A final campaign requires research, writing, production, application and analysis skills. Prerequisites: COM 101, 201, 215, 219, 300, and 327; ENG 101; senior standing.

COM 481 Advertising Campaigns 3 hrs.
The capstone course in the advertising sequence. Basic principles and applications of advertising campaign planning, preparation, and presentation taught in a problem-solving mode. Prerequisites: COM 101, 112, 202, 220, 320, 322, 325, and 400; ENG 101.

COM 490 Independent Study 1-3 hrs. per sem.
Individual creative research into various problems and aspects of the mass media. Requires application (available in Department Chair’s office). May be repeated for a total of six hours. Prerequisites: junior standing and consent of instructor.

COM 491 Topics in Communication 1-3 hrs.
Topics of special interest which may vary each time course is offered. May be repeated under different topics. Topic and prerequisites stated in current Schedule of Classes. No more than 9 hours total may be taken in COM 291, 391, and 491. Prerequisite: senior standing.

COM 492 Seminar in Communication 1-3 hrs.
Advanced study and/or work in performance, production, historical, critical, and theoretical aspects of communication. May be repeated under different topics, for a total of three semester hours. Prerequisite: junior standing.

COM 493 Communication Agency Practicum 1-3 hrs.
Senior-level experience in various communication disciplines. Students meet with clients to plan, prepare, analyze, and produce client materials under faculty supervision. May be repeated up to a maximum of 3 semester hours. Prerequisite: senior standing.

COM 494 Communication Expedition 1-3 hrs.
Students travel to observe professional communication and/or to engage in creative production making use of the resources of the particular location. Advanced study and/or experiences in communication settings. May be repeated under different topics for a maximum of 9 hours credit. Topics, destination, and prerequisites stated in current Schedule of Classes.

COM 495 Communication Internship 1-3 hrs.
Supervised experience at media outlets, companies, or organizations utilizing communication involving all phases of media operations. Application required (available from Intern Director). May be repeated once if in a different experience. Only 3 hours count toward major where applicable. Prerequisites: junior standing; 2.5 overall GPA, 2.75 major/ minor GPA; completion of required courses in concentration (required courses listed on internship application form).
Multimedia Program

FACULTY  Professor Rowe; Associate Professors Lamoureux, Ferolo (program director); Temporary Assistant Professor McGill; Temporary Instructor Cavanagh

Mission
The Multimedia program at Bradley University maintains a strong focus on creative and conceptual problem-solving in the authoring of material for aspiring new-media professionals within a sound theoretical framework. Students will learn the importance of content research and project planning while becoming familiar with aesthetic conventions and the production environment within each of the component media types. Multimedia majors and minors incorporate the various media items into stand-alone projects with authoring tools designed for the Internet and for CD-ROM/DVD. Although advanced multimedia work involves some scripting, a computer science background is not essential for work in creative multimedia authoring.

Multimedia Major
Multimedia Major Core (10 hours)
A grade of "C" or better is required in each of these courses for graduation as a Multimedia Major.
ART 205 Typographic Design ........................................3
MM 213 Basic Multimedia Authoring ..........................4
MM 250 Introduction to New Media Theory ..............3

Other Multimedia Major Requirements (34 hours)
ART 105 Two-Dimensional Design ............................3
COM 204 Audio Production .......................................3
COM 345 Photographic & Documentary Photography 3
MM 113 Introduction to Media Production ..............3
MM 215 Introduction to Scripting Languages .............3
MM 235 Multimedia Video Production .....................3
MM 313 Intermediate Multimedia Authoring ...........3
MM 365 Design for the World Wide Web .................3
MM 413 Advanced Multimedia Authoring ...............3
MM 426 Multimedia Portfolio ................................1
MM 450 Issues in New Media Theory .....................3
MM 465 Advanced Web Design ...............................3

Specialization (12 hours)
Select in consultation with advisor.
ART 206 Graphical Design Methods and Processes ....3
ART 225 Basic Black & White Photography ...............3
ART 228 Basic Digital Photography .......................3
ART 240 Design History Survey ..............................3
ART 305 Editorial Design .........................................3
ART 306 Corporate Standards & Branding ...............3
ART 405 Graphic Information Systems ..................3
ART 406 Graphic Design Portfolio .........................3
CFA 301 Cooperative Education/Internship in
Communication and Fine Arts ..........................0-6
CS 121 Introduction to Data Structures .................3
CS 500 JAVA Programming and Web Design ..........3
COM 399 Communication in Computer-mediated
Environments ................................................3
MM 333 Introduction to Field Research in Virtual
Environments ................................................3
MM 444 Field Research in Virtual Environments ....3
MM 513 Educational Software Design .....................3
MM 470 Digital Animation ....................................3
MM 490 Independent Study ..................................1-3
MM 491 Special Topics in Multimedia .....................1-4
MUS 161 Music Theory .........................................2
MUS 250 Introduction to Music Technology ............3
SOC 421 Culture, Identity, and Cyberspace ............3

Suggested Electives
ART 142 Survey of Art History II .............................3
ART 245 American Art ...........................................3
COM 314 Introduction to Video: Studio Production ....3
COM 491 Topics in Communication-Media
Management ....................................................1-3
COM 492 Seminar in Communications ..................1-3

Multimedia Minor
The Multimedia Minor is a 19-semester-hour program compatible with the majors in the Slane College of Communications and Fine Arts and with majors in other colleges. Courses are selected to provide an overview of skills in multimedia authoring which can apply to a variety of major programs of study.
ART 105 Two-dimensional Design ............................3
ART 205 Typographic Design ..................................3
MM 113 Introduction to Multimedia .......................3
MM 213 Basic Multimedia Authoring .....................4
MM 250 Introduction to New Media Theory ............3
MM 365 Designing for the World Wide Web ...........3
Course Descriptions

MM 113 Introduction to Multimedia 3 hrs.

MM 213 Basic Multimedia Authoring 4 hrs.
Acquisition and computer processing of text, photographs, video and sound files. Incorporation of processed files into documents for computer multimedia. Solving problems in visual and multimedia communications assignments. Theories and cultural effects of visual communication and new media. Prerequisites: MM 113 or equivalent experience in computer skills.

MM 215 Introduction to Scripting Languages 3 hrs.
A non-technical introduction to the use of scripting languages in a web-based environment. An overview of current scripting languages such as Javascript, VBScript, and PERL. Cross-listed as CIS 215. Prerequisite: One semester of programming, or MM 213 and MM 365, or equivalent.

MM 235 Multimedia Video Production 3 hrs.
Fundamental principles and practices of professional video cameras, microphones, and lights for multimedia production. Non-linear editing. Prerequisites: MM 113; COM 204; sophomore standing.

MM 250 Introduction to New Media Theory 3 hrs.
Extracts and recombines fundamental aspects of art, communication, rhetorical, and computer theories to describe, explain, and understand new multimedia interaction environments. Prerequisite: 12 hours earned.

MM 313 Intermediate Multimedia Authoring 3 hrs.
Multimedia design and production using scriptable authoring and animation tools. Problems in interface design. Advanced media creation applications. Virtual reality environments. Prerequisites: MM 213, MM/CIS 215, MM 235, COM 204; multimedia major or minor, or consent of instructor.

MM 333 Introduction to Field Research in Virtual Environments 3 hrs.
Fundamentals of qualitative field research methods in the ethnographic tradition, adjusted to the characteristics of online virtual worlds. Subject protection, observation, mapping, interviewing, note taking, and note rendering. Prerequisite: junior class standing.

MM 365 Designing for the World Wide Web 3 hrs.
A studio course exploring typography and visual layout principles of interactive website design. Survey of theory, history, and methods of web design solutions. Discussion of transitional strategies in response to developing technologies. Cross-listed as ART 365. Prerequisites: ART 205, MM 213; or consent of instructor.

MM 413 Advanced Multimedia Authoring 3 hrs.
Problems and solutions of multimedia authoring and human interface design. Advanced scripting solutions. Project design in the professional workspace. Prerequisites: MM 313; Majors only, or consent of program director.

MM 426 Multimedia Portfolio 1 hr.
Preparation of a web-based, CD, or DVD-based portfolio incorporating elements of all significant multimedia-related work produced during the student’s tenure at the university. Includes vita, personal information, and self-assessment. Research into portfolio styles and strategies. Documentation and organization of portfolio materials. Prerequisite: senior status in Multimedia Program.

MM 444 Field Research in Virtual Environments 3 hrs.
Conduct of field research via ethnographic methods in virtual, online worlds. Subject protection, data collection (observation, interview, documents), data analysis, written and oral project presentation methods. Prerequisites: junior class standing; MM 333.

MM 450 Issues in New Media Theory 3 hrs.
Topics course, with varying subjects, examining contemporary issues and problems in new media theory and the multimedia environment. Current topic/title in current schedule of classes. May be repeated, once, under different topic/title. Prerequisites: MM 213, 250; junior standing.

MM 465 Advanced Web Design 3 hrs.
A studio course exploring advanced and experimental web design strategies, with an emphasis on extended or applied projects. Discussion focused on the future of the web media and improved human-computer interactions. Topics to include: motion graphics, user response, audio, video, and virtual-reality technologies. Cross-listed as ART 465. Prerequisite: MM 365/ART 365 or consent of instructor.

MM 470 Digital Animation 3 hrs.
A studio course exploring computer modeling and animation. Survey of the theory, history, and practice involved with creating quality modeling for print media, and also modeling and animation for time-based audio-visual media. Prerequisites: ART 105, 106, 240 or consent of instructor.
**MM 490 Independent Study**  1-3 hrs.
Individual scholarly research or advanced creative production investigating aspects of multimedia communication. May be repeated under different topics for a maximum of six hours. Requires application (available from Program Director). Prerequisites: junior standing and consent of program administrator and faculty member.

**MM 491 Special Topics in Multimedia**  1-4 hrs.
Topics of special interest which may vary each time course is offered. May be repeated under different topics for a maximum of 8 hours credit. Topic and prerequisites stated in current Schedule of Classes. Only three hours may be applied toward MM specialization requirement. Prerequisites: junior standing, 9 hours in MM program core or specialization courses.

**MM 513 Educational Software Design**  3 hrs.
The design and construction of educational software that is based upon sound educational theory and best practice. Students will become proficient with appropriate multimedia instructional design software in developing their projects. Investigating and applying current theories of learning, instruction, and assessment. Cross-listed as ETE 513. Prerequisites: MM 113 or ETE 551; MM 213 or instructor approval.
Department of Music

FACULTY  Professors Dzapo, Jost, E. Kaizer, Vroman (chair); Associate Professors Heinemann, Kelly, Walters; Lecturer Henry; Temporary Instructor J. Kaizer; Music/Theatre Specialist Sloter; Department Accompanist Carlyle.

Accreditation
The music program is accredited by the National Association of Schools of Music (NASM).

Mission
Music at Bradley has a double mission:
1. To prepare music students for successful careers as teachers or administrators in music; as professional performers; as composers; or as professionals in music related fields such as music business.
2. To prepare both professional and general students who are not music majors for lifelong pleasure in music.

Degrees Offered
1. Bachelor of Music
   in performance
   in music education
   in composition
2. Bachelor of Arts
   in music
   in music business
3. Bachelor of Science
   in music
   in music business

Admission Requirements
Admission to all undergraduate degree programs in music requires:
1. A minimum of four years experience in orchestra, band, chorus or private lessons.
2. A successful music audition. (Contact the chair of the Department of Music for an audition appointment.)

Degree Requirements
General Requirements:
1. All full-time music majors and minors must register for Recital Lab (MUS 001) each semester of residence. Each student is expected to perform on this lab at least once a semester or as determined by the applied music teacher.
2. All full-time music majors must participate in an assigned concert band, choir, or orchestra. String players may audition and perform with the Peoria Symphony Orchestra or the Knox-Galesburg Symphony but must continue to perform in the Bradley Symphony Orchestra.
3. All music majors should declare a major instrument or voice by the end of the fourth semester. A music minor must declare at the time of audition.
4. All music students must maintain a cumulative G.P.A. of 2.5 in music courses during the first two years in order to achieve advanced standing. Junior-senior credit in the major applied area can be earned only after a student has achieved advanced standing. Music majors with additional majors may not be allowed to apply these courses as junior/senior hours. Students should consult with their advisor(s).
5. A “sophomore review” will be held during the spring semester of each student’s sophomore year. At the beginning of the spring semester, each sophomore music major will be scheduled for a meeting with his or her advisor, the department chair, and other faculty members as required (e.g., private instructor, ensemble coach) for a review of the student’s progress up to that time. The purpose of the review is to address any deficiencies that might impede the student’s continued progress in his or her chosen field. Students will also have an opportunity to pose questions relevant to their academic programs at Bradley and their intended goals.

Proficiency Examinations
1. Proficiency examinations are available in the following areas: theory (up to 4 credits), ear-training & sight-singing, history & literature, and applied music (limited to 2 semesters of credit).
2. Students should consult with the department chair for further information regarding proficiency examinations.
Course Requirements:

Bachelor of Arts Degree or Bachelor of Science Degree with a major in Music

Applied Music (min. of 4 semesters)..............................8
Ensemble (each semester)............................................4-8
MUS 001 Recital Lab (each semester)............................0
MUS 161 Music Theory I..............................................2
MUS 162 Music Theory II............................................2
MUS 163 Elementary Ear-Training and Sightsinging........1
MUS 164 Elementary Ear-Training and Sightsinging........1
MUS 165 Keyboard Skills-Class Piano..........................2
MUS 166 Keyboard Skills-Class Piano..........................2

Two of the following:

MUS 245 Music in Its Hist. Persp. I............................3
MUS 263 Music in Its Hist. Persp. II............................3
MUS 335 Music in Its Hist. Persp. III.........................3
MUS 336 Music in Its Hist. Persp. IV.........................3
Music Electives.....................................................9-13

Total Hours Required for Major 41

Bachelor of Music Degree

BM students must complete the core requirements along with those for one of the majors.

Core Requirements

MUS 001 Recital Lab (each semester)............................0
MUS 002 Senior Recital............................................0
MUS 141/341, 142/342, 143/343, 144/344, 145/345, or
146/346 (ensemble each semester).............................8
MUS 161 Music Theory I............................................2
MUS 162 Music Theory II..........................................2
MUS 163 Elementary Ear-Training and Sightsinging......1
MUS 164 Elementary Ear-Training and Sightsinging......1
MUS 165 Keyboard Skills-Class Piano........................2
MUS 166 Keyboard Skills-Class Piano........................2
MUS 235 Music in Its Historical Perspective I.............3
MUS 236 Music in Its Historical Perspective II............3
MUS 261 Music Theory III........................................2
MUS 262 Music Theory IV.........................................2
MUS 263 Ear-Training and Sightsinging......................1
MUS 264 Ear-Training and Sightsinging......................1
MUS 265 Advanced Keyboard Skills-Class Piano...........2
MUS 266 Advanced Keyboard Skills-Class Piano...........2
MUS 305 Counterpoint or MUS 319 Composition
or MUS 405 Theories of Atonal Music........................2-3
MED 321 Conducting I.............................................2
MUS 335 Music in Its Historical Perspective III ..........3
MUS 336 Music in Its Historical Perspective IV ..........3

Total Core Hours Required 44-45

Performance Major

Performance majors must complete the requirements for one of the following concentrations:

Piano Concentration

APL 189/389 Applied Music Piano (max. 4 hrs./sem.) .....20
Half Junior Recital.....................................................0
MUS 327 Accompanying or
MUS 328 Accompanying (4 semesters).......................4
MUS 331 Piano Pedagogy...........................................2
MUS 433 Piano Literature..........................................2
Total Hours Required for Concentration 28

Total Hours Required for Major 72

Piano Accompanying Concentration

APL 189/389 Applied Music Piano (max. 4 hrs./sem.) .....16
Applied Music/accompanying techniques ..................16
MUS 125 Foreign Language Diction...........................2
MUS 421 Advanced Choral Conducting.......................1
MUS 422 Advanced Instrumental Conducting...............1
MUS 480 Vocal Literature..........................................2
MUS 491 Independent Study
(Instrumental Music Literature)................................2

Additional Requirements:

Foreign language (French and German).........................7
Accompany two half recitals in junior year with a singer
and an instrumentalist (solo recital may substitute for either
one).

Accompany two full recitals in senior year with a singer
and an instrumentalist.

Total Hours Required for Concentration 47

Total Hours Required for Major 91

Organ Concentration

APL 187/387 Applied Music Organ (max. 4 hrs./sem.) .....20
MUS 003 Junior Recital............................................0

Total Hours Required for Concentration 20

Total Hours Required for Major 64

Voice Concentration

APL 197/397 Applied Music Voice (max. 4 hrs./sem.).....20
MUS 003 Junior Recital............................................0
MUS 125 Foreign Language Diction...........................2
MUS 375 Opera Workshop.........................................1
MUS 470 Vocal Pedagogy.........................................2
MUS 480 Vocal Literature.........................................2

Additional requirements:

Foreign language (French and German).........................16

Total Hours Required for Concentration 43

Total Hours Required for Major 87
Orchestral/Band Instruments Concentration
Applied Music (max. 4 hrs./sem.)......................... 20
MUS 003 Junior Recital........................................ 0
MUS 491 Independent Study
(Instrumental Music Literature and Pedagogy).......... 2
Total Hours Required for Concentration 22
Total Hours Required for Major 66

Composition Major
Applied Music.................................................. 20
APL 180/380 Applied Music Composition........... 8
MUS 305 Counterpoint or
MUS 319 Composition (one taken in core).......... 2
MUS 401 Orchestration....................................... 2
MUS 405 Theories of Atonal Music...................... 3
Total Hours Required for Concentration 35
Total Hours Required for Major 79

Music Education Major
Music education majors must complete the requirements for one of the following concentrations:

Instrumental Concentration
Applied Music (7 semesters minimum)............... 14
MUS 115 Voice Class......................................... 1
MED 155 Brass Techniques................................ 2
MED 251 String Techniques.............................. 2
MED 252 Advanced String Techniques............... 1
MED 257 Percussion Techniques....................... 2
MED 322 Conducting II ................................... 2
MED 354 Woodwind Techniques....................... 2
MED 355 Advanced Woodwind Techniques......... 1
MUS 323 Marching Band Techniques.................. 1
MUS 401 Orchestration.................................... 2
Total Hours Required for Concentration 30
Total Hours Required for Major 74

Piano Concentration
APL 189/389 Applied Music Piano (min. 7 semesters)..... 14
MED 155 Brass Techniques................................. 2
MED 251 String Techniques.............................. 2
MED 257 Percussion Techniques....................... 2
MED 322 Conducting II ................................... 2
MUS 327 Accompanying, or
MUS 328 Accompanying (4 semesters)................ 4
MUS 331 Piano Pedagogy.................................. 2
MUS 354 Woodwind Techniques....................... 2
MUS 355 Advanced Woodwind Techniques......... 1
MUS 433 Piano Literature................................ 2
Total Hours Required for Concentration 33
Total Hours Required for Major 77

Vocal Concentration
APL 197/397 Applied Music Voice (min. 7 semesters)..... 14
MUS 125 Foreign Language Diction..................... 2
MED 155 Brass Techniques................................. 2
MED 251 String Techniques.............................. 2
MED 257 Percussion Techniques....................... 2
MED 322 Conducting II ................................... 2
MED 354 Woodwind Techniques....................... 2
MED 355 Advanced Woodwind Techniques......... 1
MUS 375 Opera Workshop............................... 2
MUS 470 Vocal Pedagogy.................................. 2
MUS 480 Vocal Literature................................ 2
Total Hours Required for Concentration 33
Total Hours Required for Major 77

Teacher Certification
Music students desiring to teach in the public schools must complete the BM degree with a major in music education and the requirements for teacher certification. Consult the College of Education and Health Sciences section of the catalog for specific requirements.

Students will be assigned an advisor in music and in the Department of Teacher Education. Regular consultation with both advisors is extremely important.

Professional Education Requirements:
ETE 100 Technology Applications........................ 1
ETE 115 Schools and Schooling in Am. Society........ 3
Note: Course may count toward the 6 hours required in the General Education requirement in Social Forces & Institutions
ETE 116 Field Experience.................................... 1
ETE 225 Human Development............................ 4
ETE 280 Exploring Diversity: Learners, Families and Communities................................. 3
ETE 342 Guiding Learners and Developing Classroom Communities................................. 3
ETE 351 Elementary School Music for Music Majors..... 3
ETE 352 Secondary School Music............................ 3
ETE 360 Teaching Reading in the Content Field......... 3
ETE 381 Field Exp. in Elem. Music Teaching............. 1
ETE 382 Field Exp. in Secondary Music Teaching........ 1
ETE 490 Student Teaching Professional Portfolio....... 1
ETE 498 Student Teaching in the Elem. School......... 7
ETE 499 Student Teaching in the Secondary School.... 7
Total Required Education Hours for Degree 41
Bachelor of Arts or Bachelor of Science Degree with a Major in Music (Music Business)

Applied Music (min. of 4 semesters) .......................... 8
Ensemble (Each semester) ................................. 4-8
MUS 001 Recital Lab (Each semester) ................. 0
MUS 161 Music Theory I .................................. 2
MUS 162 Music Theory II ................................. 2
MUS 163 Elementary Ear-training and Sight Singing .... 1
MUS 164 Elementary Ear-training and Sight Singing .... 1
MUS 165 Keyboard Skills .................................. 2
MUS 166 Keyboard Skills .................................. 2
Two of the following:
MUS 235 Music in Its Hist. Persp. I ....................... 3
MUS 236 Music in Its Hist. Persp. II ....................... 3
MUS 335 Music in Its Hist. Persp. III .................... 3
MUS 336 Music in Its Hist. Persp. IV .................... 3
MUS 101 Intro to Music Business ......................... 3
MUS 301 Contemporary Issues in Music Business .... 3
CFA 301 Cooperative Education/Internship ............ 2-6
ATG 157 Accounting Principles .......................... 3
BMA 352 Managing in Organizations ..................... 3
MTG 315 Principles of Marketing ......................... 3
FIN 322 Business Finance ................................... 3
ECO 100 or ECO 221 ......................................... 3
MTG 304 Professional Selling ............................ 3
MTG 393 Retailing or MTG 410 Services Marketing .... 3

Total Hours Required 63*

*43 of the required 63 hours must be earned through Music coursework.

Courses in the Music Business major may not be used to satisfy the requirements for a minor in the College of Business.

Minor Requirements

The Department of Music offers one minor.

Music Minor

Applied Music (4 semesters) .......................... 4
MUS 109 Music Appreciation, or
MUS 203 History of Music ......................... 3
MUS 141/341, 142/342, 143/343, 144/344, 145/345, or 146/346 ......................... 4
MUS 161 Music Theory I ......................... 2
MUS 162 Music Theory II ......................... 2
MUS 163 Ear Training and Sightsinging ............. 1
MUS 164 Ear Training and Sightsinging ............. 1
MUS 165 Keyboard Skills ......................... 2
MUS 166 Keyboard Skills ......................... 2
MUS 235, 236, 335, or 336 Music in Its Historical Perspective I, II, III, or IV ................. 3

Total Music Hours Required for Minor 24

Applied Music

1. Private lessons offered by the Department of Music are open to all University students but enrollment is limited to available staffing. As a result, priority for enrollment is given on the following basis: (1) music majors, (2) music minors, (3) other full-time University students, (4) other part-time University students.

2. Beginners normally enroll in class instruction instead of private lessons.

3. Students wishing to enroll in private lessons must see a full-time faculty member in the respective area in order to be assigned an instructor.

4. An additional fee is charged for private lessons, which includes the use of a practice room.

5. Students enrolled for applied music are expected to practice a minimum of one hour a day for each hour of credit being received.

6. A jury exam at the end of the semester is required for all music majors, music minors, and other students enrolled for 2 hours or more of credit.

7. Private lessons are not given during final examination periods.

8. Individual lessons missed during the semester will not be made up unless satisfactory notice is given to the instructor at least one day before the absence.

9. Private lessons are 30 minutes or 1 hour per week based upon the student’s enrollment objective:

BA/BS in music
1 hr. credit .......................................................... ½ hr. lesson
2 hrs. credit .......................................................... 1 hr. lesson
BM in performance (4 hrs. credit) .................. 1 hr. lesson
BM in music education (2 hrs. credit) ............ 1 hr. lesson
BM in composition (2 hrs. credit) .................. 1 hr. lesson
Non-music major (1 hr. credit) .................... ½ hr. lesson

10. Applied Music course numbers and instructors:

APL 177, 377 Bassoon: Ms. Dixon
APL 178, 378 Cello: Ms. Phelps
APL 179, 379 Clarinet: Dr. Heinemann, Ms. Cramer
APL 180, 380 Composition: Dr. Heinemann, Mr. Sheldon
APL 181, 381 Euphonium: Dr. Magliocco
APL 182, 382 Flute, Piccolo: Dr. Dzapo
APL 183, 383 Guitar: Mr. Hull
APL 185, 385 Horn: Dr. Vroman
APL 186, 386 Oboe: Mr. Duncan
APL 187, 387 Organ: Ms. Kaizer
APL 188, 388 Percussion: Ms. Bonner
APL 189, 389 Piano: Dr. Kaizer, Ms. Kaizer, Mr. Russell
APL 190, 390 Saxophone: Mr. Zimmerman
APL 191, 391 String Bass: Mr. Dollinger
APL 192, 392 Trombone: Dr. Magliocco
APL 193, 393 Trumpet: Dr. Kelly
APL 194, 394 Tuba: Mr. Solomonson
APL 195, 395 Viola: Ms. Henry
APL 196, 396 Violin: Ms. Henry
APL 197, 397 Voice: Dr. Jost, Dr. Walters, Ms. Salazar, Ms. Wright
APL 198, 398 Instrument

Course Descriptions

**MUS 001 Recital Laboratory** 0 hrs.
Opportunity to perform and to listen critically, under faculty guidance. Discussion of topics of interest to music majors. Attendance required of all music students. Majors must perform at least once each semester, at teacher's discretion, and attend 10 concerts each semester. Grade based on concert and workshop attendance.

**MUS 002 Senior Recital** 0 hrs.
Required for B.M. and B.M.E. May be given in first or second semester of senior year.

**MUS 003 Junior Recital** 0 hrs.
Public performance guided by applied music faculty. Required for the Bachelor of Music degree in Performance. May be given in first or second semester of junior year.

**MUS 101 Introduction to Music Business** 3 hrs.
Survey of the music business industry: music publishing, the recording industry, copyright law, performance rights, music products retailing, and arts management.

**MUS 105 Elements of Music** 3 hrs.
Beginning theory, music reading, and piano. Recommended for elementary education majors, other non-music majors, and music majors with deficiency in music background at time of entrance. Prerequisite: elementary education major or consent of instructor.

**MUS 107 The Language of Music** 1 hr.
Introduction to elements of music, notational terminology, and music styles (Baroque, Classic, and Romantic). Taught by 7 videotapes viewed in Cullom-Davis Library. Not open to students with credit in MUS 109.

**MUS 109 Music Appreciation** 3 hrs. (Gen. Ed. FA)
Detailed study of elements of music, and music notation; general survey of music and composers. How music expresses and communicates feelings and ideas: listening to compositions from various periods. Performance by faculty artists in class, and outside listening experiences. Satisfies fine arts general education requirement. Prerequisite: non-music majors only.

**MUS 115 Voice Class** 1 hr.
For freshman elementary education majors and instrumental music majors. Prerequisite: MUS 105 or music major; consent of instructor.

**MUS 125 Foreign Language Diction for Singers** 2 hrs.
International Phonetic Association symbols for Italian, German, and French songs. Rules of pronunciation; special emphasis on vocal demands.

**MUS 140 Piano Class for Adult Beginners** 1 hr.
Elementary piano for non-music majors.

**MUS 141, 341 Orchestra** 1 hr.
Participation in Bradley Symphony Orchestra, Peoria Symphony Orchestra, or Knox-Galesburg Symphony. One hour credit for each ensemble. Two sections may be taken each semester; may be repeated for a maximum of 16 hours credit. Prerequisites: separate audition required for each ensemble; consent of instructor.

**MUS 142, 342 University Bands** 1 hr. each semester
Symphonic Winds, Symphonic Band, basketball band. Concerts on campus and out of town. Open to all students. Prerequisites: audition and consent of instructor.

**MUS 143, 343 Bradley Community Chorus** ½ hr. each semester
Presents two major choral works with orchestra each year. Open to all students. Prerequisites: audition and consent of instructor.

**MUS 144, 344 Bradley Chorale** 1 hr. each semester
Study and performance of choral music from all periods of music history: accompanied and unaccompanied works. Prerequisites: audition and consent of instructor.

**MUS 145, 345 Women's Choir** 1 hr. each semester
Study and performance of choral music for women's voices. Concerts on and off campus. Admission by audition and consent of instructor.

**MUS 146, 346 Jazz Band** 1 hr. each semester
Study and performance of jazz from all eras. Concerts on campus and out-of-town. Prerequisite: open to all students by audition.

**MUS 161 Music Theory I** 2 hrs.
Basic properties and notation of tone; diatonic scale systems; intervals; melodic organization; homophonic and contrapuntal two- and three-voice combinations. Prerequisite: music major or consent of instructor.

**MUS 162 Music Theory II** 2 hrs.
Continuation of MUS 161: chord structures, decorative pitches, harmonic successions, four-voice combinations, inversions, seventh chords, secondary dominants, and modulations. Prerequisite: music major or consent of instructor.
MUS 163, 164 Elementary Ear-Training and Sightsinging 1 hr. each semester
Aural theory; intervals, triads, and inversions; rhythmic, melodic, and harmonic dictation. Prerequisite: music major or consent of instructor.

MUS 165, 166 Keyboard Skills - Class Piano 2 hrs. each semester
Development of keyboard facility: scales, improvisation, sight reading, transposing, and performance of elementary piano literature. Development of music-reading facility: theoretical aspects of music such as scales, functional harmony, and intervals. Self-paced. Prerequisite: music major or consent of instructor; MUS 165 required for MUS 166.

MUS 203 History of Music 3 hrs. (Gen. Ed. FA)
Music in historical perspective, Middle Ages to present; relationship to social and political atmosphere of each era. Review of basic music fundamentals and terminology; selected examples of musical works. Prerequisites: CIV 100; non-music major.

MUS 235 Music in Its Historical Perspective I 3 hrs.
Music and its development in Western civilization: to 1600. Emphasis on acquaintance with and analysis of representative musical works and style, and on understanding of musical concepts in historical context. Prerequisite: music major or consent of instructor.

MUS 236 Music in Its Historical Perspective II 3 hrs.
Music and its development: Baroque through Classical. Emphasis on acquaintance with and analysis of representative musical works and style, and on understanding of musical concepts in historical context. Prerequisite: music major or consent of instructor.

MUS 239 Counterpoint 2 hrs.
Contrapuntal practices of the 18th century. Prerequisites: MUS 261 and 263, or equivalent.

MUS 271, 272 Jazz Improvisation 2 hrs. each semester
Theoretical principles in jazz; application to ultimate goal of a highly developed and musical performance. Rehearsals. Prerequisite: music major or concurrent enrollment in MUS 142 or 342.

MUS 301 Contemporary Issues in Music Business 3 hrs.
Overview of contemporary issues that are impacting the music business industry. Individual research in primary field of interest. Prerequisite: MUS 101.

MUS 305 Composition 2 hrs.
Compositions in smaller forms for voice, piano, and instruments in various combinations. Prerequisite: MUS 262 or consent of instructor.

MUS 263, 264 Ear-Training and Sightsinging 1 hr. each semester
Continuation of MUS 163, 164: aural recognition of various types of seventh and ninth chords; melodic and harmonic dictation, including chromatically altered chords and modulation. Prerequisites: MUS 163, 164; or consent of instructor.

MUS 265, 266 Advanced Keyboard Skills - Class Piano 2 hrs. each semester
Continuation of MUS 165, 166, including sightreading and additional chord progressions. Prerequisite: MUS 166 or consent of instructor; MUS 265 or consent of instructor required for MUS 266.

MUS 309, 310 Ensemble 1 hr. each semester for each section
Repertoire for small ensembles (vocal or instrumental), including Collegium Musicum. Workshop recitals.

MUS 319 Piano Pedagogy 2 hrs.
Principles and methods of teaching piano: lectures, demonstrations, and observations. Prerequisite: consent of instructor.
MUS 335, 336 Music in Its Historical Perspective III, IV 3 hrs. each semester
Music and its development: 19th century (MUS 335) and 20th century (MUS 336). Emphasis on acquaintance with and analysis of representative musical works and style, and an understanding of musical concepts in historical context. Prerequisite: music major or consent of instructor.

MUS 350 Intermediate Music Technology 3 hrs.
Continuation of MUS 250. Emphasis on computer applications, recording, and the Internet. Prerequisite: MUS 250.

MUS 375 Opera Workshop 1 hr.
Operatic literature, style, stage deportment, and presentation of scenes. May be repeated for a maximum of 4 credit hours. Prerequisite: vocal music concentration or consent of instructor.

MUS 401 Orchestration 2 hrs.
Symphonic scoring and scoring for school bands and choirs. Prerequisite: MUS 261, 262, and senior standing.

MUS 405 Theories of Atonal Music 3 hrs.
Introduction to analytical and compositional techniques of atonal music, with emphasis on pitch-class set theory. Prerequisite: MUS 262 or consent of instructor.

MUS 421 Advanced Choral Conducting 1 hr.
Continuation of Conducting II. Emphasis on full score reading and practical experience conducting the chorus or cho- rale. Prerequisite: MED 322.

MUS 422 Advanced Instrumental Conducting 1 hr.
Continuation of Conducting I. Emphasis on full score reading and practical experience conducting the band or orchestra. Prerequisite: MED 321.

MUS 431 Laboratory Teaching – Piano 2 hrs.
Supervised teaching of piano: private and class lessons. Prerequisite: MUS 331.

MUS 433 Piano Literature 2 hrs.
Survey of piano compositions: Baroque period into the 20th century. Performance, discussion, and analysis.

MUS 470 Vocal Pedagogy 2 hrs.
Introduction to the anatomy and physiology of the vocal mechanism in relation to the art of singing in theory and practice. Includes laboratory teaching experience. Prerequisites: vocal music major with junior standing or consent of instructor.

MUS 480 Vocal Literature 2 hrs.
Song literature for the solo voice; poetry and settings beginning with English lutenist airs. Monody, arias, and cantatas of the Baroque and Classic periods; songs of contemporary composers. Prerequisites: MUS 335, 336; or consent of instructor.

MUS 491 Independent Study in Music 1-3 hrs.
Directed independent study in a selected area of music or music education; weekly meetings with the instructor. May be repeated for a maximum of 6 hours credit. Prerequisite: senior standing or consent of instructor.

Music Education

MED 155 Brass Technique, Materials & Methods 2 hrs.
Brass instruments; emphasis on teaching methods and literature.

MED 251 String Technique, Materials & Methods 2 hrs.
Methods of teaching strings; participation in group performance on all string instruments.

MED 252 Advanced String Technique, Materials & Methods 1 hr.
Continuation of MED 251: specialization in one of the string instruments. Evaluation of grade school materials. Prerequisite: MED 251 or consent of instructor.

MED 257 Percussion Technique, Materials & Methods 2 hrs.
Playing and teaching all percussion instruments used in school bands and orchestras.

MED 321 Conducting I 2 hrs.
Technique of the baton; gestures and learning independence of hands. Short score reading and rehearsal. Conducting the class in short exercises. Prerequisite: junior standing in music.

MED 322 Conducting II 2 hrs.
Continuation of MED 321: conducting problems and rehearsal techniques for instrumental and choral groups. Conducting the band and chorus. Full score reading. Prerequisites: MED 321 or consent of instructor; junior standing.

MED 354 Woodwind Technique, Materials & Methods 2 hrs.
Study of clarinet, flute, and oboe; emphasis on teaching techniques and literature.

MED 355 Advanced Woodwind Technique, Materials & Methods 1 hr.
Continuation of MED 354: bassoon, saxophone, and continued study of clarinet. Evaluation of grade school materials and methods. At least 5 hours observation of woodwind teaching. Prerequisite: MED 354 or audition.
The production concentration portfolio consists of material such as photographs; drafting, drawings, and sketches of scenery, props, costumes, art, and/or make-up projects; light plots; CAD projects; sound recording; and a stage manager’s promptbook. The entire portfolio presentation review should not exceed 10 minutes.

Major Requirements
In addition to university and college requirements, theatre arts majors must earn a C or better in every required course for the major and maintain a 2.5 grade point average in all theatre courses.

Students may not enroll in a theatre arts course for which a required course is a prerequisite unless they have earned a C or better in the required course.

Bachelor of Arts or Bachelor of Science with a Major in Theatre Arts
All majors must complete the following requirements. Completion of a concentration in performance of production is optional.

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
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<tbody>
<tr>
<td>THE 115</td>
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<td>THE 121</td>
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<td>THE 125</td>
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<td>THE 439</td>
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<tr>
<td>Practicum</td>
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Total hours required for major 39

*Note: this course does not satisfy the General Education Fine Arts requirement for Theatre Arts majors.
Performance Concentration
Audition required.
Major requirements, plus:
THE 201 Voice for the Actor* .................................................. 3
THE 203 Movement for the Actor* .......................................... 3
THE 215 Intermediate Acting ................................................. 3
THE 310 Junior Seminar .................................................... 3
THE 315 Advanced Acting** .................................................. 3
THE 410 Senior Seminar ..................................................... 1
THE 415 Acting: Period Styles .................................................. 3
Total additional hours required for the concentration 19

*Students interested in directing may substitute THE 201 or THE 203 with one of the following courses: THE 326, THE 329, or THE 330.

** Students interested in directing must substitute THE 315 for three credit hours of THE 317.

Production Concentration
Audition required in addition to portfolio review.
Major requirements, plus:
THE 225 Advanced Stagecraft* ............................................... 3
THE 229 CADD for Theatre* .................................................. 3
THE 310 Junior Seminar .................................................... 3
THE 326 Stage Lighting ....................................................... 3
THE 329 Scenic Design ...................................................... 3
THE 330 Costume Design .................................................... 3
THE 410 Senior Seminar ..................................................... 1
Total additional hours required for the concentration 19

* These courses may be taken during the sophomore or senior year.

Minor Requirements
The Department of Theatre Arts offers a minor. Theatre Arts minors are encouraged to take THE 131 Introduction to Theatre as their General Education Fine Arts course.
THE 115 Fundamentals of Acting ............................................... 3
THE 121 The Creative Process of Theatre .................................. 3
THE 125 Stagecraft .............................................................. 3
THE 131 Introduction to the Theatre (Gen. Ed. FA) ..................... 3
THE 141 Film Appreciation (Gen. Ed. FA) ........................................ 3
THE 201 Voice for the Actor ................................................... 3
THE 203 Movement for the Actor .......................................... 3
THE 215 Intermediate Acting ................................................. 3
THE 216 Acting: Physical Styles ............................................... 3
THE 217 Dramaturgy ........................................................... 3
Total hours required for the minor ......................................... 18

Course Descriptions

THE 107, 108 Practicum ......................................................... .5 hrs. each
Variety of theatre assignments and performance responsibility working on productions.

THE 115 Fundamentals of Acting ........................................... 3 hrs.
An introduction to the theories, principles, and practices of acting for the stage.

THE 121 The Creative Process of Theatre .................................. 3 hrs.
An introduction to the theory and practice of theatrical collaboration with an emphasis on the creative process, theatre vocabulary, aesthetics, modes of expression, and script analysis.

THE 125 Stagecraft .............................................................. 3 hrs.
An introduction to the principles and practices of scenic construction, safety, painting, and lighting. Explores types and utilization of scenery for theatre. Practical application through projects and work in the University Theatre.

THE 131 Introduction to the Theatre (Gen. Ed. FA) ..................... 3 hrs.
Encouraging audience appreciation of the theatre through attending area theatre activities, discussions, and supplementary readings.

THE 141 Film Appreciation (Gen. Ed. FA) ........................................ 3 hrs.
Encouraging audience appreciation of film art by surveying film history, genres, and technique through lecture, discussion, supplemental reading, and the viewing of domestic and foreign films.

THE 201 Voice for the Actor ................................................... 3 hrs.
Theories, principles, and practices of vocal production for the stage. Prerequisites: THE 115, THE 121, THE 131, and acceptance in the Performance Concentration or consent of instructor and department chair.

THE 203 Movement for the Actor .......................................... 3 hrs.
Theories, principles, and practices of physicalization and movement for the stage. Prerequisites: THE 115, THE 121, THE 131, and acceptance in the Performance Concentration or consent of instructor and department chair.

THE 207, 208 Practicum ......................................................... .5 hrs. each
Continuation of THE 107, THE 108. Prerequisite: THE 107 or THE 108 or consent of instructor and department chair.

THE 215 Intermediate Acting ................................................. 3 hrs.
Continuation of THE 115 focusing on the performance of American realism through script analysis and scene study. Prerequisites: THE 115, THE 121, THE 131, and acceptance in the Performance Concentration or consent of instructor and department chair.

THE 216 Acting: Physical Styles ............................................... 3 hrs.
Exploration of physical approaches to the creation of theatre. Prerequisite: THE 115.
THE 223 Theatrical Producing 3 hrs.
The work of the theatrical producer and business manager in the area of arts management with an emphasis on theatrical organization; production management; audience development; budgeting; advertising and publicity; sales and box office procedures; and front-of-house operations. Prerequisites: THE 121, THE 131, or consent of instructor and department chair.

THE 225 Advanced Stagecraft 3 hrs.
A continuation of THE 125. Advanced principles and practices of scenic construction, safety, cutting, stitching, and draping. Explores types and utilization of costuming for theatre. Practical application through projects and work in the University Theatre. Prerequisites: THE 226 and acceptance into the production concentration or consent of instructor and department chair.

Principles, practices, and concepts of scenic, lighting, costume, and sound design, as well as theatre graphics skills. Prerequisites: THE 121, THE 125, THE 131, or acceptance into the production concentration or consent of instructor and department chair.

THE 227 Make-up for the Stage 3 hrs.
Instruction and practical experience with make-up for the stage: types, application methods, and design techniques.

THE 229 CADD for Theatre 3 hrs.
Instruction and practical experience with computer aided drafting and design (CADD) for use in theatre production: software, hardware, application methods, and rendering techniques. Prerequisites: THE 226 and acceptance into the production concentration or consent of instructor and department chair.

THE 230 Costume Construction 3 hrs.
An introduction to the principles and practices of costume construction, including safety, cutting, stitching, and draping. Explores types and utilization of costuming for theatre. Practical application through projects and work in the University Theatre.

THE 231 Stage Combat 3 hrs.
A performance course focused on the concepts and techniques utilized in the advanced stage movement skill of stage combat with emphasis on hand-to-hand and Elizabethan rapier styles. Prerequisite: THE 115 or consent of instructor and department chair.

THE 232 Stage Lighting 3 hrs.
Instruction and experience with stage lighting techniques and design concepts. Basic electricity, instrument optics, color application, and stage lighting theory provide background for creative design and lighting control. Prerequisites: THE 226 and acceptance into the production concentration or consent of instructor and department chair.

THE 236 Scenic Design 3 hrs.
New products and different uses of old or existing materials for stage settings, properties, costumes, and make-up. Prerequisites: THE 225, THE 230 or consent of instructor and department chair.

THE 237 Sound Design 3 hrs.
Instruction and experience with sound design and reinforcement techniques. Basic sound technology, editing, microphone, speaker, and amplification techniques taught through lecture and demonstration. Prerequisite: THE 226 or consent of department chair.

THE 301 Practice in Directing 1-3 hrs.
Practical application of directing concepts and skills: planning, rehearsal, and performance for laboratory theatre production. May be repeated for up to 15 hours. Prerequisite: THE 316 and consent of instructor and department chair.

THE 302 Advanced Acting 3 hrs.
Continuation of THE 215. Further development of the acting process focusing on various theatrical genres. Prerequisites: THE 201 or THE 203; THE 215; acceptance into the performance concentration or consent of instructor and department chair.

THE 303 Stage Combat 3 hrs.
Continuation of THE 207, THE 208. Prerequisite: THE 207 or THE 208 or consent of instructor and department chair.

THE 304 Practicum 3 hrs.
A preparatory course exploring opportunities for graduate school, internships, and employment in the performing arts. Prerequisites: THE 115, THE 121, THE 131, THE 226, or consent of instructor and department chair.

THE 305 Junior Seminar 3 hrs.
A preparatory course exploring opportunities for graduate school, internships, and employment in the performing arts. Prerequisites: THE 115, THE 121, THE 131, THE 226, or consent of instructor and department chair.
THE 335 Theatre for Children and Creative Dramatics 3 hrs.
Theatre produced for the young audience or by children: appropriate literature, production techniques, and techniques of creative dramatics.

THE 336 History of Theatre & Drama I 3 hrs.
The origins of theatrical and dramatic impulses in ancient cultures as well as the history of theatre and drama in the classical and medieval periods. Prerequisite: THE 121 and THE 131 or consent of instructor and department chair.

THE 337 History of Theatre & Drama II 3 hrs.
Theatre history and drama in the Renaissance, Restoration, Neoclassical, and Romantic periods (late 16th, 17th, 18th and early 19th centuries). Prerequisite: THE 336 or consent of instructor and department chair.

THE 338 History of Theatre & Drama III 3 hrs.
Modern and contemporary theatre and drama beginning with realism and naturalism in the late 19th century up to the present day. Prerequisite: THE 337 or consent of instructor and department chair.

THE 407, 408 Practicum .5 hrs. each
Continuation of THE 307, THE 308. Prerequisite: THE 307 or THE 308 or consent of instructor and department chair.

THE 410 Senior Seminar 1-3 hrs.
Special research or performance projects initiated by seniors to demonstrate integrated learning and theatre expertise. Problems and methods in various areas of theatre study. Prerequisite: consent of Department Chair.

THE 415 Acting: Period Styles 3 hrs.
Continuation of THE 315. Further development of the acting process focusing on Shakespeare and period styles. Prerequisites: THE 201, THE 203, THE 315, THE 336, and acceptance into the performance concentration or consent of instructor and department chair.

THE 423 Theatrical Management 1-3 hrs.
Practical application of business concepts and skills related to theatrical management: leadership and management; audience development; budgeting; advertising and publicity; sales and box office procedures; and house management. May be repeated up to 15 hours. Prerequisites: THE 223 and consent of instructor and department chair.

THE 439 Global Encounters in Theatre 3 hrs.
Exploration of historical and contemporary non-Western theatre traditions and dramatic literature. Prerequisite: THE 336, or consent of instructor and department chair.

THE 494 Theatre Arts Expedition 1-3 hrs.
Students travel to observe and/or to engage in creative production making use of the resources of the particular location. Advanced study and/or experiences in theatre settings. May be repeated up to 9 hours. Topics, destinations, and prerequisites stated in current Schedule of Classes.

THE 498 Explorations in Theatre Arts 1-3 hrs.
Advanced work in performance and production. May be repeated up to a maximum of 15 semester hours. Topics listed in current Schedule of Classes. Prerequisite: consent of department chair.
You may click on a link below to navigate to that section.

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College of Education and Health Sciences

The mission of the College of Education and Health Sciences (EHS) at Bradley University is to prepare leaders within the human service professions. The college provides undergraduate and graduate innovative programs through excellence in teaching, scholarship, and collaboration with interdisciplinary and community-based partnerships. This dynamic learning environment prepares graduates to provide services in a diverse and global society to enhance human resources and to foster life-long learning. Presently, the College provides its students with distinctive professional programs and the support environment that will aid in preparing them for future responsibility and desired leadership roles as counselors, educators, specialists in family and consumer sciences, nurses, physical therapists, other health care specialists, and administrators within these disciplines.

Employing a comprehensive, integrated services model, the College blends the education and health care disciplines in the curriculum and provides collaborative opportunities for students and professionals in teaching, learning, and applied research.

The College strives to make its coursework and experiences relevant by emphasizing strong content knowledge with laboratory practice of professional skills—and ultimately through practical field-based experiences. From the beginning of each student’s program, there is exposure to practicing professionals in the career world. The College faculty and cooperating regional educators and health care personnel share their expertise regarding career problems and rewards, with expectations for professional improvements.

The College prides itself in its student-oriented philosophy, in which there is the belief that each student deserves individual personal attention combined with academic rigor. The College does not expect to prepare a large number of graduates, but instead, a small number of tomorrow’s professional leaders. The faculty expects that its graduates demonstrate high quality professional skills, and the College expresses pride in the identifiable professional attitudes of its graduates.

Students who maintain continuous enrollment and who complete work toward the baccalaureate degree within five years from the date of entry may graduate under either the catalog in effect at the time of entrance or under the catalog in effect at the time of graduation. A change in major could mean meeting new requirements in force at the time of the change as a condition for acceptance into that major. Students whose work has been interrupted for one or more semesters may be held to requirements in effect at the time of their re-enrollment.

General Education Requirements
The following requirements exist for all students, regardless of major field. Courses should be selected in careful consultation with advisors.

English Composition
6 semester hours, including English 101 and a 3-semester-hour 300-level advanced writing course approved by the student’s major department.

Communication 103
3 semester hours

Mathematics
3 semester hours. Every student must demonstrate proficiency in mathematics. Depending upon the major, each student will choose an appropriate course from an approved list.

Computer Usage
Bradley University requires its graduates to possess sufficient computer and technological skills to identify, access, and process the data and the networked information resources appropriate to the individual discipline. Each student should check with his/her advisor to determine the way in which this requirement will be met.

Western Civilization
3 semester hours

Non-Western Civilization
3 semester hours. Each student must choose one course from an approved list.

Human Values
3 semester hours. Each student must choose one course from an approved list.

Fine Arts
3 semester hours. Each student must choose one course from an approved list.
Social Forces and Institutions
6 semester hours. Courses must be selected from an approved list.

Science and Technology
6 semester hours. Courses must be selected from an approved list of basic science courses and a list of technology related courses.

Each general studies course selection must be selected in consultation with the student’s academic advisor.

Global Scholars
Professionals in the fields of education and health sciences are challenged with a complex global reality. Awareness of global developments and cross-cultural competencies are crucial in dealing with differences and learning from people of other cultures.

The Global Scholars Program is designed to prepare professionals for this international state of affairs. The Global Scholars Program (GSP) can be earned in your program in the College of Education and Health Sciences regardless of your major. Your designation as a Global Scholar will assist you in job searches in your profession.

Students majoring in education, health science, nursing, or family and consumer sciences have the unique opportunity to earn the Global Scholar recognition of achievement in global studies. The Global Scholar may be earned with any degree and major offered within the College of Education and Health Sciences; completion entails neither additional expense nor additional time to graduate if planned early in your program at Bradley.

As a Global Scholar you will…

• demonstrate increased awareness and appreciation of cultural, ethnic, and disciplinary backgrounds.
• identify and analyze crucial factors in developing global and cross-cultural communication and attending to issues of diversity in your profession.
• demonstrate greater awareness for global perspectives in communication, collaboration, diversity, and professional networking.
• collaborate and communicate effectively with colleagues and other professionals within one’s own and other cultures.
• demonstrate aspects of international culture and human behavior.

Global Scholars Program Requirements:
Seventeen to 20 semester hours at Bradley University plus international/global campus activities, service activities, and participation in internationally focused seminars.

Foreign Language
One to 3 hours to be approved by departmental Global Scholar Advisor, e.g., one semester in foreign language, proficiency equivalency, immersion course when studying abroad.

General Education
Nine hours of general education courses focused on international, human values orientation to be approved by the departmental Global Scholar Advisor from approved department list.

Departmental International/Multicultural Course
One 3-hour course from the student’s major.
ETE 280, ETE 553
FCS 338, FCS 433, FCS 438, FCS 406
For HS: ELH 370 & 375 (concurrently)
ELH 586
NUR 333, NUR 533

Study Abroad
Minimum of 4 semester hours earned from study abroad.

EHS 300 Professionalism Across Cultures
Required 1-hour course taught by an interdisciplinary team.

International/Global Focused Campus Activities
Twenty hours of activity approved by departmental Global Scholar Advisor. Five of these hours are service related.

Focused Seminars
Participation in two or more internationally focused seminars sponsored by departments or college faculty.

Minor in Health
The minor in health is designed to provide students with a broad base of knowledge for healthful living. Courses required in the minor include aspects of health from a variety of disciplines that assist the individual in health promotion and maintenance and disease prevention. The interdisciplinary approach outlined in the health minor provides students with a wide selection of courses and a maximum degree of interaction among the disciplines.

Students who elect to minor in health may declare their intention by completing the appropriate forms in the Associate Dean’s Office of the College (Westlake Hall, Room 210). Such students must meet the requirements in force at the time they declare the minor.

A minimum of 18 semester hours is required for the minor: nine hours of required courses and nine hours of electives. A minimum of 3 semester hours at the 300 level as a minor. The requirements for the minor are outlined below.

*Required courses ..........................................................9
FCS 303 Nutrition ...........................................................3
NUR 263 Intro. to Personal & Community Health ............3
PSY 245 Personality and Adjustment or
PSY 445 Abnormal Psychology ....................................3

Electives (choose 3-4) .....................................................9
BIO 202 Microbiology and Immunology ................................4
BIO 300 Population, Resources and Environment ............3
BIO 301 Biotechnology and Society ................................3

* Prerequisite for FCS 303 is BIO 121 or 122 or CHM 100; prerequisite for PSY 245 is 104; prerequisite for PSY 445 is 6 hrs. in psychology.
### Group A. School-Aged Child Area of Interest

Select a minimum of 9 hours from the following courses:

- BIO 202 Microbiology and Immunology \(\ldots\) 4
- **NUR 163 The School Age Child** \(\ldots\) 3
- NUR 220 Alcohol: Use and Abuse \(\ldots\) 3
- NUR 221 Substance Abuse \(\ldots\) 3
- NUR 233 Sexually Transmitted Diseases \(\ldots\) 1
- NUR 353 Aging: A Life Experience \(\ldots\) 3
- NUR 372 Safety and Emergency Care \(\ldots\) 3
- NUR 376 Advanced Concepts in Health \(\ldots\) 3
- PSY 304 Developmental Psychology \(\ldots\) 3
- PSY 314 Adult Development and Aging \(\ldots\) 3
- SOC 341 Medical Sociology \(\ldots\) 3
- ELH 540 Human Growth and Development \(\ldots\) 3

### Group B. Adult and/or Aging Area of Interest

Select a minimum of 9 hours from the following courses:

- FCS 410 Advanced Nutrition \(\ldots\) 4
- FCS 411 Medical Nutritional Therapy \(\ldots\) 4
- NUR 219 Women and Health \(\ldots\) 3
- NUR 333 International Health and Nursing \(\ldots\) 3
- **NUR 376 Advanced Concepts in Health** \(\ldots\) 3
- SOC 341 Medical Sociology \(\ldots\) 3

### Group C. Community Health Area of Interest

Select a minimum of 9 hours from the following courses:

- BIO 300 Population, Resources and Environment \(\ldots\) 3
- CHM 300 Chemistry and Civilization \(\ldots\) 3
- FCS 301 Nutrition Today \(\ldots\) 3
- FCS 410 Advanced Nutrition \(\ldots\) 4
- FCS 411 Medical Nutritional Therapy \(\ldots\) 4
- NUR 219 Women and Health \(\ldots\) 3
- NUR 333 International Health and Nursing \(\ldots\) 3
- **NUR 376 Advanced Concepts in Health** \(\ldots\) 3
- SOC 341 Medical Sociology \(\ldots\) 3

**Minor in Leadership Studies**

The minor in leadership studies is designed to provide students the information, experience, and opportunities necessary for them to gain an in-depth knowledge of the theory and practice of leadership. The interdisciplinary leadership studies program will integrate the many opportunities students currently have for leadership on the campus and in the community.

Students who elect to minor in leadership studies may declare their intention by completing the appropriate forms in the Associate Dean’s Office of the College of Education and Health Sciences (Westlake Hall, Room 210).

A minimum of 18 semester hours is required for the minor: 12 hours of required courses and six hours of electives. Students must achieve a minimum GPA of 2.0 in all courses in the minor for official designation as a minor. The requirements for the minor are outlined below.

*Required Courses* \(\ldots\) 12

- ELH 200 Introduction to Leadership Studies \(\ldots\) 3
- ELH 300 Advanced Leadership Studies \(\ldots\) 3
- ELH 486 Leadership Practicum \(\ldots\) 3
- Three hours from: ELH 380 Independent Study and/or ELH 381 Seminar in Leadership \(\ldots\) 3

**Elective Courses** \(\ldots\) 6

- BMA 352 Managing in Organizations \(\ldots\) 3
- BMA 357 Leadership & Interpersonal Behavior \(\ldots\) 3
- ELH 370 Human Relations Development \(\ldots\) 2
- ELH 375 Human Relations Laboratory \(\ldots\) 1
- PHL 347 Ethics \(\ldots\) 3
- PLS 202 State & Local Government \(\ldots\) 3
- PLS 419 Introduction to Public Administration \(\ldots\) 3
- PLS 420 Public Personnel Management \(\ldots\) 3
- SOC 313 Race, Ethnicity, and Power \(\ldots\) 3

Total: 18
Cooperative Education/Internship Program
The College participates with employers in an optional Cooperative Education/Internship Program. Students either alternate periods of full-time study with full-time employment or have part-time employment while attending classes. The program provides academic- or career-related work experiences. To be eligible, the student must have sophomore standing and a 2.0 minimum overall grade point average at Bradley and in the College of Education and Health Sciences; a nursing student must have senior standing and a 2.5 minimum overall grade point average at Bradley. (See Cooperative Education/Internship in EHS or Cooperative Education in Nursing.)

EHS 300 Professionalism Across Cultures 1-3 hrs.
Awareness, acceptance, and appreciation of diversity, whether resulting from cultural, disciplinary, linguistic, or geographical differences. Emphasis on the professionals’ roles of communicating effectively with colleagues across disciplines and cultures. Prerequisite: identified global scholar or consent of instructors.

EHS 301 Cooperative Education or Internship in EHS 0-9 hrs.
Cooperative education or internship experience. May be repeated to a combined total of 9 credit hours. Pass/Fail. Prerequisites: sophomore standing in the College of Education and Health Sciences, 2.0 Bradley overall grade point average and EHS cumulative grade point average, consent of EHS Co-op and Internship coordinator and Co-op and Internship faculty advisor.

EHS 305 Study Abroad Seminar 1 hr.
Study of the cultural and historical contexts of study abroad site. Prerequisite: registration for study abroad interim session.

NUR 405, 406 Cooperative Education in Nursing (Theory) 0-1 hrs. each
Theory for nursing care of clients in a variety of health care settings. Prerequisites: senior standing; majors only; 2.5 GPA; consent of Co-op Nursing Advisor; and successful completion of Co-op interview. Corequisites for NUR 405: NUR 401, 411, 415. Corequisites for NUR 406: NUR 402, 412, 416.

NUR 415, 416 Cooperative Education in Nursing (Practicum) 0-2 hrs. each
In-depth practicum in a variety of health care settings, integrated with theory. Prerequisites: senior standing; majors only; 2.5 GPA; consent of Co-op Nursing Advisor; and successful completion of Co-op interview. Corequisites for NUR 415: NUR 401, 405, 411. Corequisites for NUR 416: NUR 402, 406, 412.

The University Experience
A one-semester-hour credit course, EHS 120, is available to all new students in the University. Through discussions and class activities, students are assisted in clarifying personal goals and are familiarized with the University’s procedures, policies, and resources.

EHS 120 The University Experience 1 hr.
Designed to help new students adjust to the University environment. Assists students in gaining an appreciation for higher education, general education, and the value of a Bradley University education.

Professional Teaching Programs
The professional education unit is accredited by the National Council for the Accreditation of Teacher Education (NCATE).

Bradley University has teacher education programs approved by the Illinois State Board of Education for the following categories:

Early Childhood (birth to grade 3)
Elementary (K-9)
The majors in early childhood education and elementary education require a second major in the College of Liberal Arts and Sciences.

Secondary Educations (grades 6-12)
English Language Arts
Family and Consumer Science—Apparel and Textiles
Family and Consumer Science—Living Environments
Family and Consumer Science—Nutrition, Wellness, and Hospitality
Mathematics
Science—Biology
Science—Chemistry
Science—Physics
Social Science—History

Special (K-12)
Art
French
German
Music
Learning Behavior Specialist I—LBS I
Learning Behavior Specialist I—Elementary Education—LBS I-ELED (K-9)
Spanish

Administration
General Administrative

School Service Personnel
Guidance
Graduate Programs

Information on graduate programs is included in the graduate catalog. General inquiries about graduate studies in the College can be made of chairs of degree program departments or the coordinator of graduate studies, the associate dean.

Graduate programs are offered in the following areas:

- Curriculum and Instruction
- Special Education (C & I—LBS-I)
- Leadership in Educational Administration
- Leadership in Human Service Administration
- Human Development Counseling
- Nursing Administration
- Nurse Administered Anesthesia
- Physical Therapy

The Department of Teacher Education offers M.A. degrees in curriculum and instruction and special education—LBSI certification. The curriculum and instruction major may be designed to include early childhood certification, middle-level endorsement, and/or a reading endorsement. The department also offers an advanced certificate program at the graduate level with concentration options in:

- Assessment
- Early Childhood Education
- Educational Technology
- Gifted Education
- Literacy and Reading
- Science Education
- Multidisciplinary Special Education

The Department of Educational Leadership and Human Development offers M.A. degrees in leadership in educational administration, leadership in human service administration, and human development counseling. Individuals not seeking certification may develop a program that fulfills their needs. A graduate-level post-master’s certificate program in school counseling and in educational administration (Type 75) are available. Please consult the Graduate Catalog for further information.

The Department of Nursing offers a Master of Science in Nursing degree (MSN). One area of emphasis is nursing administration. The purpose of this 36-semester-hour graduate program is to educate professional nurses for managerial or administrative positions in adult health settings in hospitals, community health agencies, nursing homes and other agencies. The graduate is prepared for specialized nursing practice as a leader of the interdisciplinary health team, a manager of nursing personnel, a provider of health care, a client advocate, a consultant, a colleague, and a researcher.

Also, Bradley University and Decatur Memorial Hospital offer a 48-semester-hour Master of Science in Nursing degree in nurse administered anesthesia. Graduates of this program are eligible to take the national examination leading to certification as a certified registered nurse anesthetist (CRNA). Students will be scheduled for classes on the Bradley University campus in Peoria and for classes and internship at the Decatur Memorial Hospital campus in Decatur, Illinois.

For more information concerning the Master of Science in Nursing degree program or an individualized program plan, contact the chair, Department of Nursing.

The Department of Physical Therapy and Health Science offers a Doctor of Physical Therapy (D.P.T.) degree program. Please consult the Graduate Catalog for further information.

Although the Department of Family and Consumer Sciences does not offer a graduate program, the department offers 500-level courses.
Department of Educational Leadership and Human Development

Approved by the Illinois State Board of Education (ISBE).
Accredited by the National Council for Accreditation of Teacher Education (NCATE); the Council for Accreditation of Counseling and Related Educational Programs (CACREP); and the Educational Leadership Constituent Council (ELCC).

FACULTY
Professors Russell-Chapin, Rybak (chair), Sherman; Associate Professors Buchko, Davison Avilés, Skaggs, Tripses; Assistant Professors Risen, Scroggs.

The Department of Educational Leadership and Human Development has as its primary mission the preparation of human development counselors and administrators at the graduate level. The counseling programs prepare students for work in a variety of settings such as school counseling and agency counseling settings. The administration graduates will be prepared to assume entry-level administrative positions in schools and human resource service agencies.

The following courses are support courses for undergraduates offered by the department.

Course Descriptions

ELH 200 Introduction to Leadership Studies 3 hrs.
Interdisciplinary introduction to leadership theory and development of student leadership skills and experience. Students study theories of leadership development grounded in varied academic disciplines and apply the theoretical framework to case studies and to live leadership presentations.

ELH 276 Theory and Practice of Career and Life Planning 3 hrs.
Current theory and practice of career and life planning: personal applications. Prerequisite: sophomore standing or permission of instructor.

ELH 300 Advanced Leadership Studies 3 hrs.
Advanced leadership theories and the development of leadership skills will be developed and discussed. Students study theories of leadership development grounded in varied academic disciplines and apply the theoretical framework to case studies and to live leadership presentations. Prerequisites: ELH 200.

ELH 301 Planning Employment Strategy 1 hr.
Prepares students for finding internships and full-time employment after graduation. Develops a systematic approach to long-term career planning including occupational research, organizational research, and practice of job-seeking skills. Pass/Fail. Prerequisite: Junior standing.

ELH 310 Statistical Procedures in Health Sciences 3 hrs.
Principles and procedures for statistical interpretation of data. Study of measures and control tendency, variability, correlation, and introductory predictive and inferential statistics.

ELH 370 Human Relations Development – Techniques 2 hrs.
Basic literature, research findings, and techniques of the lay and professional helper; effect of the lay helper on human relations. Prerequisite: PSY 104 or ETE 225, or consent of instructor.

ELH 375 Human Relations Development Laboratory 1 hr.
Supplemental practice sessions and exercises in skills of ELH 370. To be taken concurrently with ELH 370.

ELH 380 Independent Study 1 hr.
Individual study and investigation through selected readings, discussion, and/or written assignments. Students select subject of study with advisor approval. May be repeated up to a maximum of 3 credit hours. Prerequisites: permission of the ELH chairperson and associate dean or dean of the College of Education & Health Sciences.

ELH 381 Seminar in Leadership 1 hr.
Special topics or current issues related to leadership in various fields. Repeatable under different topics to a maximum of three hours.

ELH 384 Topics in Counseling 1-3 hrs.
Topics of special interest which may vary each time course is offered. Topic stated in current Schedule of Classes. May be repeated under different topics for a maximum of three hours credit.
ELH 440  Interpersonal Relations
and Communications in Education  2 hrs.
Principles and procedures for building effective relationships and communications among teachers, students, parents, school personnel, and others. Emphasis on practical concepts and skill building. Opportunities for extensive practice and evaluation of skills. Simulated experience in staffings, parent conferences, and other important interactions. Prerequisite: senior standing.

ELH 486  Leadership Practicum  3 hrs.
Provides an opportunity to apply leadership concepts discussed in the classroom through involvement, volunteerism, and interaction with leaders from the surrounding community. Prerequisites: ELH 200, ELH 300.

ELH 510  Statistical Procedures  3 hrs.
Principles and procedures for statistical interpretation of data. Study of measures and control tendency, variability, correlation, and introductory predictive and inferential statistics.

ELH 540  Human Growth and Development  3 hrs.
Cognitive and experiential learning in human growth and development. Cognitive learning through reading and research into developmental patterns of humans through the developmental stages: birth; infancy; early childhood; primary, middle, and high school years; adulthood; geriatrics. Experiential activities emphasize personal contact and on-site work with people at different ages and stages of physical and psychological development.

ELH 550  Independent Study
Master's Level  1-6 hrs.
Post Master's  1-9 hrs.
Independent study in a selected area related to educational goals. Prerequisite: Approval of appropriate department chair and the Dean of the College of Education and Health Sciences.

ELH 551  Substance Abuse Counseling  3 hrs.
Basic counseling interventions for prevention, remediation, and treatment of substance abuse.

ELH 580  Financial Leadership in Human Service Administration  3 hrs.
Provides students with a comprehensive overview of financial management related to human service organizations. Topics include various budgeting systems and other financial management tools; service costing and the linking of costs to performance measures; fee setting; and government contracting.

ELH 581  Topics in Human Service Administration  1-3 hrs.
Topics of special interest which may vary each time course is offered. Topic stated in current Schedule of Classes. May be repeated under different topics for a maximum of six hours credit.

ELH 582  Grant Writing in Human Service Administration  2 hrs.
This course is designed to provide an introduction to grant writing and methods for writing grant proposals. Students will learn to critique, research, and write grant proposals. Emphasis will be placed upon organization of a grant writing campaign and preparation of a complete proposal package.

ELH 583  Supervision and Employee Engagement in Human Service Administration  3 hrs.
Focuses on the recruitment, selection, and engagement of employees within the context of mission in human service organizations.

ELH 584  Topics in Human Development Counseling  1-6 hrs.
Topics of special interest which may vary each time course is offered. Topic stated in current Schedule of Classes. May be repeated under different topics for a maximum of six hours credit.

ELH 586  Counseling Diverse Populations  3 hrs.
Value systems in diverse groups; the use of philosophies and models of diversity in establishing an effective, helping relationship.
Department of Teacher Education

Approved by the Illinois State Board of Education (ISBE). Accredited by the National Council for Accreditation of Teacher Education (NCATE), Association for Childhood Education International (ACEI), Council for Exceptional Children (CEC), National Association for the Education of Young Children (NAEYC), National Association of Schools of Art and Design (NASAD), National Association of Schools of Music (NASM), National Council for the Social Studies (NCSS), National Council of Teachers of Mathematics (NCTM), and the National Science Teachers Association (NSTA).

FACULTY  Professors Antola Crowe, Cantu (chair), Finson, Kasambira, Sattler (dean), Wolfe; Associate Professors Britner, Chrosniak, Grant, McMullen, Parodieck; Assistant Professors Arquette, Huffman, Hunzicker, Kuester, Lee, Lukowiak, Nugent.

The preparation of excellent teachers is the primary mission of the department. At Bradley, students are expected to become human resource specialists. The College believes that the productive educator must be an educational leader, advocate, and life-long learner. The smaller class size at Bradley, the caring attitude of the faculty, and the excellent placement record of teacher education graduates make the College an exceptional place from which to launch a teaching career.

As a result of classroom instruction and field experiences in education, it is intended that students will:
1. acquire knowledge and skills to differentiate instruction for students to account for individual differences;
2. gain competence in planning and presenting subject matter and evaluating the learning of students;
3. gain competence in structuring learning experiences compatible with developmental levels of students;
4. acquire the understanding and knowledge to analyze learning processes of students;
5. gain competence in the skills of classroom structure and organization;
6. develop an understanding of their responsibility as professional educators; and
7. develop the desire to continue professional growth and study.

The majors in early childhood education and elementary education require an area of concentration in the College of Liberal Arts and Sciences or Slane College of Communications and Fine Arts. Students must consult with their advisors for details on the area of concentration.

Although the programs in teacher education are designed to meet State of Illinois requirements, graduates will find that they are eligible for certification in a variety of states in addition to Illinois. Currently 36 states have signed the Interstate Certification Agreement with Illinois and will issue a comparable entry-level certificate for elementary, early childhood, high school, or special education graduates. Students must consult with the certification officer for details. All programs are approved by the Illinois State Board of Education, and the unit is accredited by the National Council for Accreditation of Teacher Education (NCATE).

Advancement to Degree Candidacy Required

Students uncertain about a career in education may take introductory education courses. Admission to most upper-level courses requires department advancement to degree candidacy status or special permission of the department chair or the departmental academic review committee. Through the freshman and sophomore years, students may remain in teacher education courses if their overall grade point average is not below a 2.0 or “C.” To be advanced to degree candidacy, however, the grade point averages required are a 2.50 overall and a 2.50 in education, with a grade of 2.0 (C) or better for each education course. In addition, secondary education, K-12, art, music, foreign language, elementary, and early childhood education students must also achieve a 2.50 in the courses which comprise the teaching field(s). Elementary education majors and early childhood education majors must declare a concentration. The courses that make up the concentration will be included in the teaching field GPA. If students are to be considered for advancement and candidacy, they must have earned grades of not less than 2.0 (C) in ENG 101, COM 103 (or equivalents) and a mathematics course that meets University general education requirements. There are additional requirements for advancement to candidacy beyond these minimum grade point averages, including demonstration of appropriate preprofessional behaviors. Students should consult with their advisors regarding these additional requirements. Under extraordinary circumstances, a waiver of the requirement may be requested for the period of one semester only.
Ordinarily, students make application to candidacy in their sophomore year. At the end of the semester, department faculty evaluate students on their academic achievements and professional growth. Continuance in the program is reviewed if at any time after advancement to candidacy a student’s overall grade point average falls below 2.50; education grade point average falls below 2.50; for secondary education, K-12, art, music, foreign language, and elementary education, and early childhood education students, the grade point average in the teaching field(s) falls below 2.50; the student fails to demonstrate appropriate preprofessional behaviors; or other circumstances occur which would make a teacher candidate uncertifiable. Additionally, students must provide a satisfactory criminal background check report and demonstrate acceptable competency on the Dispositions Essay. Students with questions about advancement to degree candidacy and maintenance of candidacy status should see their advisors in the college or the chair of the Department of Teacher Education.

Student Teaching
Student teaching is an important culminating experience for each teacher education program. It is the policy of the department that all student teaching assignments be in or immediately near Peoria, Illinois or in the approved distant placement program (if student meets qualifications). Exceptions may be considered on a case-by-case petition when there are extenuating circumstances. Students with questions about student teaching should see the director of clinical and field experiences or the chair of the Department of Teacher Education. Student teaching and all other field and clinical experiences must be taken for a pass/fail grade.

General Education, Degree, and Certification Requirements for Teacher Education Students
Brief outlines of programs are presented for the benefit of prospective students interested in preparing for the teaching profession. Both University degree requirements and Illinois teacher certification requirements are included. Degree and certification requirements differ. Programs and class schedules are to be planned each semester in consultation with the student’s academic advisor. While a student ordinarily may graduate and be certified under the University catalog requirements in effect at the time the student becomes a teacher education candidate, the Illinois State Teacher Certification Board may mandate changes in standards of approved teacher education programs, requiring students to modify or add to their original degree programs in order to be eligible for certification upon completion of graduation requirements. As in any good program, revisions are being made continually; students should consult the department chair about current program requirements.

Although students are assigned an academic advisor, the ultimate responsibility for meeting the program requirements for graduation is that of the student. Students are responsible for their programs. Students should request a copy of the departmental handbook from their advisor or from the departmental office. A minimum of 124 hours is needed for graduation.

Illinois Certification Tests Required
Each student must pass all applicable certification tests for their major prior to certification. Currently, the Illinois test of Basic Skills must be passed prior to advancement to candidacy for all majors. The applicable Illinois Content Area test must be passed prior to student teaching, and the applicable Assessment of Professional Teaching test must be passed prior to certification. In addition to the required Illinois certification tests, foreign language majors must pass the American Council on the Teaching of Foreign Languages (ACTFL) oral language proficiency test at the advanced low level prior to being certified. As with other requirements, the number and type of tests required are subject to changes implemented by the state legislature or the Illinois State Board of Education at any time prior to certification.

Second Teaching Certificates
Students seeking a second teaching certificate must have their transcript(s) evaluated for the desired certificate by the certification officer. No additional general education courses will be required. The concentration for the Early Childhood and the Elementary Education certificates will be considered met by their previous degree. Students seeking a secondary education certificate who hold a degree in a subject for which Bradley University has a state-approved certification program must take a minimum of 6 semester hours of courses at the 300 level or above in the subject at Bradley University. If they do not hold a degree in the subject, they must complete a major in the subject. The education courses required for each certificate are the same as those listed in this section of the catalog. Students may present evidence to show how they have met requirements for specific education courses. This evidence will be evaluated by several faculty members to make a final determination as to whether it meets the requirements of the course. A minimum of 12-16 semester hours, plus student teaching, must be completed at Bradley University. No Ds in education coursework are allowed. Passage of all applicable state certification tests is required for certification. Address questions to the certification officer.

Transcript Evaluation to Pursue Teacher Certification
All individuals pursuing teacher certification credentials, such as a Second Bachelor’s/Teacher Certification, Certification Only, or Graduate Degree with Teacher Certification (defined below) will be required to pay a transcript analysis and assessment fee of $100. If the individual enrolls in any of Bradley’s Teacher Education programs, the fee will be applied towards tuition. Please direct additional questions to
either the Office of Clinical Experiences and Certification or the Chair of the Department of Teacher Education.

Second Bachelor's/Teacher Certification: Individuals who graduate from Bradley or other universities and who wish to pursue state teacher certification will enroll as a Graduate Student at Large at either the undergraduate or graduate level (if they are pursuing a graduate degree). Certification courses may be offered at the undergraduate or graduate levels of instruction, depending on the program of study selected.

Graduate Students Seeking Degree and Teaching Certification: Individuals who are currently Illinois state certified teachers and who wish to pursue an additional teaching certificate or teaching endorsement will apply to the program of study selected.

Certification Only: Individuals who are currently Illinois state certified teachers and who wish to pursue an additional teaching certificate or teaching endorsement will enroll as a Graduate Student at Large at either the undergraduate or graduate level (if they are pursuing a graduate degree). Certification courses may be offered at the undergraduate or graduate levels of instruction, depending on the program of study selected.

Early Childhood Education Majors (birth through grade three)

The State of Illinois early childhood special education approval is included as part of the early childhood education major. This approval qualifies the graduate to teach in early childhood special education programs for students age three through eight.

Professional Education Program Requirements

Communication Skills
COM 103 The Oral Communication Process ...........................................3
ENG 101 ..............................................................................................3
ENG 300, 301, 304, 305, or 306 ....................................................3

Mathematics
Gen. Ed. Math.................................................................................3

Science
A minimum of 11 hours, including coursework in at least three of these disciplines: biology, chemistry, earth science, or physics. Six hours taken below the 300 level are used to meet the General Education requirement in Science.

**Students must have 6 hours of math and/or science beyond General Education requirements to qualify for a Bachelor of Science degree.

Coursework must include at least one laboratory science.
FS Science ..........................................................................................3-4
Science elective ..................................................................................5-6
Science elective (at Jr.-Sr. level) ........................................................3

Humanities
Fine Arts (ART, MUS, or THE) ..........................................................3
Human Values-Literary (HL) or Philosophical (HP) ..........................3
Non-Western Civilization ..................................................................3

Social Forces
American Government (PLS 105) ..................................................3
Western Civilization (CIV 100) .......................................................3
Social Foundation Elective (SOC 100, PSY 104, ECO 100, IS 100, or PLS 205) .................................................................3

Other
*FCS 203 Health, Safety, & Nutrition ...........................................3

Total  44

Professional Education Requirements

ETE 100 Technology Applications ..................................................1
ETE 107 Conceptualizing Math for Teachers I ..............................3
ETE 115 Schools and Schooling in American Society ..................3
ETE 197 Music in the P-8 Schools ..................................................1
ETE 198 Movement in the P-8 Schools ...........................................1
ETE 199 Art in the P-8 Schools ..........................................................1
ETE 201 The Early Childhood Education Profession:
  Roles, Responsibilities, & Experiences .....................................4
ETE 205 Effective Teaching Strategies ........................................3
ETE 225 Human Development .....................................................4
ETE 233 Early Intervention ............................................................3
ETE 234 Language Development ..................................................3
ETE 260 Children's Literature .......................................................3
ETE 280 Exploring Diversity: Learners, Families, and Communities .................................................................3
ETE 300 Emergent Literacy: Reading and Writing Across the Curriculum .........................................................3
ETE 304 Early Childhood Novice Teaching ..................................4
ETE 342 Guiding Learners and Developing Classroom Communities ..........................................................3
ETE 343 Early Childhood Methods ................................................6
ETE 443 Early Childhood Assessment ...........................................3
ETE 467 History & Philosophy of Early Childhood: An Analysis .................................................................3
ETE 497 Student Teaching/Early Childhood Internship ..................13

Total  68

Area of Concentration Electives ..................................................21

Grand Total  133

*Program requirements taken in addition to General Education requirements
** Program requirement in conjunction with BS degree
Elementary Education Majors  
(Grades K-9)

Professional Education Program Requirements

Communication Skills
COM 103 The Oral Communication Process ............................................. 3  
ENG 101 ........................................................................................................ 3  
ENG 300, 301, 304, 305, or 306 ................................................................. 3

Mathematics
Gen. Ed. Math .......................................................................................... 3

Science
A minimum of 11 hours, including coursework in at least three of these disciplines: biology, chemistry, earth science, or physics. Six hours taken below the 300 level are used to meet the General Education requirement in Science.

***Students must have 6 hours of math and/or science beyond General Education requirements to qualify for a Bachelor of Science degree.

Coursework must include at least on laboratory science.
*FS Science .......................................................................................... 3-4  
*Science elective .................................................................................. 5-6  
*Science elective (at Jr.-Sr. level) .......................................................... 3

Humanities
Fine Arts (ART, MUS, or THE) .................................................................. 3  
**Human Values-Literary (HL) or Philosophical (HP) ................................. 3

Social Forces
American Government (PLS 105) .............................................................. 3  
Western Civilization (CIV 100) ................................................................. 3  
Social Foundation Elective (SOC 100, PSY 104, ECO 100, IS 100, or PLS 205) ... 3

Other
***Health/Physical Development  
(FCS 203; NUR 163, 220, 221, 263, 376) .................................................. 3

Total 44

Professional Education Requirements
ETE 100 Technology Applications ............................................................... 1  
ETE 107 Conceptualizing Math for Teachers I ........................................... 3  
ETE 108 Conceptualizing Math for Teachers II ......................................... 3  
ETE 115 Schools and Schooling in American Society ................................ 3  
ETE 116 Field Experience - Schools and Schooling ................................... 1  
ETE 197 Music in the P-8 Schools .............................................................. 1  
ETE 198 Movement in the P-8 Schools ....................................................... 1  
ETE 205 Effective Teaching Strategies ..................................................... 3  
ETE 225 Human Development ................................................................ 4  
ETE 227 Development of Early Adolescent (optional) ............. (3)  
ETE 228 Strategies for Middle School Instruction  
(optional) ................................................................................................ 3

*One of these must satisfy FS requirement.
**One must satisfy General Education HP or HL requirement.
***Program requirement in conjunction with BS degree
****Program requirements taken in addition to General Education requirements

ETE 260 Children’s Literature ................................................................. 3  
ETE 280 Exploring Diversity: Learners, Families and Communities .......... 3  
ETE 306 Novice Teaching K-8 .................................................................. 4  
ETE 325 Methods of Teaching Reading K-8 ............................................. 3  
ETE 330 Curricular Adaptations for Learners with Exceptionalities ......... 3

ETE 335 Methods of Teaching Social Studies K-8 ................................. 3  
ETE 336 Methods of Teaching Science K-8 .............................................. 3  
ETE 339 Methods of Teaching Mathematics K-8 .................................. 3  
ETE 342 Guiding Learners and Developing  
Classroom Communities ................................................................. 3

ETE 353 Methods of Teaching Language Arts K-8 ............................... 3  
ETE 490 Student Teaching Professional Portfolio ................................. 1  
ETE 498 Student Teaching K-8 ................................................................. 13

Total 66

Area of Concentration Electives ......................................................... 21

Grand Total 131

Special Education Approval
Students may choose to add a special education approval to an early childhood or elementary certificate which will entitle them to teach special education classes in the grades of their certificate. The following courses are needed for this approval.

ETE 327 Characteristics of Emotional and Learning Disabilities ........ 3
ETE 329 Methods for Emotional & Learning Disabilities ..................... 3  
ETE 390 Characteristics of Developmental Disabilities ......................... 3
ETE 391 Methods for Students with Developmental Disabilities .......... 3

ETE 525 Including Learners with Exceptionalities .................................. 3
ETE 543 Assessment and Evaluation Procedures for Learners with Exceptionalities ...................................................... 3

Total 18

Middle School Endorsement
For those elementary or secondary education majors interested in obtaining the State of Illinois middle school endorsement, which would enable them to teach grades 6-9, the following courses are required in addition to the major.

ETE 227 Development of the Early Adolescent ................................. 3
ETE 228 Strategies for Middle School Instruction ................................. 3

Plus an 18-hour subject concentration.

Change of College and Curriculum
Students who enter the University in the AEP program or another major may change their major to any of the teacher education programs only if their overall grade point average is a minimum of 2.50. Students wishing to enter one of the secondary education programs must also have a minimum grade point average of 2.50 in their major and 2.50 in education courses.
Areas of Concentration
Students majoring in elementary education or early childhood education are required to complete 21 additional hours of study to satisfy one of the following areas of concentration. Unless noted, courses taken to meet other program requirements may not be used to complete the Area of Concentration requirement. All concentrations require a minimum of nine hours at the 300 level or above. The General Science concentration requires 12 hours at the 300 level or above.

English
• Foundational English (12 hours selected from these options):
  Creative Writing (ENG 207)
  Surveys of American/British Literature (ENG 233, 235, 237, 239)
  Introduction to Literary Studies (ENG 270)
  Language Study (3 hours)
  Introduction to Language (ENG 311)
  Grammar (ENG 312)
  Adolescent Literature (3 hours)
  Young Adult Literature (ENG 320)
  Writing (3 hours)
• One additional course in creative writing or an advanced writing course beyond General Education Requirements.
• Nine hours of this course of study must be upper division hours in addition to any 300-level course taken to meet the General Education Requirements.

Foreign Language (French, German or Spanish)
• Minimum 21 hours with at least 9 hours at the 300 level or above.
• The appropriate foreign language courses numbered 201, 202, 303, 304
• Nine hours of electives, which may include the appropriate language course numbered 102.

General Science
• A minimum of 12 hours must be at the 300 level or above.
• One 300-level course each beyond the general education requirement in biology, physics, chemistry and earth science.
• The concentration must include the equivalent of at least 3 hours of labs.
• The major program, including general education and other program requirements, must include a minimum of 32 hours of science.
• A minimum of 12 hours of the hours taken in the concentration, beyond the general education requirement, will be from one of the four areas: biology, physics, chemistry or earth science.

Math
• Minimum 21 hours with at least 9 hours at the 300 level or above.
• MTH 111 (may be used for general ed. requirement)
• MTH 190
• Three courses from: MTH 105 (or 207), MTH 109 (or 112), MTH 115 (or 121), MTH 116 (or 122), MTH 120, or a second topic in MTH 190.
• MTH 300 (Topics course rotating among geometry, algebra and number theory, and history of mathematics) repeated for 9 hours in 3 different areas.

General Social Studies
• Minimum 21 hours with at least 9 hours at the 300 level or above.
• One course each from the following areas:
  • Political Science (PLS 202, 205 or 208)
  • US History (HIS 203, 204 or 300)
  • World History
  • Economics (ECO 100 or 313)
  • Sociology (SOC 300, 311, 312, 313, 314 or 315)
• Plus 6 hours of electives in one of these four disciplines: political science, history, sociology or economics.
• The 21 hours required for this concentration are in addition to the General Education requirements of PLS 105 and Non-Western studies (HIS 336 or 337) to meet General Education requirements.

Fine Arts
• Minimum 21 hours with at least 9 hours at the 300 level or above.
• Appreciation (6 hours) two from list beyond Fine Arts General Education requirement: ART 131, MUS 109, THE 121, THE 131
• History (6 hours) one course from two of the following areas:
  • Art (ART 140, 142, 243, 245, 250, 260, 270, 280, 290, 350, 360, 470)
  • Music (MUS 203, 235, 236, 335, 336)
  • Theater (THE 336, 337, 338)
• Six hours of performance or production courses from studio arts, music performance and theater performance and production, including but not limited to THE 115 and THE 125.
• CFA 421 Art and the Creative Imagination (3 hours)
**Secondary Education**

(grades 6-12)

Bradley University has teacher education programs approved by the Illinois State Board of Education for the following secondary education teaching areas:

**Secondary (6-12):**

- English Language Arts
- Family and Consumer Science—Apparel and Textiles
- Family and Consumer Science—Living Environments
- Family and Consumer Science—Nutrition, Wellness, and Hospitality
- Mathematics
- Science—Biology
- Science—Chemistry
- Science—Physics
- Social Science—History and Social Studies

**Requirements for Secondary Teaching Certificates**

Bradley’s requirements for a secondary teaching certificate meet the requirements of the Illinois State Board of Education. These requirements comprise the following:

1. The bachelor’s degree
2. General education
3. Professional education
4. Subject matter preparation (as outlined in the catalog under the respective departments, 32 semester hours minimum).

To satisfy the State of Illinois mandates, which add clinical field experiences prior to student teaching for programs leading to certification, students will be required to enroll in pre-clinical experience courses.

NOTE: The candidate for the secondary teacher’s certificate maintains registration in the college offering the selected subject matter preparation. Usually the student’s academic major will provide the core of the teaching area preparation. However, the State of Illinois may require specific areas of preparation. Students must consult their education advisor. Candidates will have an advisor in both their major area of preparation and in the Department of Teacher Education.

**General Education Requirements**

**Communication Skills**

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>COM 103 The Oral Communication Process</td>
<td>3</td>
</tr>
<tr>
<td>ENG 101</td>
<td>3</td>
</tr>
<tr>
<td>ENG 300, 301, 304, 305, or 306</td>
<td>3</td>
</tr>
</tbody>
</table>

**Mathematics**

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gen. Ed. Math</td>
<td>3</td>
</tr>
<tr>
<td>Math or Science elective (if B.S.)</td>
<td>3</td>
</tr>
</tbody>
</table>

**Science**

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electives</td>
<td>6-8</td>
</tr>
<tr>
<td>Science or math elective (if B.S.)</td>
<td>3-6</td>
</tr>
</tbody>
</table>

(hours counted above)

**Humanities**

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fine Arts (ART, MUS, or THE)</td>
<td>3</td>
</tr>
<tr>
<td>†English (Gen. Ed. literature course)</td>
<td>3</td>
</tr>
<tr>
<td>Nonwestern Civilization</td>
<td>3</td>
</tr>
<tr>
<td>†Elective</td>
<td>3</td>
</tr>
</tbody>
</table>

**Social Forces**

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social Forces Electives</td>
<td>6</td>
</tr>
<tr>
<td>Western Civilization (CIV 100)</td>
<td>3</td>
</tr>
<tr>
<td>Elective</td>
<td>3</td>
</tr>
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</table>

**Other**

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health/Physical Development</td>
<td>3</td>
</tr>
<tr>
<td>(FCS 203; NUR 163, 220, 221, 263, 376)</td>
<td></td>
</tr>
</tbody>
</table>

Total 52-59

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**Secondary Education**

**Professional Education Requirements**

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ETE 100 Technology Applications</td>
<td>1</td>
</tr>
<tr>
<td>ETE 115 Schools and Schooling in American Society</td>
<td>3</td>
</tr>
<tr>
<td>ETE 116 Field Experience: Schools and Schooling in American Society</td>
<td>1</td>
</tr>
<tr>
<td>ETE 225 Human Development</td>
<td>4</td>
</tr>
<tr>
<td>ETE 227 Development of the Early Adolescent (optional)</td>
<td>3</td>
</tr>
<tr>
<td>ETE 228 Strategies for Middle School Instruction (optional)</td>
<td>3</td>
</tr>
<tr>
<td>ETE 280 Exploring Diversity: Learners, Families, and Communities</td>
<td>3</td>
</tr>
<tr>
<td>ETE 342 Guiding Learners and Developing Classroom Communities</td>
<td>3</td>
</tr>
<tr>
<td>ETE 360 Teaching Reading in the Content Field</td>
<td>3</td>
</tr>
<tr>
<td>ETE 370 General Secondary Methods I</td>
<td>3</td>
</tr>
<tr>
<td>ETE 371 General Secondary Methods II</td>
<td>3</td>
</tr>
</tbody>
</table>

**Special Methods**

Choose course appropriate to student’s major.*

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>ETE 373 Methods of Teaching Secondary Mathematics</td>
<td>3</td>
</tr>
<tr>
<td>ETE 374 Methods of Teaching Secondary Science</td>
<td>2</td>
</tr>
<tr>
<td>ETE 375 Methods of Teaching Secondary Social Studies</td>
<td>2</td>
</tr>
<tr>
<td>ETE 376 Methods of Teaching Secondary Art</td>
<td>2</td>
</tr>
<tr>
<td>ETE 377 Methods of Teaching Secondary Foreign Language</td>
<td>2</td>
</tr>
<tr>
<td>ETE 378 Methods of Teaching Family &amp; Consumer Sciences</td>
<td>2</td>
</tr>
<tr>
<td>ETE 379 Novice Teaching in Secondary School</td>
<td>2</td>
</tr>
<tr>
<td>ETE 490 Student Teaching Professional Portfolio</td>
<td>1</td>
</tr>
<tr>
<td>ETE 499 Student Teaching in the Secondary School</td>
<td>10 or 13</td>
</tr>
</tbody>
</table>

Total 39-49

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Major (minimum)</td>
<td>32</td>
</tr>
<tr>
<td>Additional Electives</td>
<td>8</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Total</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Grand Total</td>
<td>124</td>
</tr>
</tbody>
</table>

†One must meet Gen. Ed. HP requirement and one must meet HL requirement

*English majors have methods courses offered by the English Department.
Special K-12

Art
Foreign Languages (French, German, or Spanish)
Music

General Education Requirements

Communication Skills
COM 103 The Oral Communication Process........3
ENG 101 .................................................................3
ENG 300, 301, 304, 305, or 306 .........................3

Mathematics
Gen. Ed. Math .........................................................3
Math or Science elective (if B.S.) .........................3

Science
Electives ..................................................................6-8
Science or math elective (if B.S.) (3-6) [hours counted above]

Humanities
Fine Arts (ART, MUS, or THE) .................................3
**English (Gen. Ed. literature course) ....................3
Nonwestern Civilization ........................................3
**Elective .................................................................3

Social Forces
Social Forces Electives ............................................6
Western Civilization (CIV 100) ..............................3
Elective ...................................................................3

Other
Health/Physical Development ...............................3
(FCS 203; NUR 163, 220, 221, 263, 376) __

Total 52-54

Art Education
(K-12)
The candidate for the art teacher’s certificate maintains registration in the Slane College of Communications & Fine Arts. The Department of Art will provide the core of the teaching area preparation. Candidates will have an advisor in both the Department of Art and in the Department of Teacher Education. Candidates should contact their advisors for specific course requirements.

General Education Requirements

Coursework as required for the B.A. or B.S. degree, plus a health course.

Total General Education 46

Professional Education Requirements

ETE 100 Technology Applications .........................1
ETE 115 Schools and Schooling in American Society ....3
ETE 116 Field Experience: Schools and Schooling in American Society ................3
ETE 205 Effective Teaching Strategies ....................3
ETE 225 Human Development ................................4

ETE 280 Exploring Diversity: Learners, Families, and Communities ..................3
ETE 342 Guiding Learners and Developing
Classroom Communities .........................................3
ETE 360 Teaching Reading in the Content Field........3
ETE 371 General Secondary Methods II ..................3
ETE 380 Novice Teaching in a K-12 School ............2
ETE 386 Methods of Teaching K-12 Art ..................3
ETE 490 Student Teaching Professional Portfolio ....1
ETE 499 Student Teaching in Secondary School ......10-13

Total 40-43

Other
For specific coursework in Art, Please see the Art Department / Art Education Major section of this catalog.

Foreign Languages Education
(K-12 teaching of French, German, or Spanish)

General Education Requirements

Coursework as required for the B.A. degree plus a health course.

Total General Education 44-47

Professional Education Requirements

ETE 100 Technology Applications .........................1
ETE 115 Schools and Schooling in American Society ....3
ETE 116 Field Experience: Schools and Schooling in American Society ................3
ETE 205 Effective Teaching Strategies ....................3
ETE 225 Human Development ................................4
ETE 280 Exploring Diversity: Learners, Families, and Communities ..................3
ETE 342 Guiding Learners and Developing
Classroom Communities .........................................3
ETE 360 Teaching Reading in the Content Field........3
ETE 371 General Secondary Methods II ..................3
ETE 380 Novice Teaching in a K-12 School ............2
ETE 387 Methods of Teaching K-12 Foreign Language .....3
ETE 490 Student Teaching Professional Portfolio ....1
ETE 499 Student Teaching in Secondary School ......10-13

Total 40-43

Other:
For specific coursework in French, German, or Spanish, please see the Foreign Language Department.

ACTFL Test Required for Foreign Language Majors

In addition to the required Illinois certification tests, foreign language majors must pass the American Council on the Teaching of Foreign Languages (ACTFL) oral language proficiency test at the advanced low level prior to being certified.
Music Education
(K-12)

The candidate for the music teacher’s certificate maintains registration in the Slane College of Communications & Fine Arts. The Department of Music will provide the core of the teaching area preparation (see Department of Music). Candidates will have an advisor in both the Department of Music and in the Department of Teacher Education. Students should consult their music advisors for major requirements.

General Education Requirements
Coursework as required for the B.M.E. (Bachelor of Music Education) degree, plus a health course.

Total General Education 46

Professional Education Requirements
ETE 100 Technology Applications ..............................................1
ETE 115 Schools and Schooling in American Society ..............3
ETE 116 Field Experience: Schools and Schooling ...............1
ETE 225 Human Development ....................................................4
ETE 280 Exploring Diversity: Learners, Families and Communities ...................................................3
ETE 342 Guiding Learners and Developing Classroom Communities ....................................................3
ETE 351 Elementary School Music for Music Majors .............3
ETE 352 Secondary School Music ...............................................3
ETE 360 Teaching Reading in the Content Field ....................3
ETE 381 Field Experience in Elementary Music Teaching ...................................................1
ETE 382 Field Experience in Secondary Music Teaching ...................................................1
ETE 490 Student Teaching Professional Portfolio ..................1
ETE 498 Student Teaching K-8 .....................................................7
ETE 499 Student Teaching in the Secondary School ..............7

Total Professional Education 41

Special Education Approval
Students may choose to add a special education approval to a secondary or special K-12 certificate, which will entitle them to teach special education classes in the grades of their certificate. The following courses are needed for this approval:

ETE 327 Characteristics of Emotional and Learning Disabilities ........................................................................3
ETE 329 Methods for Emotional & Learning Disabilities ..........3
ETE 390 Characteristics of Developmental Disabilities ..........3
ETE 391 Methods for Students with Developmental Disabilities ........................................................................3
ETE 525 Including Learners with Exceptionalities .................3
ETE 543 Assessment and Evaluation Procedures for Learners with Exceptionalities ........................................3

Total 18

Special Education
(ages 3-21)

Students in special education have the option of majoring in the Learning Behavior Specialist I (LBS I) program or the Learning Behavior Specialist I - Elementary Education (LBS I - ELED) program.

Upon graduation the special education major is eligible for State of Illinois teacher certification as a special education teacher (Ages 3-21) with an endorsement in LBS I. Students majoring in special education and elementary education will be eligible for State of Illinois teacher certification as a special and elementary educator.

It is the department’s philosophy that all children have the potential for successful learning experiences. The special education programs at Bradley University are designed to provide students with the following competencies:

1. To act as an advocate for exceptional children and youth and programs designed to educate them.
2. To understand the philosophical, historical, and legal foundations of special education.
3. To comprehend how disabilities impact the cognitive, physical, emotional, social, and communication development of an individual and provide opportunities that support the intellectual, social, and personal development of all students (ages 3-21).
4. To know the educational assessment process and use various assessment strategies to support the continuous development of all students, ages 3-21.
5. To create instructional opportunities that are adapted to diverse learners and learning styles and are based on knowledge of the discipline, student, community, and curriculum goals.
6. To motivate individuals and groups to create a learning environment that encourages positive social interaction, active engagement in learning, and self-motivation.
7. To understand the central concepts and methods of inquiry; uses a variety of instructional strategies to encourage students’ development of critical thinking, problem solving, and performance skills; and creates learning experiences that make content meaningful to all students (ages 3-21).
8. To use knowledge of effective written, verbal, and visual communication techniques to foster active inquiry, collaboration, and supportive interaction among professionals, parents, paraeducators, and students.
9. To conceive teaching as a profession, maintain standards of professional conduct, and provide leadership to improve students’ learning and well-being.
10. To become reflective practitioners who continually evaluate how choices and actions affect students, parents, and other professionals in the learning community and actively seek opportunities to grow professionally.
Communication Skills
COM 103 The Oral Communication Process ........................................ 3
ENG 101 English Composition ................................................................. 3
ENG 300, 301, 304, 305, or 306 ............................................................... 3
Mathematics
Gen. Ed. Math ......................................................................................... 3
Science
Biology .................................................................................................. 3-4
Physical Science ......................................................................................... 3-4
Science lab course (if needed) ................................................................. 1
300-level Science ...................................................................................... 3
Science or math elective ............................................................................ 3
Humanities
Fine Arts (ART, MUS, or THE) ............................................................... 3
English (may use Gen. Ed. literature course) ............................................. 3
Non-Western Civilization ......................................................................... 3
Social Forces
American Government (PLS 105) ......................................................... 3
Western Civilization (CIV 100) ............................................................... 3
Other
Health/Physical Development ............................................................... 3
(FCS 203; NUR 163, 220, 221, 263, 376) .................................................. 3
Total ......................................................................................................... 46

Professional Education Requirements

Professional Education Component
ETE 100 Technology Applications .......................................................... 1
ETE 107 Mathematics for Teachers .......................................................... 3
ETE 115 Schools and Schooling in American Society .................................. 3
ETE 116 Field Experience: Schools & Schooling in American Society ......... 1
ETE 205 Effective Teaching Strategies ....................................................... 3
ETE 225 Human Development .................................................................. 4
ETE 280 Exploring Diversity: Learners, Families, and Communities ............ 3
ETE 325 Methods of Teaching Reading K-8 .............................................. 3
ETE 335 Methods of Teaching Social Studies K-8 ................................... 3
ETE 336 Methods of Teaching Science K-8 .............................................. 3
ETE 339 Methods of Teaching Mathematics K-8 .................................... 3
ETE 353 Methods of Teaching Language Arts K-8 .................................. 3
Total ......................................................................................................... 33

Special Education
ETE 234 Language Development ............................................................ 3
ETE 235 American Sign Language I (optional) ......................................... 3
ETE 401 Secondary Special Education ..................................................... 3
ETE 525 Including Learners with Exceptionalities ..................................... 3
ETE 543 Assessment and Evaluation Procedures for Learners with Exceptionalities ......................................................... 3
Total ......................................................................................................... 15

Learning Behavior Specialist I
ETE 327 Characteristics of Emotional and Learning Disabilities ................. 3
ETE 329 Methods for Emotional & Learning Disabilities ............................ 3
ETE 330 Curriculum Adaptations for Learners with Exceptionalities .......... 3
ETE 331 Assistive Technology .................................................................. 3
ETE 390 Characteristics of Developmental Disabilities ........................... 3
ETE 391 Methods for Students with Developmental Disabilities ............... 3
ETE 392 Novice Teaching for LBS I ......................................................... 4
ETE 490 Student Teaching Professional Portfolio .................................... 1
ETE 496 Student Teaching for LBS I K-8 ................................................. 13
Total ......................................................................................................... 36
Total for LBS I major .............................................................................. 80

Grand total for LBS I - ELED major ......................................................... 130

Learning Behavior Specialist I - Elementary Education (LBS I - ELED) Option

Students can choose to take either Humanities-Lit (HL) or Humanities-Phil (HP)
Science Elective .......................................................................................... 3
ETE 260 Children's Literature .................................................................... 3
ETE 392 or ETE 306 Novice Teaching for LBS I or PreK-8 ..................... 4

Special Requirement: For students who choose ETE 306
Novice Teaching PreK-8, field experiences in ETE 116 and ETE 225 must be completed in special education settings.
For students who choose ETE 392 Novice Teaching for LBS I, field experiences in ETE 116 and ETE 225 must be completed in elementary education settings.
ETE 490 Student Teaching Professional Portfolio .................................... 1
ETE 496 Student Teaching for LBS I & PreK-8 ....................................... 13
Total ......................................................................................................... 14
Total for LBS I - ELED major ................................................................. 134

Early Childhood Special Education Approval
For those special education students interested in obtaining the State of Illinois early childhood special education approval, which would enable the graduate to teach in preschool handicapped programs with children up to six years of age, the following courses are required in addition to the major. (These course are built into the Early Childhood Education program, so these students will be entitled to this approval upon graduation.)
ETE 233 Early Intervention ....................................................................... 3
ETE 443 Early Childhood Assessment ...................................................... 3
Total ......................................................................................................... 6
Course Descriptions

ETE 100  Technology Applications  1 hr.
Application of technology concepts and skills to human service professionals. Database construction; linear and nonlinear multimedia projects. Using graphics, text, sound, animation, and other media resources. Prerequisite: not open to juniors or seniors.

ETE 107  Conceptualizing Math for Teachers I  3 hrs.
Development of a deep understanding of concepts, relationships, and algorithms in various areas of mathematics examined. Topics include set theory, variables, patterns and algebraic relationships, equations and systems of equations, graphing; real numbers and operations, properties of number systems, ratios and proportions, percents; measurement systems, measurement relationships. Focus is on problem solving, analysis, representation of concepts, and communicating understanding and reasoning of the mathematical concepts studied.

ETE 108  Conceptualizing Math for Teachers II  3 hrs.
Development of a deep understanding of concepts, relationships, and algorithms in various areas of mathematics examined. Topics include data presentation, computation, and meaning of descriptive measurements; basic combinatorics, probability concepts, probability distributions, expectations; linear, quadratic, exponential, and other functions, geometric constructions, 2-D and 3-D shapes, spatial relationships, geometric reasoning and proof. Focus is on problem solving, analysis, representation of concepts, and communicating understanding and reasoning of the mathematical concepts studied. Prerequisite: ETE 107.

ETE 115  Schools & Schooling in American Society 3 hrs. (Gen. Ed. SF)
American system of schools and schooling. How the system evolves from and impinges upon society, within historic and theoretical constructs. How the system interrelates with other social institutions and forces.

ETE 116  Field Experience – Schools and Schooling in American Society  1 hr.
25 hours of directed observations in the school setting. Weekly seminar. Pass/Fail. Prerequisite: ETE 115 or concurrent enrollment.

ETE 197  Music in the P-8 Schools  1 hr.
Content and pedagogy for music in grades P-8 to meet the needs of diverse learners. Introduction to including music in the regular classroom using traditional methods and newer technologies.

ETE 198  Movement in the P-8 Schools  1 hr.
Content and pedagogy for movement in grades P-8 to meet the needs of diverse learners. Introduction to including movement in the regular classroom teaching of the curriculum and to promote physical well-being. Prerequisite: not open to juniors or seniors.

ETE 199  Art in the P-8 Schools  1 hr.
Content and pedagogy for art in grades P-8 to meet the needs of diverse learners. Introduction to including art in the regular classroom using traditional methods and newer technologies.

ETE 201 The Early Childhood Profession: Roles, Responsibilities, and Experiences  4 hrs.
Meeting the care and education needs of children from birth through age 8. Career opportunities, roles, and responsibilities. Participants complete a 25-hour clinical experience in a variety of settings, which includes child observation techniques and documentation.

ETE 205  Effective Teaching Strategies  3 hrs.
Lesson and unit planning; models of teaching instructional management, including grouping and assessment; teachers' roles in leadership, decision making, and change processes. Prerequisite: ETE 115, ETE 225 or concurrent enrollment.

ETE 220  Field Experiences  1-4 hrs.
25 clock hours of directed observations per semester hour. These field experiences may be used to meet the requirements for students majoring in early childhood, elementary, special or secondary education. Pass/Fail. May be repeated for a maximum of 4 hours. Prerequisites: Consent of instructor and department chair.

ETE 222  Gifted Education in American Schools: Foundations and Future  3 hrs.
Philosophy, concepts and testing procedures in gifted education. Students will investigate legal issues and programmatic evaluation for gifted education programs. Additionally, materials, curriculum design, and classroom methods will be introduced. The gifted learner's cognitive, socio-emotional, and talent development will be explored.

ETE 223  Gifted Education Strategies and Practicum  3 hrs.
Field experience in gifted education grades K-9; 20 clock hours in Bradley University Gifted and Talented Summer Institute. In addition 16 hours of in-class instruction of materials and strategies unique to gifted learners will be required. Prerequisite: ETE 222.

ETE 225  Human Development  4 hrs.
Development and growth of the whole individual from conception to adulthood, with emphasis on young children. Physiology of learning and the interactive nature of the teaching/learning process. Developmental and cultural appropriateness in meeting individual needs, with an emphasis on acknowledging and accommodating exceptionality and diversity. Cultural, ethnic, socioeconomic, individual, and social contexts of development. Parent-child interaction. Socio-cultural issues affecting development (e.g., divorce, maltreatment, drug abuse). In-depth study of an individual learner, that includes a 25-hour clinical experience.
ETE 227 Development of the Early Adolescent 3 hrs.
Physiological, psychological, and social/emotional characteristics and needs of the early adolescent (ages 11-15). Implications for the middle school teacher. Issues-based, problem-solving format. Prerequisite: ETE 225 or consent of instructor. For Elementary Education Majors: ETE 205, ETE 225 or consent of instructor.

ETE 228 Strategies for Middle School Instruction 3 hrs.
Philosophy, concepts, and procedure related to organizational structure, curriculum, teaching strategies, and assessment in the middle school. Prerequisite: ETE 225 or consent of instructor. For Elementary Education majors: ETE 205, ETE 225 or consent of instructor.

ETE 233 Early Intervention 3 hrs.
Providing developmentally and culturally appropriate activities to infants and young children with special needs. History and evolution of early intervention services, teaming, collaboration, service coordination, development of Individualized Family Service Plans and Individualized Educational Plans, adaptation of curriculum, instructional models that promote interaction and independence, inclusionary programs, transitional planning. Prerequisites: ETE 225

ETE 234 Language Development 3 hrs.
Language acquisition theory and processes, stages of language development, verbal and non-verbal communication. Emphasis on language differences and diversity, including minority groups, language disorders, and English as a second language. Planning opportunities supporting language use in its various forms to enrich further development. Prerequisites: ETE 225

ETE 235 Methods of Teaching English Language Learners 3 hrs.
Addresses language development and methods for teaching English Language Learners (ELL). Topics include theories of second language acquisition as well as a variety of instructional strategies in the language arts and other content areas. Emphasis will be placed on the social and cultural needs of the ELL and the examination of pre-service teachers' own culture and its impact on their practice. Prerequisites: ETE 225; ETE 205 or concurrent enrollment.

ETE 245 American Sign Language I 3 hrs.
General introduction to sign language of the deaf; information regarding the culture of the deaf. Finger spelling and signing skills, which enable signing at a conversational level both receptively (seeing and understanding) and expressively (signing). Available to students from any major throughout the university.

ETE 246 American Sign Language II 3 hrs.
Provides an intermediate level of American Sign Language skills; further information regarding the culture of the deaf. Students will refine finger spelling and signing skills with an emphasis on the comprehension and expression of real-life events. Available to students from any major throughout the university. Prerequisite: ETE 245 or equivalent.

ETE 250 Independent Study 1-3 hrs.
Student selects subject of study with consent of instructor. May be repeated for a maximum of 6 hours credit. Prerequisites: consent of department chair and dean of College of Education & Health Sciences.

ETE 260 Children's Literature 3 hrs.
Types, genres, authors, and illustrators of books for children from birth through middle school. Emphasis on literature response activities; planning and assessing a literature-based curriculum. Analysis of current trends, issues, and the impact of children's literature.

ETE 280 Exploring Diversity: Learners, Families, and Communities 3 hrs.
(Gener. Ed. CD)
The socialization and enculturation of learners in the context of their families, communities, and cultures. Awareness, acceptance, and appreciation of diversity, whether resulting from cultural or ability differences. Emphasis on the teacher's role in involving, educating, and communicating with parents as partners in the educational process. Professional advocacy that supports an inclusionary, multicultural, antiracist, democratic, non-sexist, and global curriculum.

ETE 300 Emergent Literacy: Reading and Writing Across the Curriculum 3 hrs.
Processes, themes, and practices that support the development of reading, writing, speaking, listening, and thinking in children from birth through age 8. A continuum of instructional practices, including contextualized application of phonemic, graphemic, morphemic, and syntactical concepts, that facilitate the emergence of literacy. Prerequisite: advancement to degree candidacy in the department.

ETE 304 Early Childhood Novice Teaching 4 hrs.
Supervised teaching experience in preprimary and primary settings. Planning and implementing instruction and creating teaching materials for an integrated unit. Developing a plan for home-school interaction. Weekly seminar. Pass/Fail. Prerequisites: Advancement to degree candidacy in the department. Corequisites: ETE 343

ETE 306 Novice Teaching K-8 4 hrs.
The professional semester field experience: planning and teaching lessons. Weekly seminar. Pass/Fail. Prerequisite: advancement to degree candidacy in the department and at least one course from: ETE 325, 335, 336, 339, 353.

ETE 320 Practicum in Education 1-4 hrs.
Supervised field experience that includes planning and teaching lessons in appropriate school settings. Pass/Fail. May be repeated for a maximum of 6 hours. Prerequisites: Advancement to degree candidacy and consent of instructor and department chair.
ETE 325 Methods of Teaching Reading K-8  
Emphasis on emergent literacy, word-attack strategies, comprehension skills, and evaluation. Prerequisite: advancement to degree candidacy in the department.

ETE 327 Characteristics of Emotional and Learning Disabilities  
Characteristics of learners with emotional and learning disabilities. Theorists and models used in the field of emotional and learning disabilities. Current literature: DSM IV TR, identification and placement, educational programming, and available resources for learners with mild to moderate emotional and learning disabilities. Current legislation and new perspectives on mental well-being of learners. Prerequisites: ETE 205 or concurrent enrollment; ETE 225; PSY 104 or equivalent.

ETE 329 Methods for Students with Emotional and Learning Disabilities  
Methods and techniques for use with children and adolescents with emotional and learning disabilities in elementary, secondary and special education classrooms (ages 3-21). Helping process, communication skills, and interpersonal skills are covered. Emphasis on analysis of classroom situations and application of theories and educational techniques to create positive learning environments for learners with mild to moderate emotional and learning disabilities. To ensure that students will become educational leaders and informed decision makers, teaching strategies in basic skills, metacognition, study skills, and social skills will be addressed. Prerequisites: ETE 327; advancement to degree candidacy in the department.

ETE 330 Curricular Adaptations for Learners with Exceptionalities  
The purpose of this course is to facilitate student knowledge and performance as they relate to developing and adapting curriculum materials for learners with various exceptionalities. These exceptionalities include, but are not limited to, issues associated with learning disabilities, developmental disabilities, emotional/behavioral disorders, physical and health impairments, traumatic brain injury, and cultural barriers. Prerequisites: ETE 205 or concurrent enrollment; ETE 225.

ETE 331 Assistive Technology for Individuals with Special Needs  
This course addresses the assistive technology evaluation, selection, and application process for individuals with disabilities in school, the workplace, and the community. Emphasis is placed on assessment of the individual, environment, and tasks required of the individual prior to evaluation of technologies and adaptations that enable the individual to function as fully as possible in daily life. Prerequisites: ETE 205 or concurrent enrollment; ETE 225.

ETE 335 Methods of Teaching Social Studies K-8  
Content and methods of teaching social studies in the elementary grades. Prerequisite: advancement to degree candidacy in the department.

ETE 336 Methods of Teaching Science K-8  
How to plan, implement, and evaluate a science program for elementary school children. Emphasis on the nature of school science, students’ misconceptions, and meaningful science activities. Prerequisite: advancement to degree candidacy in the department.

ETE 339 Methods of Teaching Mathematics K-8  
Emphasis on teaching strategies, materials, and organizational plans related to the K-8 mathematics curriculum. Assignments for elementary education majors with math concentration will be in the middle grades (6-8). Elementary education majors with math concentration will be expected to use appropriate strategies for middle school students in their projects. Focus on active involvement of the students in the learning process and strategies to meet the various needs of learners of mathematics. Prerequisite: advancement to degree candidacy in the department. For elementary education majors: ETE 108 or concurrent enrollment.

ETE 342 Guiding Learners and Developing Classroom Communities  
Facilitation of a learner-centered curriculum that features developmentally and culturally appropriate practices that nourish learners’ natural curiosity, develop problem-solving skills, acknowledge and accommodate exceptionality and diversity, and support a sense of community. Theories of guidance examined relative to establishing a caring and trusting environment where learners feel valued and respected and can be productive. Prerequisite: advancement to degree candidacy in the department.

ETE 343 Early Childhood Methods  
Strategies for teaching language arts, science, mathematics, social studies, art, music, and movement in preprimary and primary grades within an integrated, thematic curriculum. Emphasis on the role of play, learning environments, creative and critical thinking, problem solving, acknowledgment and accommodations of exceptionality and diversity, transitions, horizontal relevance, and developmentally and culturally appropriate practices. Prerequisite: advancement to degree candidacy in the department. Corequisites: ETE 304.

ETE 350 Topics in Teacher Education  
Topics of special interest which may vary each time course is offered. Topic stated in current Schedule of Classes. May be repeated under different topics for a maximum of 6 hours credit. Prerequisites: consent of instructor and department chair.

ETE 351 Elementary School Music for Music Majors  
Methods and materials appropriate for teaching music in elementary schools. Observations in the public schools; planning the elementary music curriculum; experience teaching lessons in all areas of classroom music. Prerequisite: advancement to degree candidacy in the department. Corequisite: ETE 381.
ETE 352 Secondary School Music 3 hrs.
Methods of teaching music in the secondary schools; administration of a music department. Instrumental and chorale programs, general music, and high school music theory. Emphasis on development of a philosophy of music education. Prerequisite: advancement to degree candidacy in the department. Corequisite: ETE 382.

ETE 353 Methods of Teaching Language Arts K-8 3 hrs.
Content and methods of teaching language arts in the elementary grades. Emphasis on curriculum integration and interdisciplinary teaching. Prerequisite: advancement to degree candidacy in the department.

ETE 360 Teaching Reading in the Content Field 3 hrs.
Teaching strategies to address diverse learning needs that enhance understanding in the content field. Prerequisite: advancement to degree candidacy.

ETE 370 General Secondary Methods I 3 hrs.
Introduction to the secondary teaching profession. Historical, philosophical, and curricular variants unique to the secondary school. Prerequisite: ETE 115; ETE 225, or concurrent enrollment.

ETE 371 General Secondary Methods II 3 hrs.
Instructional planning and assessment. Writing instructional objectives, constructing teacher-made assessments, designing authentic assessments, analyzing assessment data, interpreting standardized test scores, and integrating technology into the curriculum. Emphasis on learning environments, creative and critical thinking, problem solving, acknowledgment and accommodations of exceptionality and diversity, and developmentally and culturally appropriate practices. Prerequisite: advancement to degree candidacy in the department.

ETE 372 Methods of Teaching Secondary Language Arts 2 hrs.
Content and pedagogy of secondary-school language arts. Integrated language arts instruction including literature-based instruction, oral communication, reading, writing, and performing arts. Emphasis on instructional planning, assessment of student performance, learning environments, creative and critical thinking, problem solving, acknowledgment and accommodations of exceptionality and diversity, and developmentally and culturally appropriate practices. Prerequisites: advancement to degree candidacy in the department; ETE 371. Corequisite: ETE 379.

ETE 373 Methods of Teaching Secondary Mathematics 3 hrs.
Content and pedagogy of secondary-school mathematics. Designing and implementing mathematics instruction and curriculum using a variety of approaches. Emphasis on instructional planning, assessment of student performance, learning environments, creative and critical thinking, problem solving, acknowledgment and accommodations of exceptionality and diversity, and developmentally and culturally appropriate practices. Prerequisites: advancement to degree candidacy in the department; ETE 371. Corequisite: ETE 379.

ETE 374 Methods of Teaching Secondary Science 2 hrs.
Content and pedagogy of secondary-school science. Designing and implementing science instruction and curriculum using a variety of approaches including project-based science. Emphasis on instructional planning, assessment of student performance, learning environments, creative and critical thinking, problem solving, acknowledgment and accommodations of exceptionality and diversity, and developmentally and culturally appropriate practices. Prerequisites: advancement to degree candidacy in the department; ETE 371. Corequisite: ETE 379.

ETE 375 Methods of Teaching Secondary Social Studies 2 hrs.
Content and pedagogy of secondary-school social studies, including family and consumer sciences, history, psychology, and general social science. Designing and implementing social studies instruction and curriculum using a variety of approaches. Emphasis on instructional planning, assessment of student performance, motivational strategies, microteaching, reading diagnostic techniques, learning environments, creative and critical thinking, problem solving, acknowledgment and accommodations of exceptionality and diversity, and developmentally and culturally appropriate practices. Prerequisites: advancement to degree candidacy in the department; ETE 371. Corequisite: ETE 379.

ETE 376 Methods of Teaching Secondary and Consumer Sciences 2 hrs.
Content and pedagogy of secondary-school family and consumer sciences. Designing and implementing instruction and curriculum using a variety of approaches including project-based family and consumer sciences. Emphasis on instructional planning, assessment of student performance, learning environments, creative and critical thinking, problem solving, acknowledgment and accommodations of exceptionality and diversity, and developmentally and culturally appropriate practices. Prerequisites: Advancement to degree candidacy in the department; ETE 371. Corequisite: ETE 379.

ETE 377 Methods of Teaching Secondary and Consumer Sciences 2 hrs.
Supervised teaching experience in secondary-school or middle-school settings. Planning and implementing instruction in the student's teaching area. Pass/Fail. Prerequisites: advancement to degree candidacy in the department; ETE 370, 371; ETE 342 or concurrent enrollment. Corequisite: content-specific methods course appropriate to the student's teaching area (ETE 372, ETE 373, ETE 374, ETE 375, ETE 378).

ETE 378 Methods of Teaching Secondary and Consumer Sciences 2 hrs.
Supervised teaching experience in secondary-school or middle-school settings. Planning and implementing instruction in the student's teaching area. Pass/Fail. Prerequisites: advancement to degree candidacy in the department; ETE 370, 371; ETE 342 or concurrent enrollment. Corequisite: content-specific methods course appropriate to the student's teaching area (ETE 372, ETE 373, ETE 374, ETE 375, ETE 378).
ETE 380 Novice Teaching in a K-12 School 2 hrs.
Supervised teaching experience in K-12 classroom in the appropriate discipline. Planning and implementing instruction in the student's teaching area. Addresses the various issues that arise in teaching multiple levels and wide range of levels of students. Pass/Fail. Prerequisites: advancement to degree candidacy in the department; ETE 371. Corequisite: ETE 386 or 387.

ETE 381 Field Experience in Elementary Music Teaching 1 hr.
25-clock-hour field experience of observation and participation in an elementary school classroom. Application of material from ETE 351. Pass/Fail. Prerequisite: advancement to degree candidacy in the department. Corequisite: ETE 351.

ETE 382 Field Experience in Secondary Music Teaching 1 hr.

ETE 386 Methods of Teaching K-12 Art 3 hrs.
Content and methods for teaching art K-12. Designing and implementing art instruction and curriculum using a variety of approaches. Emphasis on sequential enhancement of media and techniques in relation to the developmental needs of different levels of students, instructional planning, assessment of student performance, learning environments, creative and critical thinking, problem solving, acknowledgment and accommodations of exceptionality and diversity, and culturally appropriate practices, aligned with the state and national goals. Prerequisites: advancement to degree candidacy in the department; ETE 371. Corequisite: ETE 380.

ETE 387 Methods of Teaching K-12 Foreign Language 3 hrs.
Content and pedagogy of K-12 foreign language. Designing and implementing foreign language instruction and curriculum using a variety of approaches. Emphasis on instructional planning, assessment of student performance, learning environments, creative and critical thinking, problem solving, acknowledgment and accommodation of exceptionality and diversity, and developmentally and culturally appropriate practice. Prerequisites: advancement to degree candidacy in the department; ETE 371. Corequisite: ETE 380.

ETE 390 Characteristics of Developmental Disabilities 3 hrs.
Mental retardation and developmental disabilities, autism, traumatic brain injury, orthopedic, or other health impairments from educational, medical, and sociological perspectives. Continuum from mild to severe/profound; impact of degree of disability on all aspects of learning and life adjustment. Prerequisites: ETE 205 or concurrent enrollment; ETE 225.

ETE 391 Methods for Students with Developmental Disabilities 3 hrs.
Strategies for planning and teaching groups or individual students with exceptionalities (i.e. mental retardation, autism, traumatic brain injury, orthopedic, or other health impairments). Emphasis on development of Individualized Education Programs, assessment, curriculum in the psycho-motor, cognitive, and affective domains, transition planning, and adaptations for inclusion. Prerequisites: advancement to degree candidacy in the department; ETE 390.

ETE 392 Novice Teaching for LBS I 4 hrs.
Supervised teaching experience in special education setting. Majors required to spend 5 days per week for 5 weeks in a Learning Behavior Specialist I classroom. Pass/Fail. Prerequisite: Advancement to degree candidacy in the department. One of ETE 329, 391, or 401 or concurrent enrollment.

ETE 401 Secondary Special Education 3 hrs.
Skills to plan, implement, and evaluate educational programs for early and later adolescent students needing special education services in middle, junior, or high school situations. Emphasis on a developmentally sequenced planned curriculum, including basic academic skills, prevocational and vocational skills, as well as work study programs. Current issues and trends: inclusion of the middle, junior, or high school student in the least restrictive environment, life planning, consumer education, personal and social adjustment, appropriate individualized instruction, secondary group instruction, and independent living skills. Prerequisite: Advancement to degree candidacy in the department.

ETE 402 Educational Methods, Strategies, and Evaluation Techniques 3 hrs.
Designed to increase theoretical knowledge and practical skill for teaching persons with different learning styles. Classroom experiences include a focus on methods, strategies, and evaluation techniques to meet different learning styles. Cross listed as HS 402. Prerequisite: consent of PT or ETE Department Chair.

ETE 430 Readings in Elementary Education 1-3 hrs.
Individual study and investigation for seniors. Prerequisite: approval of the Dean of the College and advancement to degree candidacy in the department.

ETE 443 Early Childhood Assessment 3 hrs.
ETE 467 History and Philosophy of Early Childhood Education: An Analysis 3 hrs.

Historical foundations, theories, and philosophies. Analysis and synthesis of teaching philosophies; current professional issues and trends. Prerequisites: advancement to degree candidacy in the department; ETE 300, 304, 342, 343, 443. Corequisite: ETE 497.

ETE 490 Student Teaching Professional Portfolio 1 hr.

Self-reflection of growth as professional educators. Analysis and synthesis of teaching philosophies, professional standards, and best practices in teaching. Prerequisites: Concurrent enrollment or completion of ETE 496, 498, or 499.

ETE 496 Student Teaching for LBS I and K-8 10-13 hrs.

Teaching experience in a Learning Behavior Specialist I classroom. Teacher responsibilities: long-term planning, facilitating small and large-group learning. Self-reflection with a focus on professional growth and completion of professional teaching portfolio. Weekly seminar. Pass/Fail. Prerequisites: Advancement to degree candidacy in the department; ETE 325, 327, 329, 330, 331, 335, 336, 339, 342, 353, 390, 391, 392, 401; grade point average of 2.50 overall and 2.50 in professional education courses; current certification of freedom from TB; approval of department chair. Corequisite: ETE 490.

ETE 497 Student Teaching in Early Childhood 13 hrs.

Internship in Peoria-area classrooms, schools, and learning centers. Instructional planning and implementation in preprimary and primary learning environments. Teacher responsibilities: long-term planning, implementing an integrated curriculum, facilitating small- and large-group learning, developing an informal assessment plan. Self-reflection with a focus on professional growth and completion of a professional teaching portfolio. Weekly seminar. Pass/Fail. Open only to students who have: adequate preparation in subject matter, demonstrated proficiency with regard to program and course objectives, completed prerequisites, and evidenced fitness for entering the teaching profession. Prerequisites: advancement to degree candidacy in the department; ETE 300, 304, 342, 343, 443; grade point average of 2.50 overall, 2.50 in professional education courses, and 2.50 in teaching field; current certification of freedom from TB; approval of Department Chair. Corequisite: ETE 467.

ETE 498 Student Teaching K-8 7-13 hrs.

Placement in Peoria-area classrooms, schools, and learning centers for a full semester. Instructional planning and implementation in elementary or middle school learning environments. Teacher responsibilities: long-term planning, implementing an integrated curriculum, facilitating small- and large-group learning, developing an informal assessment plan. Weekly seminar. Pass/Fail. Open only to students who have: adequate preparation in subject matter, demonstrated proficiency with regard to program and course objectives, completed prerequisites, and evidenced fitness for entering the teaching profession. Repeatable to a maximum of 20 hours for those students seeking LBSI/ELE certification. Prerequisites: advancement to degree candidacy in the department; ETE 306, 325, 330, 335, 336, 339, 342, 353; grade point average of 2.50 overall, 2.50 in teaching field, and 2.50 in professional education courses; current certification of freedom from TB; approval of Department Chair. Corequisite: ETE 490.

ETE 499 Student Teaching in the Secondary School 7-13 hrs.

Placement in Peoria-area classrooms. Instructional planning and implementation in secondary or middle school learning environments. Teacher responsibilities: long-term planning, facilitating small- and large-group learning. Weekly seminar. Pass/Fail. Open only to students who have: adequate preparation in subject matter, demonstrated proficiency with regard to program and course objectives, completed prerequisites, and evidenced fitness for entering the teaching profession. Enrollment is for 10 credit hours with a 10-week experience or 13 credit hours with a 16-week experience. Students should consult subject area advisors for subject area pre-student teaching requirements. Prerequisites: advancement to degree candidacy in the department; completion of 2/3 of hours in teaching field; ETE 342, 360, 370, 371, 379, and the methods course appropriate to the student teacher’s teaching area (or for music education majors only, ETE 351, 352, 381, 382); grade point averages of 2.50 overall, in professional education courses, and in the teaching field(s); current certification of freedom from TB; approval of Department Chair. Corequisite: ETE 490.

ETE 506 Reading in the Content Fields 3 hrs.

Instructional and reading strategies to enhance students’ comprehension.

ETE 513 Educational Software Design 3 hrs.

The design and construction of educational software that is based upon sound educational theory and best practice. Students will become proficient with appropriate multimedia instructional design software in developing their projects. Investigating and applying current theories of learning, instruction, and assessment. Cross-listed as MM 513. Prerequisites: MM 113 or ETE 551; MM 213 or instructor approval.

ETE 515 Mathematics Methods for the Middle School 3 hrs.

Provides strategies and curriculum for teaching mathematics to youth in fifth through eighth grades. Strategies focus on problem solving, logical reasoning, and real life connections. Use of dynamic software and math modeling are emphasized. Assessment strategies appropriate for middle school mathematics will be addressed. Students will develop a deep understanding of national and state standards. Prerequisites: senior standing in an education program and advancement to degree candidacy, or teacher certification.
ETE 525 Including Learners with Exceptionalities
3 hrs.
Legal, psychological, and social impact of various disabilities, including learning disabilities, for education and life planning of included learners with exceptionalities. Psychological and educational characteristics, needs, services, regulations, and laws discussed. Includes needs of learners who are intellectually gifted and talented and have other special needs. Prerequisite: advancement to degree candidacy in the department.

ETE 543 Assessment and Evaluation Procedures for Learners with Exceptionalities
3 hrs.
Diagnostic processes for learners with exceptionalities, pre-school through high school. Screening, formal and informal assessment, and evaluation techniques. Practice in test administration, scoring, evaluation, individualized educational programs (IEPs).

ETE 544 Remedial Reading
3 hrs.
Methods and procedures for diagnosis and correction of reading difficulties; interpretation and use of reading tests for diagnosis. Prerequisite: a basic reading course.

ETE 550 Independent Study
1-3 hrs.
Student selects subject of study with advisor approval. Multiple sections may be taken concurrently. Maximum of 6 semester hours may be applied to a degree program. Prerequisite: approval of department chair and Dean of College of Education and Health Sciences.

ETE 551 Technology Applications & Integration
3 hrs.
Integrating technology into PreK-12 curriculum. Emphasizes computer as tutor, tool, and tutee; multimedia; HyperCard; telecommunications and networking; and future impact.

ETE 552 Assessment Alternatives
3 hrs.
Qualitative and quantitative student assessment methods. Creative alternatives to traditional techniques.

ETE 553 Cultural Diversity and Schooling
3 hrs.
Multicultural issues, perspectives, and current trends. Role of the teacher as decision-maker and change agent. Evaluation of materials, methods, and programs.

ETE 554 Characteristics of and Curricular Development for Learners who are Gifted
3-6 hrs.
Class will focus on all aspects of the gifted learner: cognition, psycho-social, affective, and talent development. Field placement requires curriculum design, testing procedures, identification, and direct instruction of gifted learners. Additionally, National Board Certification methodology will be utilized. Repeatable for a maximum of six hours.

ETE 560 Testing in Reading
3 hrs.
Reading assessment techniques which identify students’ reading strengths and difficulties prior to diagnostic prescriptive teaching. For teachers of grades 1-9. Prerequisites: a basic reading course; ETE 544.

ETE 570 Practicum in Reading
1-5 hrs.
Field experience in elementary reading. Focuses on current research to guide reading practice. Emphasizes alternative methods of reading instruction, other than basal approaches. May be repeated for a maximum of 6 hours credit. Prerequisite: a basic reading course.
Teacher Education Mission
The mission of Teacher Education at Bradley University is to prepare teachers who will be effective leaders, advocates, and life-long learners. We believe that teaching and learning are dynamic, interactive, life-long processes based on empowering interactions among learners.

Teacher Preparation Programs:
Bradley University offers 18 baccalaureate programs leading to state teacher certification and one graduate-level certification programs in Educational Administration, Special Education, and School Counseling.

Student Characteristics:
Most undergraduates (93.6 percent) are of traditional college age, 94 percent attend full-time, and 87 percent are Illinois residents. Eleven percent of all students are minority students. The average ACT score for fall 2006 freshmen was 25. Undergraduate enrollment is 5315. Graduate enrollment is 812. Total enrollment is 6127.

Admissions Requirements:
Candidates must have earned a minimum grade point average of 2.5 overall, 2.5 in education courses, and a 2.5 in their content major or concentration. Candidates must have earned grades of not less than a C in COM 103, ENG 101, and a mathematics course that meets university general education requirements. They must have completed a prescribed group of education courses for each major with the appropriate GPA and no Ds, passed the Illinois Certification Test of Basic Skills, demonstrated appropriate pre-professional behaviors and dispositions, been cleared on a check of criminal history, and received a satisfactory vote of the faculty.

Admission to Student Teaching: Candidates must have maintained a minimum grade point average of 2.5 overall, 2.5 in education courses, and a 2.5 in their content major or concentration. They must have been advanced to candidacy, passed the Illinois Certification Test in their content area, been cleared on a State Police fingerprint check, and have a negative result on a current TB test.

Best Practices:
• Practicum experiences in the schools begin the freshman year and continue each year of the program, increasing in responsibility.
• Each candidate will have clinical experiences in the full range of his or her certification and in a diverse setting.
• The University has Professional Development School partners at each level from early childhood through high school.

Notable Features and Accomplishments:
• Placement of graduates was 99 percent for this year.
• Bradley University’s education programs were recognized in a June 2007 publication, “Preparing STEM Teachers: The key to global competitiveness” produced by the American Association of Colleges for Teacher Education.
• In four of the last nine years a student teacher has been named one of 10 “PDK Outstanding Student Teachers” in the nation.
• Two teacher education professors have received the NBPTS (National Board for Professional Teaching Standards) certificate.
• The College and the local schools have a Professional Development School (PDS) partnership that provides unique opportunities for students and faculty.
• Opportunities exist for students to student teach in Department of Defense Schools in England.
• The College is a fourteen-year recipient of a William T. Kemper Grant which supports a partnership between Bradley University’s College of Education and Health Sciences and four selected public school sites to foster collaborative leadership and support teaching excellence.
• Science Education at Bradley has received awards from Bradley for Excellence, National Science Foundation, the Annie E. Casey Foundation, and other external grants for Science, Technology, Engineering, and Math (STEM) programming.
• Bradley University is one of three institutions of higher education in Illinois to be selected to participate in a Library of Congress national project, focusing on developing interactive learning and teaching resources for P-16 classrooms.
• The Department of Education was funded for a third year from the Casey Foundation in the amount of $75,000. The funded project, “Building Excellent Scientists for Tomorrow,” is a collaboration between the sciences and teacher education.

• Ms. Timeka Cooley, a 2006 alumna in Elementary Education, received the Spirit of Youth Award as a first-year teacher at Kipp Ascend Charter School, North Lawndale District. Ms. Cooley was recognized for her work in improving mathematics learning by urban students.

• Ms. Angelina Muskin, a 1988 alumna in the History Teacher Program, was named “Georgia Teacher of Merit for the Year for National History Day” by the Georgia Humanities Council. Ms. Muskin is a history teacher and the department chairperson for social studies at Grove High School in Savannah.

Program Profile:

| Total number of students admitted into teacher preparation, all specializations, in academic year 2006-2007 | 678 |
| Number of candidates in supervised student teaching in academic year 2006-2007 | 175 |
| Number of faculty members who supervised student teachers: | |
| • Full-time faculty in professional education | 3 |
| • Part-time faculty in professional education but full-time in the institution | 1 |
| • Part-time faculty in professional education, not otherwise employed by the institution | 14 |
| Total faculty student teaching supervisors | 18 |
| Student teacher/faculty ratio | 9.72:1 |
| The average number of student teaching hours per week | 35 |
| The total number of weeks of supervised student teaching required | 14.43 avg. |
| Average total number of hours required | 505 |


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<th>Number Passed</th>
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Note: Institutional information is not released for tests taken by fewer than ten students.
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Note: Institutional information is not released for tests taken by fewer than ten students.
Department of Family and Consumer Sciences

FACULTY Professors Collins (chair), Davidson; Associate Professor Choi; Assistant Professors Brandes, Dallmeyer, Randall.

The Department of Family and Consumer Sciences offers majors in retail merchandising; foods, nutrition, and dietetics; and family and consumer sciences education. Students may also choose to major in general family and consumer sciences, which allows flexibility.

Career opportunities continue to expand in this fast-growing field. Careers in teaching, family and consumer sciences related business, social welfare, nutrition and dietetics, family and consumer sciences extension, and fashion and retail merchandising can all result from degree programs in the Department of Family and Consumer Sciences.

Departmental Requirements

All family and consumer sciences students must meet the following family and consumer sciences core requirements listed below and professional work experience, as well as the required courses for their chosen major. Students must take a minimum of 38 hours in FCS courses.

Family and Consumer Sciences Core

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<th>Course</th>
<th>Title</th>
<th>Hours</th>
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<tr>
<td>FCS 140</td>
<td>Introduction to Family &amp; Consumer Sciences</td>
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<tr>
<td>FCS 246</td>
<td>Family Systems and Applications</td>
<td>3</td>
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<tr>
<td>FCS 300</td>
<td>Consumer Issues in America</td>
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<tr>
<td>EHS 301</td>
<td>Cooperative Education</td>
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</tr>
<tr>
<td>ETE 499</td>
<td>Student Teaching in the Secondary School</td>
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Total 12

Required Professional Work Experience:

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<td>FCS 460</td>
<td>Family and Consumer Sciences Internship (required for FCSF)</td>
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<tr>
<td>FCS 461</td>
<td>Practicum in Foods &amp; Nutrition (required for FCSD, FCSN)</td>
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Total 6

Major Requirements

Foods, Nutrition and Dietetics

Careers in health care, community and public health, wellness, foods science, foodservice, product development, food marketing, communication, and business consulting offer many diverse opportunities for graduates in this major. The two concentrations within this major are: 1) Dietetics and 2) Foods and Nutrition. Students choosing the dietetic concentration will be enrolled in the didactic program in dietetics (DPD). The DPD at Bradley University is currently granted initial accreditation by the Commission on Accreditation for Dietetic Education (CADE) of the American Dietetic Association, 120 Riverside Plaza, Chicago, IL 60606-6995, 312/899-5400. CADE is currently recognized by the Council on Higher Education Accreditation (CHEA) and the United States Department of Education (USDE). Students who graduate from this program with a C or better in all FCS required courses will receive a verification statement that will allow them to pursue a CADE-accredited dietetic internship to take the national registration examination to become registered dietitians. The Foods and Nutrition concentration offers a flexible professional program for the pursuit of entry level careers in foods and nutrition. Students completing the Foods and Nutrition concentration will not be eligible to pursue dietetic internships and become registered dietitians.

Dietetic Concentration

University Requirements

Candidates for all baccalaureate degrees must complete requirements in general education. Within the Math; Cultural Diversity and Social Forces; and Science categories, students in this concentration should choose the following:

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<tr>
<td>ECO 100</td>
<td>Introduction to Economics</td>
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<td>PSY 104</td>
<td>Principles of Psychology</td>
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<td>CHM 100</td>
<td>Fundamentals of General Chemistry</td>
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Family & Consumer Sciences Core 12

(See "Family and Consumer Sciences Core" above.)

Required Professional Work Experience

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### Required Supporting Courses

**27-30 Credits**

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<td>CHM 153 Organic-Biochemistry Lab</td>
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</tr>
<tr>
<td>BIO 200 Human Anatomy and Physiology</td>
<td>3</td>
</tr>
<tr>
<td>BIO 202 Microbiology and Immunology</td>
<td>4</td>
</tr>
<tr>
<td>BIO 203 Human Anatomy and Physiology Lab</td>
<td>2</td>
</tr>
<tr>
<td>BIO 205 Pathophysiology</td>
<td>3</td>
</tr>
<tr>
<td>BMA 352 Management and Organization Theory</td>
<td>3</td>
</tr>
<tr>
<td>or PSY 310* Industrial and Organizational Psychology</td>
<td>3</td>
</tr>
<tr>
<td>MTG 315 Principles of Marketing</td>
<td></td>
</tr>
<tr>
<td>1 3-hour course Learning Theory</td>
<td>3</td>
</tr>
<tr>
<td>Suggest: FCS 341 Human Development through the Lifespan or PSY 302 Psychology of Learning or PSY 304 Developmental Psychology</td>
<td>3</td>
</tr>
<tr>
<td>CHM 391 Medical Terminology</td>
<td>1</td>
</tr>
</tbody>
</table>

* Prerequisites for PSY 310 are PSY 104 and PSY 205 or equivalent, which may increase the total hours of required supporting courses.

### Required Certificate

- Certificate in Food Service Sanitation by State of Illinois; to be completed before enrolling in FCS 408

### Foods and Nutrition Concentration

#### University Requirements

Candidates for all baccalaureate degrees must complete requirements in general education. Within the Math; Cultural Diversity and Social Forces; and Science Categories, students in this concentration should choose the following:

- MTH 111 Elementary Statistics......................... 3
- ECO 100 Introduction to Economics or ECO 221 Principles of Microeconomics......................... 3
- PSY 104 Principles of Psychology......................... 3
- BIO 121 Life Science I.................................... 3
- CHM 100 Fundamentals of General Chemistry........... 3
- CHM 101 Fundamentals of General Chemistry Lab..... 1

#### Family and Consumer Sciences Core................. 12

(See catalog, page 142 for complete listing of FCS core)

#### Required Professional Work Experience

FCS 461 Practicum in Foods and Nutrition................ 3

### Additional Required FCS Courses

**23 Credits**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>FCS 104 Introductory Food Principles</td>
<td>4</td>
</tr>
<tr>
<td>FCS 220 Consumer Issues in Healthcare</td>
<td>3</td>
</tr>
<tr>
<td>FCS 303 Nutrition</td>
<td>3</td>
</tr>
<tr>
<td>FCS 306 Community Nutrition</td>
<td>3</td>
</tr>
</tbody>
</table>

#### I. Required:

- FCS 411 * Medical Nutrition Therapy............. 4

#### II. Select 10 hours from the following:

- FCS 203 Health, Safety and Nutrition............. 3
- FCS 304 Sports and Exercise Nutrition............ 3
- FCS 307 Lifecycle Nutrition........................ 2
- FCS 309 Investigation of Food Topics............... 3
- FCS 405 Food Service Systems....................... 3
- FCS 408 Management in Food Service............... 3
- FCS 410 * Advanced Nutrition....................... 4

* Some courses require prerequisites which will add additional hours.

#### Required Supporting Course...................... 3

BIO 200 Human Anatomy and Physiology.................. 3

#### Required Certificate

Certificate in Food Service Sanitation by State of Illinois; to be completed before enrolling in FCS 408

#### Required Minor........................................... 12-23

The student choosing a concentration in Foods and Nutrition is allowed sufficient curriculum flexibility to specialize in a particular area of interest including public and community nutrition, nutrition and wellness, or foodservice management. Guided by the interest of the student, a minor to support the student's career goals will be incorporated into the degree plan. Depending on the minor chosen, 12-23 hours of minor coursework will be required.

### General Family and Consumer Sciences

This flexible curriculum is designed for students who have interest areas in family and consumer sciences other than specific majors offered by the department at Bradley University. Examples of interest areas appropriate for this major include foods, nutrition, apparel, textiles, living environments, child development and family relationships, or careers in cooperative extension services.

The major requires a minimum of 38 Family and Consumer Sciences hours, including the Family and Consumer Sciences core.

#### University Requirements

Candidates for all baccalaureate degrees must complete requirements in General Education. Within the Cultural Diversity and Social Forces General Education category, students in this major should choose the following:

- ECO 100 Introduction to Economics or ECO 221 Principles of Microeconomics......................... 3
- PSY 104 Principles of Psychology......................... 3
Family and Consumer Sciences Core.................................12
(See catalog, page 142 for complete listing of FCS core)

Required Professional Work Experience
Choose one of the following:
FCS 460 Family and Consumer Sciences Internship ..........3
FCS 461 Practicum in Foods and Nutrition .........................3
EHS 301 Cooperative Education Internship ......................0-3

Additional Required FCS courses:
I. Foods and Nutrition (choose at least two)
FCS 104 Introductory Food Principles .................................4
FCS 203 Health, Safety and Nutrition .................................3
FCS 303 Nutrition ................................................................3
FCS 304 Sports and Exercise Nutrition .................................3
FCS 306 Community Nutrition ...........................................3
FCS 309 Investigation of Food Topics .................................3
FCS 405 Food Service Systems ...........................................3
FCS 406 Issues and Trends in Foods and Nutrition ..........3
FCS 407 Nutritional Assessment ........................................2
FCS 408 Management in Food Service ...............................3
FCS 410 Advanced Nutrition ..............................................3
FCS 411 Medical Nutrition Therapy ......................................4

II. Clothing and Textiles (choose at least two)
FCS 130 Clothing in Contemporary Society .........................3
FCS 133 Apparel Production and Analysis .........................3
FCS 231 Pattern Making ..........................................................3
FCS 233 Consumer Textiles ...................................................3
FCS 330 Fashion Merchandising ...........................................3
FCS 331 Fashion Merchandising Laboratory .....................1
FCS 332 Advanced Clothing Construction .........................3
FCS 333 Advanced Textiles ....................................................3
FCS 334 Visual Merchandising and Promotion ....................3
FCS 338 International Fashion Merchandising .................3
FCS 433 Issues and Trends in Apparel and Textiles ..........3
FCS 438 Global Trends in Apparel and Textiles .................3
FCS 536 World of Fashion ......................................................3

III. Human Ecology (choose at least two)
FCS 220 Consumer Issues in Health Care .........................3
**FCS 300 Consumer Issues in America .........................3
FCS 357 Housing and Interior Design ...............................3
FCS 359 Applied Projects in Interior Design ......................3

IV. Child/Family (choose at least two)
**FCS 246 Family Systems and Applications ..................3
FCS 307 Lifecycle Nutrition ................................................2
FCS 341 Human Development Through the Lifespan ..........3
FCS 342 Child Development Laboratory ............................3
FCS 440 Family Relations (choice within core) .................3
**FCS 400 Sr. Seminar in Family & Consumer Sciences ....1

Total 18

A minimum of 38 semester hours in family and consumer sciences, including the family and consumer sciences core, is required for all family and consumer sciences majors. Students should choose courses in the following concentrations:

Nutrition, and Wellness and Hospitality
Choose 12 hours from the following courses:
FCS 104 Introductory Food Principles .................................4
FCS 203 Health, Safety and Nutrition or
FCS 303 Nutrition ................................................................3
FCS 220 Consumer Issues in Health Care .........................3
FCS 306 Community Nutrition ...........................................3
FCS 309 Investigation of Food Topics .................................3
FCS 405 Food Service Systems or FCS 408
Management in Food Service ...........................................3

Apparel and Textiles
Choose 12 hours from the following courses:
FCS 130 Clothing and Human Behavior .............................3
FCS 133 Apparel Product Analysis ........................................3
FCS 233 Consumer Textiles ..................................................3
FCS 231 Pattern Making (3); or FCS 332 Advanced Clothing
Construction (3); or FCS 330 Fashion Merchandising
(3) and FCS 331 Fashion Show Production (1) .... 3 or 4
FCS 334 Visual Merchandising and Promotion .................3
FCS 336 History of Fashion ..................................................3

Family and Consumer Sciences Education
Students who choose the family and consumer sciences education program (FCST) can meet Illinois certification requirements for teaching family and consumer sciences in junior and senior high schools. Graduates receiving certification have found employment in public schools throughout the United States.

All students must complete the family and consumer sciences core. Student teaching (ETE 499) fulfills the professional work experience requirement. As in any good program, revisions are being made continually; students should consult the Department of Teacher Education chair about current program requirements. Secondary education teacher candidates should refer to the teacher education department for requirements beyond professional education courses for secondary education. Candidates will have an advisor in both Family and Consumer Sciences and the Department of Teacher Education.

FCST Foundational Requirements
These courses are required for all secondary education majors in family and consumer sciences.
**FCS 140 Introduction to Family & Consumer Sciences ......2
**FCS 246 Family Systems and Applications ..................3
**FCS 300 Consumer Issues in America .........................3
**FCS 341 Human Development Through the Lifespan ..........3
FCS 342 Child Development Laboratory ............................3
FCS 440 Family Relations .....................................................3
**FCS 400 Sr. Seminar in Family & Consumer Sciences ....1

Total 18

A minimum of 38 semester hours in family and consumer sciences, including the family and consumer sciences core, is required for all family and consumer sciences majors. Students should choose courses in the following concentrations:

Nutrition, and Wellness and Hospitality
Choose 12 hours from the following courses:
FCS 104 Introductory Food Principles .................................4
FCS 203 Health, Safety and Nutrition or
FCS 303 Nutrition .................................................................3
FCS 220 Consumer Issues in Health care .........................3
FCS 306 Community Nutrition ...........................................3
FCS 309 Investigation of Food Topics .................................3
FCS 405 Food Service Systems or FCS 408
Management in Food Service ...........................................3

Apparel and Textiles
Choose 12 hours from the following courses:
FCS 130 Clothing and Human Behavior .............................3
FCS 133 Apparel Product Analysis ........................................3
FCS 233 Consumer Textiles ..................................................3
FCS 231 Pattern Making (3); or FCS 332 Advanced Clothing
Construction (3); or FCS 330 Fashion Merchandising
(3) and FCS 331 Fashion Show Production (1) .... 3 or 4
FCS 334 Visual Merchandising and Promotion .................3
FCS 336 History of Fashion ..................................................3

2008-2009 Undergraduate Catalog
**Living Environments**  
Choose 12 hours from the following courses:  
FCS 233 Consumer Textiles .................................................. 3  
**FCS 246 Family Systems and Applications** .......................... 3  
**FCS 300 Consumer Issues in America** .................................. 3  
FCS 334 Visual Merchandising and Promotion ........................... 3  
FCS 357 Housing and Interior Design ...................................... 3

**Retail Merchandising**  
Graduates in this area are prepared for careers in merchandising, sales, operations, buying, and other related areas in the retail fashion industry. A minor in business management or marketing is required for this major.

**University Requirements**  
Candidates for all baccalaureate degrees must complete requirements in General Education. Within the Math; Cultural Diversity and Social Forces; and Sciences categories, students in this major should choose the following courses:  
CHM 100 Fundamentals of General Chemistry .......................... 3  
CHM 101 Fundamentals of General Chemistry Lab ..................... 3  
ECO 100 or ECO 221 .................................................................. 3  
MTH 111 Elementary Statistics ............................................... 3  
PSY 104 Principles of Psychology ........................................... 3

Students must complete a minimum of 38 hours in FCS courses.

**Family and Consumer Sciences Core** ......................... 12

**Required Professional Work Experience**  
FCS 460 Family & Consumer Sciences Internship ...................... 3

**Additional Required FCS Courses** .................................. 28  
(must earn C or better in each of these courses)  
FCS 130 Clothing and Human Behavior .................................. 3  
FCS 133 Apparel Production and Analysis .................................. 3  
FCS 233 Consumer Textiles .................................................. 3  
FCS 330 Fashion Merchandising .............................................. 3  
FCS 331 Merchandising Lab .................................................... 1  
FCS 333 Advanced Textiles ................................................... 3  
FCS 334 Visual Merchandising and Promotions ....................... 3  
FCS 336 History of Fashion .................................................... 3  
FCS 438 Global Issues of Textile and Apparel ............................ 3  
FCS elective (FCS 338 or 357) .................................................. 3

**Required Supporting Courses** ........................................ 6  
ART 227 Basic Graphic Design .............................................. 3  
MTG 381 Integrated Marketing Communications or  
COM 220 Advertising as Communication ................................ 3

**Required Minor: Option I or Option II**  
**Option I** ........................................................................ 15  
A management minor described in this catalog under the  
Business Management and Administration Department,  
Foster College of Business Administration.

**Option II** ........................................................................ 15  
A marketing minor described in this catalog under the  
Marketing Department Foster College of Business  
Administration.

**International Concentration**  
Family and consumer sciences majors may wish to elect this option with careful consultation with an academic advisor.  
Students who elect this emphasis must complete **eighteen hours** fulfilled in the following manner.

**Category A:**  
Six credit hours chosen from the following courses:  
FCS 338 International Fashion Merchandising ......................... 3  
FCS 406 Issues and Trends in Foods and Nutrition .................. 1-3  
FCS 433 Trends in International Textiles .................................. 3  
FCS 401/402 or 585 Independent Readings, Independent  
Problems, or Topics in Family and Consumer Sciences  
with an international focus .................................................... 1-6

**Category B:**  
Six credit hours chosen from the following courses:  
MTG 346 International Marketing ......................................... 3  
IB 306 Introduction to International Business .................... 2  
IB 400 Topics in International Business ................................. 1-4

or  
Two courses chosen from a minor in area studies with  
an international focus such as Asian studies or Russian  
and East European studies. This would include any two  
courses from the required or elective course list, consisting  
of courses in history, international studies, religious  
studies, sociology, art, and Japanese, for example.

**Category C:**  
Six credit hours taken outside the United States, which could  
include the Bradley European Summer Semester Abroad,  
a full semester spent in another country, or two interim  
courses spent in other countries. (Only Bradley-directed  
hours count for residence hours.)

or  
Any two semesters of foreign language courses (not used  
for any other requirement in this concentration) taken  
for credit.

**Family and Consumer Sciences Minor**  
The minor in family and consumer sciences enhances other career options, provides career flexibility, and enhances personal knowledge.  
This minor will allow students to choose courses within:  
• General Family and Consumer Sciences  
• Foods, Nutrition, and Dietetics  
• Apparel and Textiles/Interior Design  
• Child Development/Family Relationships

Transfer policies for minors are the same as for family and consumer sciences majors. Prior approval of transfer credit must be secured from the chair of Family and Consumer Sciences.

The requirements for a minor in family and consumer sciences are:
1. A minimum of 17 semester hours in family and consumer sciences as specified below.
2. Complete FCS 140, Intro. to Family & Consumer Sciences (2 hrs.) and FCS 300 Consumer Issues In America (3 hrs.)
3. At least nine of the remaining 12 semester hours must be in Family and Consumer Sciences courses above the 100 level.

4. No fewer than six of the remaining 12 semester hours must be in Family and Consumer Sciences courses at the 300 level or above.

Course Descriptions

FCS 104 Introductory Food Principles 4 hrs.
Scientific principles of food preparation and selection. Laboratory experiences demonstrate theoretical concepts.

FCS 130 Clothing and Human Behavior 3 hrs.
Interdisciplinary study of cultural, social, psychological, economic, and aesthetic relationship of clothing to today’s society.

FCS 133 Apparel Product and Analysis 3 hrs.
Study of apparel production, including apparel components, structure, quality, and serviceability. Includes laboratory.

FCS 140 Introduction to Family and Consumer Sciences 2 hrs.
Family and consumer sciences professions, history, philosophy, theory and foundations.

FCS 203 Health, Safety, and Nutrition 3 hrs.
Personal health of PreK-12 learners, including nutrition and safety issues. Meeting health needs of learners in group settings. Healthy lifestyle, preventive health, and community health.

FCS 220 Consumer Issues in Health Care 3 hrs.
Possible care obtained, level of health care, and how to access care for persons from birth to death. Cross listed as HS 220. Prerequisite: HS 110 or consent of a cross-listed Department Chair (PT, FCS).

FCS 231 Pattern Making 3 hrs.
Principles of flat pattern method; pattern alteration; original pattern design; completed garment. Prerequisite: FCS 133 or consent of instructor.

FCS 233 Consumer Textiles 3 hrs.
Consumer-oriented study of textiles emphasizing fibers, yarns, fabric constructions, and finishes. Two hours of lecture and two hours of laboratory per week.

FCS 246 Family Systems and Applications 3 hrs.
Study of family systems and management theory with application of concepts in the near environment of family and consumer. Prerequisites: FCS 140.

FCS 300 Consumer Issues in America (Gen. Ed. SF) 3 hrs.
Personal finance, consumer credit, durable and non-durable goods and services, and consumer protection in the marketplace.

FCS 301 Nutrition Today (Gen. Ed. TS) 3 hrs.
Problem-based learning approach to examine current issues and nutritional practices through exploration of underlying biochemical and physiological principles; formulation of personal diet and wellness plans. Prerequisites: jr./sr. standing; one college-level science course. Not open to students who have taken FCS 203 or 303.

FCS 303 Nutrition 3 hrs.
Human energy and nutrient utilization and requirements as related to health and performance. Prerequisite: one of the following: BIO 121-124, CHM 100, CHM 110 & 111, or CHM 116 & 117.

FCS 304 Sports and Exercise Nutrition 3 hrs.
Design of approximate diets for exercise and sports to enhance utilization and maximize performance. An integrative, case study approach. Prerequisites: junior standing.

FCS 306 Community Nutrition 3 hrs.
Emphasis on community needs assessment, disease prevention programming, cultural nutrition practices, public and private nutrition policy, and community nutrition promotion. Prerequisites: FCS 220, 303.

FCS 307 Life Cycle Nutrition 2 hrs.
Current issues in maternal, child, adolescent, and elderly nutrition with emphasis on nutrient requirements related to physiological changes, assessment of food security, and delivery of cost-effective quality nutrition. Prerequisites: FCS 104, 303.

FCS 309 Investigation of Food Topics 3 hrs.
Group and individual investigation of and experimentation with scientific principles of food and research. Prerequisite: FCS 104.

FCS 330 Fashion Merchandising 3 hrs.
Merchandising: organization, operation, and interrelationship of major facets of textile and clothing industry. Prerequisites: FCS 130, 233.

FCS 331 Fashion Merchandising Laboratory 1 hr.
Experimental work related to fashion merchandising. Prerequisites: FCS 130, 233; concurrent enrollment in FCS 330.

FCS 332 Advanced Clothing Construction 3 hrs.
Tailoring and experimental construction techniques in individual projects. Prerequisite: FCS 133 or consent of instructor.

FCS 333 Advanced Textiles 3 hrs.
Principles of textile science, testing and quality analysis, standardized measurement and evaluation of quality, physical characteristics, and performance of textile products. Developing products and specifications. Prerequisites: MTH 111, FCS 133.
FCS 334 Visual Merchandising and Promotion  3 hrs.
The investigation and application of various areas and methods of merchandise presentation to maximize the salability of merchandise. Prerequisites: FCS 330, 331.

FCS 336 History of Fashion  3 hrs.
Historic costume and relationship to contemporary dress; emphasis on design and current fashion.

FCS 338 International Fashion Merchandising  3 hrs.
Intensified study in major international fashion markets including fashion merchandising, public relations, advertising, and career opportunities. Prerequisite: FCS 233 or consent of instructor.

FCS 341 Human Development Through the Lifespan  3 hrs.
Physical, cognitive, emotional and social growth and development throughout the human lifespan. Not open to students with credit in PSY 304 or PSY 314.

FCS 342 Child Development Laboratory  3 hrs.
Practical experience working with 3 year olds. Prerequisite: FCS 341 or PSY 304 or ETE 225 or equivalent.

FCS 357 Housing and Interior Design Concepts  3 hrs.
Basic concepts of housing and interior design; emphasis on historic periods and their relationship to contemporary housing and furnishings.

FCS 359 Applied Projects in Interior Design  3 hrs.
Interior design with emphasis on cost considerations, room area, and atmosphere. Prerequisite: FCS 357.

FCS 400 Senior Seminar in Family & Consumer Sciences  1 hr.
Personal exploration of interrelated knowledge and professional competencies in family and consumer sciences; factors influencing research. Emphasis on family and consumer sciences as an integrated field of study. Prerequisites: senior standing; family and consumer sciences major or minor.

FCS 401 Readings in Family & Consumer Sciences  1-3 hrs.
Individual readings in specialized areas of family and consumer sciences for qualified students, under faculty supervision. Prerequisite: consent of department chair.

FCS 402 Problems in Family & Consumer Sciences  1-3 hrs.
Independent study in family and consumer sciences for qualified students, under faculty supervision. Prerequisite: consent of department chair.

FCS 405 Food Service Systems  3 hrs.
Menu planning, food production, and service in food service systems. Prerequisite: FCS 104 or consent of instructor.

Topics of special interest which may vary each time course is offered. Topic and prerequisite stated in current Schedule of Classes. May be repeated under different topics for a maximum of six hours credit. Prerequisite: FCS 303 or consent of instructor.

FCS 407 Nutrition Assessment  2 hrs.
Evaluation of nutritional status by dietary assessment, anthropometric measures, and nutrition-related health indicators; body composition assessment and interpretation of clinical, laboratory, and dietary data; charting and health communications. Prerequisites: FCS 303.

FCS 408 Management in Food Service  3 hrs.
Management of human resources, finance, products, services, facilities and equipment, sanitation and safety, and marketing in food service. Prerequisites: FCS 104, BIO 202, Sanitation Certification.

FCS 410 Advanced Nutrition  4 hrs.
Biochemistry of energy and nutrient utilization in relation to human biological functions. Prerequisites: FCS 303; BIO 200; CHM 151, 152.

FCS 411 Medical Nutrition Therapy  4 hrs.
Dietary modification for specific disease states, treatment modalities, and drug interactions; emphasis on biochemical and pathophysiological rationale. Prerequisite: FCS 410; BIO 205.

FCS 433 Issues and Trends in Apparel & Textiles  3 hrs.
Topics of special interest which may vary each time course is offered. Topic stated in current Schedule of Classes. Course may be repeated for a maximum of 6 hours credit. Prerequisite: FCS 130 or 233 or consent of instructor.

FCS 438 Global Issues in Textiles and Apparel  3 hrs.
Evaluation of key issues facing textile and apparel business in global markets considering ethical, economic, political, and professional implications. Theoretical foundations of global sourcing. Prerequisites: ECO 100; FCS 133, 233, 300.

FCS 440 Family Relations  3 hrs.
Emphasis on man-woman relationship, marriage, and family interactions and reactions.

FCS 460 Family & Consumer Sciences Internship  3 hrs.
Integration of family and consumer sciences theory with applications in the workplace. Prerequisites: family and consumer sciences major; consent of department chair.

FCS 461 Practicum in Foods and Nutrition  3 hrs.
Selected practicum experience within a foods and/or nutrition related workplace. Prerequisites: family and consumer sciences major; consent of department chair.

FCS 536 The World of Fashion  2-6 hrs.
Intensified study in a major fashion market: merchandising, public relations, advertising, and career opportunities. May be repeated for a total of six hours. Prerequisites: 10 hours in clothing and textiles; or consent of instructor.

FCS 585 Topics in Family & Consumer Sciences  1-6 hrs.
Topics of special interest which may vary each time course is offered. Topic stated in current Schedule of Classes. Prerequisite: senior or graduate standing, and consent of instructor.
Department of Nursing

Approved by the Illinois Department of Financial and Professional Regulation (IDFPR).
Accredited by the National League for Nursing Accrediting Commission (NLNAC), 61 Broadway, New York, NY 10006; (212) 363-5555, ext. 153 or 800-669-1656 ext. 153; www.nlnac.org.

FACULTY  Associate Professors Ammer (chair) Cluskey (associate chair), Flannigan; Assistant Professors Baylor, Brubaker, Cenek, Cullen, Erickson, Gard, Hinrichsen, Kooker, Jackson, Pearl, Steinwedel; Instructors Ball, Bunten.

The Department of Nursing offers an undergraduate curriculum leading to a Bachelor of Science in Nursing (B.S.N.). Graduates of the program are eligible for licensure as a registered nurse (R.N.) upon successful completion of the National Council Licensure Examination (NCLEX-RN).

The purpose of the program is to prepare graduates for the beginning practice of professional nursing in a variety of settings. To achieve this purpose, a four-year educational program is provided which includes foundation, elective, and supporting courses in the humanities, the social sciences, the sciences, mathematics, and the theory and practice of nursing. The nursing major is concentrated at the upper division level. The Department of Nursing faculty believes that professional nursing responds to the needs of society by helping persons, families, and communities through therapeutic nursing care, which encompasses health teaching, health maintenance, and health promotion. The professional nurse uses clinical judgment to assist clients in achieving optimal health and adapting to altered states of health. The nursing courses provide for the acquisition of knowledge and the development of attitudes, skills, and values essential to professional nursing practice.

The objectives of the curriculum are to prepare graduates for (1) professional growth and advancement through acquired knowledge and experience; (2) graduate study in a major field of concentration in nursing; and (3) continuous personal growth and development.

The faculty of the Department of Nursing reserves the right to revise policies and course requirements based upon changes in accreditation, licensure, and nursing practice.

Admission
Applicants must meet the admission requirements of the University and of the Department of Nursing. A personal interview with a member of the faculty of the Department of Nursing is highly desirable before admission.

Instruction and Requirements
Instruction is provided in classrooms and laboratories on the campus and in a variety of health care agencies in the community. Clinical experiences (practicum) are planned and supervised by Department of Nursing faculty members.

In addition to the fees and expenses listed in the University catalog, students majoring in nursing are financially responsible for the purchase and maintenance of uniforms, for certain practicum and laboratory supplies and materials, and for transportation between the campus and the community agencies where clinical experiences are provided.

Prior to enrollment in the first nursing course that includes a practicum, each student must show proof of

1. Liability insurance.
2. Immunity to rubeola (measles) by one of the following:
   a. a rubeola (measles) immunization received in 1980 or later, or
   b. written verification from a physician of having had the disease, or
   c. a birth date prior to 1957.
3. Immunity to rubella (German measles) by one of the following:
   a. written verification of having had the immunization, or
   b. written verification of rubella titer.
4. Immunity to hepatitis B virus.
5. Tuberculin test (renewable annually).
6. Proof of current CPR (healthcare provider or professional rescuer) and first aid certification.


In order to progress in the nursing program, students must pass the designated competency test(s) for each respective nursing course.

Graduation requirements include a course in statistics (MTH 111, QM 262, PSY 205, or ELH 510).
Students must maintain a 2.50 cumulative grade point average in order to enroll in nursing courses identified as "majors only."

Students must earn a grade of C or better in every required nursing course. Students must earn a grade of C or better in BIO 200 and 203 Anatomy and Physiology and lab, BIO 205 Pathophysiology, and BIO 202 Microbiology.

Transfer students are evaluated for admission on an individual basis. A fifteen-year limitation on transfer credit will be imposed on courses in chemistry, physiology, microbiology, and nutrition.

Licensed nurses must meet the admission requirements of the University and of the Department of Nursing. Nurse applicants must submit a transcript from an approved school of nursing and verification of current Illinois licensure.

Registered nurses may earn up to 31 semester hours of credit for prior learning. Following completion of NUR 300, 303, and 310 with a minimum grade of "C" the registered nurse student may enroll in required senior nursing courses NUR 404, 417, 418, and 522.

The RN student will meet University requirements for general education, basic skills, junior/senior hours, and residency credit in order to graduate. The RN student will meet nursing department requirements for natural and social science courses, statistics, and nine hours of nursing electives. Sixty-six semester hours may be transferred from a community college.

Licensed practical nurses may earn up to 11 semester hours of credit for prior learning. Following completion of NUR 300 and 310 with a minimum grade of "C" the licensed practical nurse student may enroll in required junior nursing courses. Students majoring in nursing will pursue the following recommended curriculum:

**Freshman Year**

**First Semester**

- COM 103 Oral Comm. Process .............................................3
- PSY 104 Principles of Psychology: Social Forces 
  and Individual Behavior ....................................................3
- CHM 100 Fund. of Gen. Chemistry .........................................3
- CHM 101 Fund. of Gen. Chemistry Laboratory .......................1
- BIO 121 Life Science I .........................................................3
- MTH 111 Elementary Statistics ............................................3

**Second Semester**

- ENG 101 Composition .........................................................3
- CHM 151 Fund. of Organic Chemistry ....................................2
- CHM 152 Fund. of Biochemistry ............................................2
- BIO 202 Microbiology and Immunology ...............................4
- SOC 100 Soc. Perspective ....................................................3
- Elective or General Education .............................................2

**Sophomore Year**

**First Semester**

- BIO 200 Anatomy and Physiology ........................................3
- BIO 203 Anatomy and Physiology Lab ...................................2
- NUR 200 Fundamentals of Nursing (T) ..................................4
- NUR 203 Fundamentals of Nursing (P) ..................................2
- FCS 303 Nutrition ...............................................................3

**Second Semester**

- BIO 205 Pathophysiology ...................................................3
- NUR 204 Intro. to Health Assessment ...................................2
- NUR 206 Adult Health I: Intro. to Medical-Surgical Nursing (T) ..................................................3
- NUR 207 Adult Health I: Intro. to Medical-Surgical Nursing (P) .............................................2
- PSY 304 Developmental Psychology .....................................3
- Elective or General Education .............................................3

**Junior Year**

**First Semester**

- NUR 306 Maternal/Newborn Nursing (T) ..............................3
- NUR 307 Maternal/Newborn Nursing (P) ..............................2
- NUR 308 Nursing of Children (T) .........................................3
- NUR 309 Nursing of Children (P) .........................................2
- NUR 318 Pharmacology & Nursing Implications ...................2
- PSY 345 Abnormal Psychology ............................................3

**Second Semester**

- NUR 303 Research in Nursing .............................................3
- NUR 314 Psychiatric/Mental Health Nursing (T) ....................2
- NUR 315 Psychiatric/Mental Health Nursing (P) ....................2
- NUR 316 Adult Health II: Medical-Surgical Nursing (T) .......4
- NUR 317 Adult Health II: Medical-Surgical Nursing (P) .......2
- Elective or General Education .............................................3

**Senior Year**

**First Semester**

- NUR 404 Community Health Nursing (T) ............................2
- NUR 408 Adult Health III: Medical-Surgical Nursing (T) ......3
- NUR 409 Senior Practicum I (P) ............................................5
- Jr. ENG Composition (ENG 300, 301, 304, 305, or 306) ..........3
- Electives or General Education .............................................3

**Second Semester**

- NUR 410 Adult Health IV: Nursing Care of the Patient with Multi-System Challenges (T) ..........................3
- NUR 414 Senior Seminar I ....................................................1
- NUR 417 Senior Practicum II (P) ............................................5
- NUR 418 Nursing Leadership (T) .........................................1
- Electives or General Education .............................................5

Registered nurses may receive credit for prior learning for these courses.

Licensed practical nurses may receive credit by for prior learning for these courses.
Course Descriptions

NUR 100  Introduction to the Nursing Profession  1 hr.
Students explore contemporary issues within the nursing profession. Historical development of the roles in nursing, perspectives on current delivery of health care, nursing education, nursing literature, professional licensing, ethics, and legal issues will be discussed.

NUR 163  Health of the School Age Child  3 hrs.
School health services and health education; emphasis on health promotion and prevention of health related problems. Recognition and management of common health problems of the school age child.

NUR 200  Fundamentals of Nursing (Theory)  4 hrs.
Introduction to Nursing. Concepts and theories of individuals, society, and health. Nursing process as the basis for promoting wellness within the health care delivery system. Prerequisites: SOC 100, PSY 104, CHM 100, 150 or 151, 152. Corequisite: NUR 203 or consent of department chair.

NUR 203  Fundamentals of Nursing (Practicum)  2 hrs.
Selected practicum experiences correlated with theoretical content of NUR 200 (Fundamentals of Nursing) and applied to individual’s adaptive responses. Prerequisites: majors only, sophomore standing, PSY 104, SOC 100, CHM 100, 150 or 151, 152. Corequisite: NUR 200 or consent of department chair.

NUR 204  Introduction to Health Assessment  2 hrs.
Students utilize previously learned communication techniques and newly learned physical assessment techniques to complete a comprehensive approach to health history and physical assessment. Significance of normal and abnormal findings is emphasized. Prerequisites: NUR 200, 203, BIO 200 (minimum grade of C), BIO 203 (minimum grade of C), FCS 303 or equivalent or consent of department chair. Corequisites: NUR 206, 207, PSY 304.

NUR 206  Adult Health I: An Introduction to Medical-Surgical Nursing (Theory)  3 hrs.
An introduction to medical-surgical nursing with emphasis on health promotion and restoration. Concepts and theories of nursing care of the adult are applied to foster the adaptive response of individuals. Prerequisites: majors only, BIO 200 (minimum grade of C), BIO 201 (minimum grade of C), NUR 200, 203. Corequisites: BIO 205 (minimum grade of C), NUR 204, 206, PSY 304.

NUR 207  Adult Health I: An Introduction to Medical-Surgical Nursing (Practicum)  2 hrs.
Selected practicum experiences correlated with theoretical content of NUR 206 (Adult Health 1) that foster adaptive responses. Prerequisites: majors only, BIO 200 (minimum grade of C), BIO 201 (minimum grade of C), NUR 200, NUR 203. Corequisites: BIO 205 (minimum grade of C), NUR 204, NUR 206, PSY 304.

NUR 208  Adult Health II: An Introduction to Medical-Surgical Nursing (Theory)  3 hrs.
Theoretical overview of medical-surgical nursing with emphasis on application of the nursing process to individuals and families. Concepts and theories of nursing care of the expanding family are discussed to foster the adaptive response of individuals and families. Prerequisites: majors only, junior standing, ENG 111 or equivalent. Corequisite: Math 111 or equivalent.

NUR 209  Adult Health II: An Introduction to Medical-Surgical Nursing (Practicum)  2 hrs.
Selected practicum experiences correlated with theoretical content of NUR 208 (Adult Health 2) that foster adaptive responses. Prerequisites: majors only, BIO 200 (minimum grade of C), BIO 201 (minimum grade of C), NUR 200, NUR 203. Corequisites: BIO 205 (minimum grade of C), NUR 204, 206, PSY 304.

NUR 210  Concepts in Chronic Illness  3 hrs.
Study of chronic illness and its impact on the individual, family, and society: self-awareness, cultural adaptation theory, nursing research, and societal influences on nursing and health. Prerequisites: Illinois LPN or RN licensure; consent of department chair.

NUR 213  Nutrition  3 hrs.
Concepts and theories of nutrition which affect health promotion and prevention of health related problems of the school age child.

Introduction to health concepts and practices which affect individuals and groups in society.

NUR 215  Community Health Nursing  3 hrs.
Theories of nursing, professional roles, the nursing process, adaptation theory, nursing research, and societal influences on nursing and health. Prerequisites: Illinois LPN or RN licensure; consent of department chair.

NUR 219  Women and Health  3 hrs.
Basic scientific and sociological knowledge related to women's health: social, emotional, and physiological components of selected health problems of women. Historical development of the health care system and social values as they relate to women and their health: evolution of health care today as it relates to women.

NUR 220  Alcohol: Use and Abuse  3 hrs.
Development of alcohol as the most widely-used drug. Psychological and physiological effects on the person; effect on the family and society; therapeutic approaches to alcohol abuse.

NUR 221  Substance Abuse  3 hrs.
Psychosocial and physiological impact of substance abuse on the individual, family, and society: self-awareness, culture, tolerance, withdrawal, and motivation.

NUR 223  Sexually Transmitted Diseases  1 hr.
Common sexually transmitted diseases: social and physical factors affecting their occurrence; avoidance and treatment.

NUR 263  Introduction to Personal & Community Health  3 hrs.
Introduction to health concepts and practices which affect individuals and groups in society.

NUR 300  Conceptual Bases for Professional Nursing (Theory)  3 hrs.
Theoretical analysis of the role of the RN in the delivery of patient care today as it relates to women and their health: evolution of health care today as it relates to women.

NUR 301  Conceptual Bases for Professional Nursing (Practicum)  2 hrs.
Selected practicum experiences correlated with theoretical content of NUR 300 (Conceptual Bases for Professional Nursing) that foster adaptive responses. Prerequisites: majors only, junior standing, ENG 111 or equivalent. Corequisite: Math 111 or equivalent.

NUR 302  Women's Health Issues  2 hrs.
Biological, epidemiological, psychological, and sociological aspects of women's health. Specific preventive and health promotion activities for health problems.

NUR 303  Research in Nursing  3 hrs.
As a consumer of research, the student evaluates published nursing research and its importance to the profession. The student examines steps of the research process in critically evaluating literature and writing a comprehensive review of literature. Use of the computer in nursing research correlated with study of the research process. Prerequisites: majors only, junior standing, ENG 101. Corequisite: Math 111 or equivalent.

NUR 304  Practice Nursing Management  3 hrs.
Selected practicum experiences correlated with theoretical content of NUR 303 (Research in Nursing) that foster adaptive responses. Prerequisites: majors only, junior standing, ENG 111 or equivalent. Corequisite: Math 111 or equivalent.

NUR 305  Maternal-Newborn Nursing (Theory)  3 hrs.
Theoretical overview of maternal/newborn nursing with emphasis on application of the nursing process to individuals and families. Concepts and theories of nursing care of the expanding family are discussed to foster the adaptive response of individuals and families. Prerequisites: majors only, junior standing, ENG 111 or equivalent. Corequisite: Math 111 or equivalent.

NUR 306  Maternal-Newborn Nursing (Practicum)  2 hrs.
Selected practicum experiences correlated with theoretical content of NUR 305 (Maternal-Newborn Nursing) that foster adaptive responses. Prerequisites: majors only, junior standing, ENG 111 or equivalent. Corequisite: Math 111 or equivalent.
NUR 307 Maternal-Newborn Nursing (Practicum) 2 hrs.

NUR 308 Nursing of Children (Theory) 3 hrs.
Nursing care of the child with emphasis on caring for the infant, toddler, child, adolescent, and family with acute and chronic disease. Growth and development, health promotion, and disease prevention are emphasized. Prerequisites: NUR 204, 206, 207, PSY 304, FCS 303, BIO 202. Corequisites: NUR 309, PSY 345.

NUR 309 Nursing of Children (Practicum) 2 hrs.
Selected clinical experiences correlated with theoretical content of NUR 308. Prerequisites: majors only, NUR 204, 206, 207, PSY 304, FCS 303, BIO 202. Corequisites: NUR 308, PSY 345, or consent of department chair.

NUR 310 Health Assessment 2 hrs.
Performance of a complete health assessment incorporating a health history, with faculty supervision. Prerequisites: Illinois RN licensure, consent of department chair, CPR certification.

NUR 314 Psychiatric/Mental Health Nursing (Theory) 2 hrs.
Theoretical overview of psychiatric/mental health nursing with emphasis on application of the nursing process to individuals, families, and the community. Concepts and theories of nursing care of the individual and family with psychiatric disorders are discussed to foster the adaptive response. Prerequisites: majors only, junior standing; PSY 345, NUR 200, 203, 206, 207. Corequisite: NUR 315.

NUR 315 Psychiatric/Mental Health Nursing (Practicum) 2 hrs.
Application of psychiatric/mental health nursing principles in health care settings. Concepts and theories of nursing care of the client and family with psychiatric disorders are utilized to foster the adaptive response. Prerequisites: majors only, PSY 345, NUR 200, 203, 206, 207. Corequisite: NUR 314.

NUR 316 Adult Health II: Medical-Surgical Nursing (Theory) 4 hrs.
Medical-surgical nursing with emphasis on selected physiologic systems. Concepts and theories of nursing care of the individual and family are applied to foster the adaptive response. Prerequisites: majors only; NUR 204, 206, 207. Corequisites: NUR 317, 318.

NUR 317 Adult Health II: Medical-Surgical Nursing (Practicum) 2 hrs.
Selected practicum experiences correlated with theoretical content of NUR 316 that foster adaptive responses. Prerequisites: Majors only; NUR 204, 206, 207. Corequisites: NUR 316, 318.

NUR 318 Pharmacology and Nursing Implications 2 hrs.
Introduction to pharmacology: nursing process and drug therapy; life span considerations; legal, ethical, and cultural issues; and patient education. Prerequisites: NUR 200, 203, 206, 207.

NUR 333 International Health and Nursing 3 hrs.
Study of health and nursing in another country: nursing and health organizations, educational programs, hospitals. Seminars in comparative health and nursing practices in the United States.

NUR 353 Aging: A Life Experience 3 hrs.
Attitudes about the aged, historical perspectives, transcultural concepts, health problems and health care, methods of coping with growing old, and prospects for the future. Practical experiences promote examination of students' own attitudes about the aged and growing old. Prerequisite: junior/senior standing.

NUR 372 Safety and Emergency Care 3 hrs.
Principles and techniques of emergency care for common injuries and illnesses. Environmental needs of individuals at various levels of maturity. Cardiopulmonary Resuscitation and First Aid cards awarded upon satisfactory completion.

NUR 376 Advanced Concepts in Health 3 hrs.
Complex health problems and issues in contemporary society; various concepts, models, theories, and determinants of health. Multi-disciplinary approach for application to individual and professional situations. Prerequisite: NUR 263 or consent of instructor.

NUR 391 Medical Terminology 1 hr.
Terminology used in all areas of medical and paramedical specialties. Emphasis on word building, techniques, and understanding typical medical reports. Cross listed as CHM 391. Prerequisites: 1 year college chemistry and 1 year college biology.

NUR 404 Community Health Nursing (Theory) 2 hrs.
Explores the role of the nurse in community settings. Applies principles of epidemiology, health promotion, and disease prevention to nursing practice. Examines core functions of public health nursing, essential services, and population-based practice. Prerequisites: NUR 316, 317, 318. Corequisites: NUR 409 or 417, NUR 408 or 410.

NUR 405, 406 Cooperative Education in Nursing (Theory) 0-1 hrs. each
Theory for nursing care of clients in a variety of health care settings. Prerequisites: senior standing; majors only; 2.5 GPA; consent of Co-op Nursing Advisor; and successful completion of Co-op interview. Corequisites for NUR 405: NUR 401, 411, 415. Corequisites for NUR 406: NUR 402, 412, 416.
NUR 408  Adult Health III: Medical-Surgical Nursing
(Theory) 3 hrs.
Medical-surgical nursing with emphasis on selected physiologic systems. Concepts and theories of nursing care of the individual, family, and community are applied to foster the adaptive response. Prerequisites: majors only; NUR 316, 317, 318, BIO 205. Corequisites: NUR 409.

NUR 409 Senior Practicum I 5 hrs.
Selected practicum experiences, correlated with theoretical content of NUR 408 and/or 404, that foster adaptive responses. Prerequisites: majors only, NUR 316, 317, 318, BIO 205. Corequisites: NUR 404 and 408.

NUR 410 Adult Health IV: Nursing Care of the Patient with Multi-System Challenges (Theory) 3 hrs.
Medical-surgical nursing with emphasis on caring for the patient with multi-system challenges. Concepts and theories of nursing care of the individual, family, and community are applied to foster the adaptive responses. Prerequisites: majors only; NUR 403, 408, 409. Corequisites: NUR 415, 417, 418.

NUR 414 Senior Seminar: Preparation for Professional Nursing 1 hr.
Emphasis on NCLEX preparation, including the NCLEX-RN test plan, test taking skills, critical thinking skills, and computer usage skills for test-taking. Prerequisites: majors only, senior standing. Corequisite: NUR 410; not required for RNs.

NUR 417 Senior Practicum II 5 hrs.
Selected practicum experiences correlated with theoretical content of NUR 404, 410, and 418 that foster adaptive responses. Prerequisites: majors only; NUR 408, 409. Corequisites: NUR 410, 418.

NUR 418 Nursing Leadership: Concepts & Issues 1 hr.
Emphasis is on application of the leadership and management principles and the identification of common ethical issues that arise in health care settings. Discussion includes the nurse’s role in the legislative process to facilitate change in nursing practice. Prerequisites: majors only; senior standing; NUR 303. Corequisites: NUR 410, 417.

NUR 415, 416 Cooperative Education in Nursing (Practicum) 0-2 hrs. each
In-depth practicum in a variety of health care settings, integrated with theory. Prerequisites: senior standing; majors only; 2.5 GPA; consent of Co-op Nursing Advisor; and successful completion of Co-op interview. Corequisites for NUR 415: NUR 401, 405, 411. Corequisites for NUR 416: NUR 402, 406, 412.

NUR 419, 420 Independent Studies in Nursing 1-3 hrs.
Individual study addressing special needs and interests; selected readings, observations, and conferences. Prerequisites: NUR 303; majors only; senior standing; consent of advisor and department chair.

NUR 421 Role Exploration in Professional Nursing 2 hrs.
Focuses on integrating the nursing roles of caregiver, support agent, colleague, advocate, collaborator, client educator, leader, manager, and researcher in clinical practice. Taken the last year of the curriculum, the course synthesizes content presented in previous courses. Students are placed in specialty areas according to individual preferences and learning needs. Prerequisites: majors only, senior standing; 3.0 GPA; consent of instructor and advisor; NUR 408, 409. Corequisite: NUR 410, 417.

NUR 500 Health Assessment 3-4 hrs.
Systematic method for collecting data used in holistic health assessment of children and adults. Interviewing techniques for history taking; physical assessment skills. Prerequisites: R.N. with B.S. major in nursing; or R.N. with consent of instructor.

NUR 522 Seminar on Nursing & Public Policy 3 hrs.
Nursing activities and organizations affecting practice, health care, public policy, and the future of the profession. Emphasis on generating recommendations for the profession and developing a personal professional plan for participating in the process that develops public policy at the local, state, national, and/or international level. Prerequisites: nursing majors and senior or graduate status; or consent of instructor.

NUR 533 Seminar in International Health and Nursing 3 hrs.
Study of healthcare systems and nursing in a foreign country in selected hospitals, healthcare settings, and universities. Establishing healthcare professional and research networks.
Department of Physical Therapy and Health Science

FACULTY  Professor Tippett (chair); Associate Professors Strubhar; Assistant Professors S. Bertram, Hall, McGehee (ACCE), Neelly, Peterson, Pratt, Sparks
Coordinator of Health Science Advising and Academic Experiences: R. Bertram

The Department of Physical Therapy and Health Science offers a Bachelor of Science degree with a health science major in addition to a Doctor of Physical Therapy (D.P.T.) degree. For more information regarding the D.P.T. degree, please refer to the Graduate Catalog.

Mission
The mission of the Department of Physical Therapy and Health Science is to prepare undergraduate students to enter careers in the health care industry or to enter graduate education in health related fields, and to prepare graduate students as general practitioners in Physical Therapy.

Vision
The Department of Physical Therapy and Health Science will strive to build a balanced environment of teaching, research, service and practice, which will prepare students to live and work productively in a diverse and ever-changing society.

Health Science Major
The Health Science major provides students with an excellent preparation for a doctoral degree program in physical therapy, as well as with multiple opportunities for entry-level positions in the health care industry. This is an “intercollegiate” program with classes taught by faculty from all five colleges at Bradley: Foster College of Business Administration, Slane College of Communications and Fine Arts, College of Education and Health Sciences, College of Engineering and Technology, and College of Liberal Arts and Sciences. (For course descriptions, see the catalog section for the department offering the course.)

The curriculum is designed to assist students in developing skills in communications and problem solving, acquiring knowledge and experience as health care consumers, as well as future health care industry employees, and accepting responsibility for pursuing learning over a lifetime. These skills are valuable for any position students may hold in the future.

Students also select a minor or concentration related to their interests. Sample areas are biology, business, chemistry, communication, computer science, ergonomics, foreign language, physics, psychology, sociology.

Admission Requirements
In addition to University and College of Education and Health Sciences requirements, the following are recommended for students to receive full consideration for admission to the Health Science major as a freshman:

1. a minimum of three years of high school mathematics and high school science (biology/physiology, chemistry, and physics are recommended);
2. ACT minimum score of 24 composite or SAT minimum score of 1100.

Health Science Options
Health Science majors can choose from a wide variety of courses in addition to major and minor requirements. Students may use the program’s flexibility to explore a variety of interests or may focus their electives around a particular emphasis. Listed under the following emphases are suggestions of elective courses that a student could complete to pursue a particular area of interest.

- Physical Therapy
- Pediatrics / Child Development
- Healthcare Administration
- Pre-Healthcare Professions
- Community Health Education
- Ergonomics

Physical Therapy
The core courses within the Health Science major are designed to prepare a student to meet prerequisite requirements for most entry-level graduate programs in physical therapy. Students who wish to apply to graduate programs other than Bradley’s should be aware of those programs’ specific requirements.

The Health Science major requires that students complete a minor or 12-hour concentration, approved by the Department of Physical Therapy and Health Science. Students, in the past, have minored in a variety of areas, including: business, biology, chemistry, Spanish, music, and art, along with many others. Students pursuing physical therapy are advised not to approach their preparation for graduate school with the perception that there is “one best” set of courses to take outside of the core prerequisites. Most programs, in fact, want a diverse student group who are prepared in a variety...
of different ways. While the Health Science major requires a minor or concentration, students may find that they actually have time to pursue a second major.

**Pediatrics / Child Development**

**Suggested Electives:**
- NUR 163 Health of the School Aged Child
- FCS 203 Health, Safety, and Nutrition
- FCS 341 Human Development Through the Lifespan
- FCS 342 Child Development Laboratory
- FCS 440 Family Relations
- PSY 104 Principles of Psychology
- PSY 304 Developmental Psychology

**Healthcare Administration**

**Suggested Electives:**
- ATG 157 Accounting Principles
- BMA 352 Managing in Organizations
- MTG 315 Principles of Marketing
- FIN 322 Business Finance
- ECO 221 or 100 Principles of Economics

Students pursuing this emphasis may also wish to consider the minor in either Business Studies or Business Administration.

**Pre-Health Professions**

Students majoring in Health Science may wish to pursue any number of healthcare professions including: occupational therapy, athletic training, physician assistant, speech/audiology, medical school, and chiropractic medicine. Appropriate courses, along with observation within the field, will vary depending on the profession and the specific graduate program to which the student wishes to apply.

**Community Health Education**

**Suggested Electives:**
- NUR 263 Introduction to Personal & Community Health
- SOC 341 Applied Medical Sociology
- SOC 343 Sociology of Mental Health
- SW 250 Introduction to Social Welfare

Students pursuing this emphasis may also wish to consider the multimedia minor.

**Ergonomics**

**Suggested Electives:**
- IME 386 Industrial and Managerial Engineering
- IME 570 Selected Topics in Industrial and Manufacturing Engineering
- IME 587 Occupational Safety and Health
- IME 585 Human Factors Engineering

Students pursuing this emphasis may also wish to consider the applied ergonomics minor.

**Opportunities**

The faculty of the Department of Physical Therapy and Health Science have worked with several hospitals to determine the qualifications they desire in applicants for certain positions. We have found that hospital administrators would like to have applicants with a general health science background as well as a specific area of concentration or minor. Sample concentrations or minors might include communications (patient manager, insurance case manager); computer science (information systems manager); business (business office, assistant to a development officer); science (research assistant); and engineering (research assistant or biomedical technician). Other minors may also serve health science majors well.

In addition, the Health Science major can be used as preparation for various graduate programs (e.g., physical therapy, occupational therapy, human service administration, community counseling). Graduate programs in these areas (except for occupational therapy) are offered at Bradley University.

**Required Courses**

BUS 100 Contemporary Business or BMA 352 Managing in Organizations ..............................................3
BIO 123, 124 Principles of Biology I, II.........................................................8
BIO 200, 203 Human Anatomy & Physiology (with lab).........................................................5
BIO 205 Pathophysiology .................................................................3
CHM 110 & 111; CHM 116 & 117 General Chemistry I, II .........................9
MTH 115 or 121 Calculus I.................................................................4
PHY 107, 108 General Physics I, II.........................................................8
ELH 310 Statistical Procedures or PSY 205 Quantitative Methods* ..................3
FCS 303 Nutrition  ..............................................................................3
ELH 370, 375 Human Relations Development (with lab).................................3
HS 110 Introduction to Health Science ........................................1
HS 320 Fundamentals of the Health Sciences ..................................3
HS/ETE 402 Educational Methods, Strategies, and Evaluation Techniques ........................................3
HS 460 Basic Science of Human Movement ..................................3
HS 480 Motion Analysis ..................................................................3
*Plus two of the following:
HS/FCS 220 Consumer Issues in Health Care ................................3
NUR 217 Men’s Health Issues ............................................................2
NUR 219 Women and Health ................................................................3
Total 67-68

*Health science students will take ELH 310 unless they are minoring in psychology. Psychology minors may take ELH 310 or PSY 205.

At least 124 credit hours are required for the bachelor's degree, with at least 40 credit hours at the 300 level or above. Students must also meet University general education requirements.

Health Science majors are required to take a minor or a 12-hour academic concentration, chosen in consultation with advisors in the physical therapy department and in the minor/concentration department.
Sample Curriculum

Freshman Year—Fall Semester
BIO 123 Principles of Biology I ................................. 4
CHM 110 General Chemistry I ................................. 3
CHM 111 General Chemistry I Lab .......................... 1
MTH 115 or 121 Calculus I ..................................... 4
Gen. Ed. (recommend ENG 101 or COM 103) ........... 3
HS 110 Intro to Health Science ................................ 1

Freshman Year—Spring Semester
BIO 124 Principles of Biology II ............................... 4
CHM 116 General Chemistry II ............................... 4
CHM 117 General Chemistry II Lab ........................ 1
Gen. Ed. (recommend ENG 101 or COM 103) ........... 3
Gen. Ed. (SF) .......................................................... 3
HS/FCS 220 Consumer Issues in Health Care .......... 3

Sophomore Year—Fall Semester
BUS 100 Contemporary Business* ......................... 3
PHY 107 General Physics I ...................................... 4
NUR 217 Men’s Health Issues or NUR 219 Women & Health 2-3
Elective or Minor Course ....................................... 3
Gen. Ed. (FA) .......................................................... 3

Sophomore Year—Spring Semester
PHY 108 General Physics II ..................................... 4
ELH 210 Statistical Procedures in Health Sciences or
PSY 205 Quantitative Methods .............................. 3
Gen. Ed. (SF) .......................................................... 3
Gen. Ed. (WC) ........................................................ 3
Elective or Minor Course ....................................... 3

Junior Year—Fall Semester
Minor Courses ....................................................... 6
HS 320 Fundamentals of the Health Sciences .......... 3
Gen. Ed. (C2) .......................................................... 3
BIO 200 Human Anatomy & Physiology ............... 3
BIO 203 Human Anatomy & Physiology lab .......... 2

Junior Year—Spring Semester
Elective or Minor Courses ..................................... 6
Gen. Ed. (NW) ........................................................ 3
BIO 205 Pathophysiology ........................................ 3
FCS 303 Nutrition .................................................. 3

Senior Year—Fall Semester
Elective or Minor Courses ..................................... 9
HS/ETE 402 Educ Meth, Strat, Eval .......................... 3
HS 460 Basic Science of Human Movement ............ 3

Senior Year—Spring Semester
Electives Minor Courses ......................................... 6
ELH 370 Human Relations Development ............... 2
ELH 375 Human Relations Development - Lab .......... 1
HS 480 Motion Analysis .......................................... 3
Gen. Ed. (HL or HP) ................................................ 3

Course Descriptions
HS 110 Introduction to Health Science 1 hr.
Health care professions, terminology, concepts in health science, and basic knowledge and skills of those in health science. Prerequisite: HS major or consent of department Chair.

HS 220 Consumer Issues in Health Care 3 hrs.
Possible care obtained, level of health care, and how to access care for persons from birth to death. Cross listed as FCS 220. Prerequisite: HS 110 and HS major or consent of a cross-listed Department Chair (PT, FCS).

HS 306 Health Science Applications for Sports and Exercise 3 hrs.
Integration of the understanding of basic human structure and function with common conditions that impact the physical performance of active and healthy individuals. Prerequisites: BIO 200, 203.

HS 320 Fundamentals of the Health Sciences 3 hrs.
The practical applications of biology, chemistry, and physics in the health sciences. Prerequisites: BIO 123, 124; CHM 110, 111, 116, 117; PHY 107, 108; HS major or consent of department chair.

HS 402 Educational Methods, Strategies, and Evaluation Techniques 3 hrs.
Designed to increase theoretical knowledge and practical skill for teaching persons with different learning styles. Classroom experiences include a focus on methods, strategies, and evaluation techniques to meet different learning styles. Cross listed as ETE 402. Prerequisite: HS or ETE major or consent of instructor.

HS 425 Independent Study 1-3 hrs.
Individual study and investigations through selected readings, discussion, and/or written assignment(s). May be repeated up to a total of three hours. Prerequisite: health science major and/or permission of the Department of Physical Therapy chair.

HS 460 Basic Science of Human Movement 3 hrs.
Basic science principles and functional applications that govern function of normal musculoskeletal system. Prerequisite: HS major or consent of PT Department chair.

*Students who do not take BUS 100 as a freshman or sophomore are required to take BMA 352, Managing in Organizations, as a junior or senior. BUS 100 is not open to juniors and seniors. BMA 352 is not open to freshmen and sophomores.
HS 480 Motion Analysis

3 hrs.
Analysis of the kinetics and kinematics of human motion from a variety of engineering and physical therapy perspectives. Prerequisite: HS major; HS 320; HS 460; or consent of PT Department Chair.
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The College of Engineering and Technology offers undergraduate programs of study leading to baccalaureate degrees as follows:

Program of Study and Degree Awarded

**Civil Engineering**  B.S. in Civil Engineering

**Construction**  B.S. in Construction

**Electrical Engineering**  B.S. in Electrical Engineering (computer option)

**Engineering Physics**  B.S.

**Industrial Engineering**  B.S. in Industrial Engineering

**Manufacturing Engineering**  B.S. in Manufacturing Engineering

**Manufacturing Engineering**  B.S. in Manufacturing Technology Engineering Technology

**Mechanical Engineering**  B.S. in Mechanical Engineering (biomedical engineering concentration) (energy concentration)

Our mission is to educate and graduate well-integrated individuals who possess the technical and social competence and confidence to succeed in professional practice and advanced education, to be life-long learners, and to exercise responsible citizenship. To accomplish this mission we have established the following objectives:

Our graduates should have:

1. sufficient knowledge and understanding of the appropriate scientific and mathematical fundamentals upon which to develop their professional skills;
2. skill in integrating knowledge and applying this understanding to professionally define problems and produce effective solutions;
3. effective written, oral, and graphic communication skills;
4. awareness and understanding of diverse cultures and social conditions, past and present, in which their professional and personal endeavors will take place;
5. commitment to continuing professional growth and the ethical development of their chosen discipline.

Objectives of the undergraduate curricula focus on the attainment of professional competence, the achievement of intellectual maturity and personal growth, and the development of social responsibility. All the College’s programs seek to facilitate creative communication between technologists, engineers, and scientists and those educated in the liberal arts and other disciplines. The College’s courses provide the basic bodies of knowledge with which the methods and philosophies of engineering and engineering technology are developed. The education stresses professionalism both for today and for the future.

General and special entrance requirements are listed in the admissions section of the catalog. For graduation, students in the College must satisfy Bradley’s all-University degree requirements as specified elsewhere in this catalog as well as the specific degree requirements of the program in which they major. The programs’ requirements, which incorporate requirements of appropriate professional accrediting agencies, are listed in their respective curriculum sections of this catalog. Effective academic advisement is stressed in the College; students are required to consult regularly with their academic advisor to plan their course schedules. However, students are individually responsible for insuring that their program’s requirements are met.

Specific college requirements are:

1. A minimum grade point average of 2.00 (C) must be earned in all courses taken in the College of Engineering and Technology. (See departmental program descriptions for additional requirements.)
2. All students majoring in programs in the College of Engineering and Technology are required to pass, while at Bradley, a minimum of one junior or senior level course in which writing of papers, essays, and the like is given substantial emphasis and critical evaluation.

Community college transfer students entering the College of Engineering and Technology with adequate preparation can complete their degree requirements in approximately two years. Such persons are urged to consult as early as possible with the Bradley department in which they will seek a major to make sure they meet the transfer admission requirements of their intended major. Because the fields of engineering and engineering technology are dynamic and rapidly changing, students transferring into the College from other programs in the University are usually expected to complete their major's...
graduation requirements as found at the time of transfer. A change of major may result in a change of requirements.

Students who maintain continuous enrollment and who complete work toward the baccalaureate degree within five years from the date of entry may graduate under either the catalog in effect at the time of entrance or under the catalog in effect at the time of graduation. A change in major could mean meeting new requirements in force at the time of the change as a condition for acceptance into that major. Students whose work has been interrupted for one or more semesters may be held to requirements in effect at the time of their re-enrollment.

In addition to the undergraduate programs described in this catalog, the College offers graduate work leading to Master of Science degrees in civil, electrical, industrial, mechanical, and manufacturing engineering. These graduate programs are described in detail in the Graduate Catalog.

Special Academic Programs

Cooperative Education

The College participates with employers in an optional Cooperative Education Program. Students alternate periods of full-time study with full-time employment. The program provides academic- or career-related work experiences. To be eligible, the student must have sophomore standing and a 2.0 minimum overall grade point average at Bradley. Students must have authorization to work in the United States.

Internships

Engineering internships provide engineering and technology students in good academic standing (2.0 grade point average or better) an opportunity to participate in a full-time internship semester and/or summer away from campus providing career-related work experience. This internship is equivalent in work-time to a full-time cooperative education assignment. Interns will be monitored in the same way as EGT cooperative education students. Participating students will enroll in EGT 200, EGT 300, or EGT 400 for zero credit hours. While participating in the practicum program, students may be eligible, the student must have sophomore standing and a 2.0 minimum overall grade point average at Bradley. Students must have authorization to work in the United States.

Practicums

Undergraduate students enrolled in chemistry, civil engineering, computer science, construction, electrical engineering, industrial engineering, manufacturing engineering, manufacturing engineering technology, mechanical engineering, and physics have an opportunity for off-campus employment for 10-20 hours per week in the engineering practicum program. Students are assigned technically challenging projects with a near-term economic payback. Participating students will be enrolled in EGT 200, EGT 300, or EGT 400 for zero credit hours. While participating in the practicum program, students may wish to enroll in fewer credit hours of academic courses. Such students are still considered by the University to have full-time status, making normal progress towards a degree in a recognized University program. However, students who wish to enroll in less than 12 semester hours of credit should consult the director of financial assistance about possible impact on financial aid and/or insurance benefits. Students must have authorization to work in the United States.

Course Descriptions

EGT 200 Sophomore Engineering Practicum 0 hrs.
Solving technically challenging problems with a near-term economic benefit. Only for students approved for practicum by the Dean’s Office. Pass/fail.

EGT 210 Sophomore Engineering Internship 0 hrs.
Full-time internship away from campus for engineering and technology students to gain academic or career-related work experience in industry. May be repeated only with consent of internship coordinator and internship faculty advisor. Satisfactory/Unsatisfactory. Prerequisites: sophomore standing in College of Engineering and Technology, 2.0 overall grade point average at Bradley, approval of internship coordinator and internship faculty advisor.

EGT 300 Junior Engineering Practicum 0 hrs.
Solving technically challenging problems with a near-term economic benefit. Only for students approved for practicum by the Dean’s Office. Pass/fail.

EGT 310 Junior Engineering Internship 0 hrs.
Full-time internship away from campus for engineering and technology students to gain academic or career-related work experience in industry. May be repeated only with consent of internship coordinator and internship faculty advisor. Satisfactory/Unsatisfactory. Prerequisites: junior standing in the College of Engineering and Technology, 2.0 overall grade point average at Bradley, approval of internship coordinator and internship faculty advisor.

EGT 400 Senior Engineering Practicum 0 hrs.
Solving technically challenging problems with a near-term economic benefit. Only for students approved for practicum by the Dean’s Office. Pass/fail.

EGT 410 Senior Engineering Internship 0 hrs.
Full-time internship away from campus for engineering and technology students to gain academic or career-related work experience in industry. May be repeated only with consent of internship coordinator and internship faculty advisor. Satisfactory/Unsatisfactory. Prerequisites: senior standing in the College of Engineering and Technology, 2.0 overall grade point average at Bradley, approval of internship coordinator and internship faculty advisor.
The baccalaureate program in civil engineering is accredited by the Engineering Accreditation Commission of the Accreditation Board for Engineering and Technology, 111 Market Place, Suite 1050, Baltimore, MD 21202-4012 - telephone (410) 347-7700.

The baccalaureate program in construction is accredited by the American Council for Construction Education and is a charter member of the Associated Schools of Construction.

FACULTY Emeritus Professors Dini, Muvdi, Guest, Rebholz; Professors Adrian, Al-Khafaji (chair), Fuesse; Associate Professors Elhouar, Hindi, Mailacheruvu, Seckler; Assistant Professors El-Chabib, Immanuel, Schattler, Yamin; Temporary Assistant Professors George, Wolfe.

The Department of Civil Engineering and Construction offers undergraduate programs in both civil engineering (B.S.C.E.) and construction (B.S.C.).

Mission Produce graduates who possess a keen awareness of the global dimensions of our profession, leadership skills required to serve our society, and the technical knowledge to pursue multiple career paths, including advanced degrees. To achieve our mission, our department will strive to achieve the following civil engineering program objectives:

1. Offer an ABET-accredited program in Civil Engineering that promotes diversity and leadership, and employs a systematic assessment process to ensure that graduates possess the ability to excel in a wide range of civil engineering careers.

2. Offer a Civil Engineering program that provides the academic environment needed to promote teamwork, communication skills, good citizenship, ethics and public service so that graduates have the needed knowledge, experience, and professionalism to be leaders in their profession and society.

3. Offer an international program to ensure that Civil Engineering graduates have the needed understanding of relevant global issues and other cultures in order to pursue careers overseas and thrive in our complex and multicultural world.

4. Pursue relevant and mutually beneficial partnerships with the Civil Engineering profession to ensure that our graduates and faculty continue to benefit from and contribute to the professional community.

5. Offer a well-publicized reward system that values excellence in the traditional areas of teaching, scholarship, and service to ensure continued fulfillment and improvement of the Civil Engineering program and outcomes.

6. Promote research and scholarship activities that provide meaningful opportunities for students and faculty to participate in the development and application of new knowledge in Civil Engineering.

7. Secure the financial resources and facilities necessary to sustain the quality and distinctiveness of an imaginative Civil Engineering program that effectively responds to the needs of our profession in a changing world.

The Department Facilities The curriculum is supported by 14 cutting-edge laboratory and computer facilities equipped with modern hardware and software. Laboratories include multimedia, emerging technologies, fluid mechanics/hydraulics, surveying, concrete design, asphalt pavement design, construction, structural, geotechnical, estimating, design projects, machine shop, and research. The department has four computer laboratories, completely networked with printers, plotters, and scanners. Two of the computer laboratories are project laboratories used for senior capstone courses. Laptops are also available to students for senior project courses. The computers have a wide range of software, including multimedia software such as Authorware and Toolbook, Autocad 2000, Photoshop, Dreamweaver, Fireworks, SAP 2000, Working Model (a simulation program), word processing, spreadsheets, Powerpoint, database management programs, etc. The computer facilities are available to CEC students on a 24-hour basis.

Internationalization The Global Explorer Program is designed to expand the professional capabilities, stimulate intellectual growth, and broaden the personal perspective of all participants. Arrangements have been made with universities around the world to send our students overseas either for short courses, a semester, or an entire year. The department is committed to giving all of our students the opportunity to
study overseas. Students with financial need have received financial support that enables them to study abroad for equal to or less than what it would cost to study on campus. Financial aid is available to students choosing to study for a semester or a year overseas at another institution. Since 1995, close to 250 students have studied overseas. Each year, more than 30 students go to England, Denmark, and Egypt to study under the guidance of CEC faculty.

Scholarships Currently more than 40 annual and endowed scholarships are available to students through the department.

Placement For the past ten years CEC graduates have had a 100% placement, with starting salaries that are very competitive nationwide. Employers perceive our students as having the knowledge, experience, and intellectual curiosity to succeed in their profession.

Leadership A focus of the department is the development of leadership skills in our students. Students are encouraged to participate in student professional organizations and academic honorary organizations by being officers or committee chairs. Leadership skills are also developed through service and outreach programs that teach good citizenship. Our students have designed and built playgrounds and running tracks and have done work for Women's Strength, and the South Side Mission. Many of our students, both in civil engineering and construction, participate in the outstanding “Bridge Pal” program designed to foster an interest in engineering by high school and grade school students.

Faculty Qualifications The faculty have published more textbooks than any other civil engineering or construction department of a similar size in the United States. These textbooks are used at a large number of highly regarded institutions. CEC faculty have received numerous awards for teaching excellence and scholarship, as well as for their professional contributions. They have conducted research for national, state, and local sponsors, benefitting society and our students.

Graduation To graduate, students must meet all university and college graduation requirements. Additionally, CE students must achieve a minimum GPA of 2.25 in civil engineering courses to graduate.

Graduate Program In addition to the undergraduate program described above, the Department offers a graduate program leading to the Master of Science in Civil Engineering degree. Details of this program may be found in the Graduate Catalog. The graduate program allows talented undergraduate students to engage in scholarly research activities and to enroll in advanced courses to meet their special interests and needs.

Civil Engineering

The Department of Civil Engineering and Construction offers an ABET-accredited BSCE program that provides students the necessary background for continued professional growth and prepares them for engineering careers. The program offers a broad spectrum of specialties including structures, water resources, environmental engineering, transportation, highway and pavement design, geotechnical engineering, and construction management. The curriculum is designed to give students the broad technical background required for modern civil engineering practice and/or to pursue higher education. Students are trained to be leaders who understand their critical roles in the development and maintenance of society’s infrastructure.

The program is founded on a strong core in mathematics as well as natural and engineering sciences. Design practices in civil engineering are integrated throughout the curriculum, culminating in a two-semester capstone design course sequence under the supervision of well-qualified faculty and industrial partners. A sequence of courses in the humanities and social sciences helps students understand the impact of engineering solutions on society. The courses selected in the humanities and social sciences are chosen to provide breadth and meet university general education requirements. An approved list of courses that satisfy these requirements may be obtained from the student’s academic advisor. The curriculum gives students as much flexibility in technical electives as possible while meeting all accreditation requirements.

Freshman Year

First Semester

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>CE 100</td>
<td>Intro. to Civil Engineering</td>
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<tr>
<td>ENG 101</td>
<td>English Composition</td>
<td>3</td>
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<tr>
<td>MTH 121</td>
<td>Calculus I</td>
<td>4</td>
</tr>
<tr>
<td>COM 103</td>
<td>Oral Communication Process</td>
<td>3</td>
</tr>
<tr>
<td>1 General Education—Western Civilization</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>1 General Education—Non-Western Civilization</td>
<td></td>
<td>3</td>
</tr>
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<td><strong>Total</strong></td>
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Second Semester

<table>
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<th>Course</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>CE 150</td>
<td>Mechanics I</td>
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<tr>
<td>MTH 122</td>
<td>Calculus II</td>
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<tr>
<td>PHY 110</td>
<td>University Physics I</td>
<td>4</td>
</tr>
<tr>
<td>CON 132</td>
<td>Construction Graphics</td>
<td>2</td>
</tr>
<tr>
<td>CE 124</td>
<td>Emerging Technologies in CEC</td>
<td>2</td>
</tr>
<tr>
<td>Basic Science—Biology/Geology</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
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<td><strong>18</strong></td>
</tr>
</tbody>
</table>
### Sophomore Year

**First Semester**
- CE 206 Surveying .......................................................... 2
- CE 250 Mechanics II ...................................................... 3
- CHM 110 General Chemistry I ......................................... 3
- CHM 111 General Chemistry I Lab ................................... 1
- MTH 223 Calculus III ...................................................... 4
- CE 224 AutoCAD ............................................................ 3

**Second Semester**
- CE 210 Numerical Methods in CE .................................. 3
- CE 270 Mechanics of Materials ..................................... 3
- CE 280 Structural Materials Lab ..................................... 3
- "General Education—Fine Arts ..................................... 3
- MTH 224 Differential Equations .................................... 4

### Junior Year

**First Semester**
- CE 304 Fluid Mechanics ................................................ 4
- CE 359 Structural Analysis ............................................ 4
- "Engineering Science Elective ...................................... 3
- ENG 305 Technical Writing ........................................... 3
- CE 380 Geotechnical Engineering .................................. 3

**Second Semester**
- IME 311 Engineering Statistics I ................................... 3
- CE 360 Intro. to Environmental Engineering ................. 4
- CON 396 Construction Estimating ................................ 3
- CE 356 Pavement Design ............................................. 3
- CE 480 Transportation Engineering ............................. 3

### Senior Year

**First Semester**
- CE 403 Reinforced Concrete ........................................ 3
- CE 442 Design of Steel Structures ................................ 3
- "General Education—Social Forces ...................... 3
- "Electives ............................................................. 6
- CE 493 Senior Design Project I ................................. 1

**Second Semester**
- CE 498 CE Design Project II ....................................... 3
- "Electives ............................................................. 6
- "General Education—Human Values ...................... 3
- "General Education—Social Forces ...................... 3

### Areas of Emphasis

Students may choose to take their electives in one of the following areas of emphasis. Students also have the flexibility of taking courses from each emphasis plus other courses approved as technical electives for a combined total of 12 semester hours.

**Internationalization**

Students take two courses through the CEC Department Global Explorer Program and/or Bradley’s Study Abroad program and take an approved semester abroad.

**Sustainability**

Students take four courses, chosen from:
- CE 541 Pollution Modeling
- CE 542 Advanced Water Treatment
- CE 543 Advanced Waste Water Treatment
- CE 546 Groundwater Hydrology
- CE 550 Geoenvironmental Engineering
- CE 555 Sustainability and Environmental Regulations
- CE 558 Solid Waste Management
- ME 537 Building Engineering Management

**Infrastructure**

Students take four courses, chosen from:
- BMA 395 Real Estate Principles
- ECO 325 Urban Economics
- CE 422 Foundation Analysis and Design
- CE 430 Water Supply and Hydraulic Engineering
- CE 465 Surface Water Hydrology
- CE 508 Advanced Soil Mechanics
- CE 515 Advanced Foundation Engineering
- CE 560 Advanced Structural Analysis
- CE 562 Advanced Steel Design
- CE 565 Advanced Concrete Design
- CE 567 Prestressed Concrete Design
- CE 577 Seismic Design
- CE 580 Highway Safety
- CE 583 Geometric Highway Design
- CE 585 Advanced Pavement Design
- CE 586 Pavement Management Systems
- CON 526 Advanced Cost Estimating for Construction Projects

Note: students not selecting any of the above emphases must still meet ABET requirements by taking 12 semester hours of...
technical electives with a minimum of one civil engineering design course. The other three courses may then be engineering science.

**Civil Engineering Technical Electives**

18 credit hours

All electives selected by the student should be approved by the student's academic advisor. The student should select technical electives that reflect career objectives.

Students wishing to enroll in a CE graduate-level course must have a minimum 2.5 GPA in CE courses.

1. **Basic Science**
   Students may apply up to a maximum of 9 semester hours but not less than 3 semester hours from the following courses:
   - Any biology course
   - Any geological science course

2. **Engineering Science**
   Students may apply up to a maximum of 9 semester hours but must take IME 301, EE 327, or ME 301.
   - ME 301 Thermodynamics I
   - ME 302 Thermodynamics II
   - ME 521 Intermediate Fluid
   - ME 556 Mechanics of Composite Materials
   - ME 577 Finite Element Methods in Engineering
   - IME 301 Engineering Economy I
   - IME 313 Operations Research I
   - EE 205 Fundamentals of Circuit Analysis
   - EE 327 Fundamentals of Electrical Engineering I
   - EE 328 Fundamentals of Electrical Engineering II

3. **Civil Engineering**
   Students must select a minimum of 6 semester hours.
   - Group A: Civil Engineering Science Courses
     Students may apply up to a maximum of 9 semester hours.
     - CE 465 Surface Water Hydrology
     - CE 508 Advanced Soil Mechanics
     - CE 541 Pollution Modeling
     - CE 546 Groundwater Hydrology
     - CE 555 Sustainability and Environmental Regulations
     - CE 560 Advanced Structural Analysis
     - CE 570 Advanced Mechanics of Materials
     - CE 575 Structural Dynamics
     - CE 580 Highway Safety
     - CE 586 Pavement Management Systems
     - CE 591 Special Topics I
     - CE 592 Special Topics II
   - Group B: Civil Engineering Design
     Students may apply up to a maximum of 12 semester hours and not less than 3 semester hours.
     - CE 422 Foundation Analysis and Design
     - CE 430 Water Supply and Hydraulic Engineering
     - CE 515 Advanced Foundation Engineering
     - CE 542 Advanced Water Treatment
     - CE 543 Advanced Waste Water Treatment
     - CE 550 Geoenvironmental Engineering
     - CE 562 Advanced Steel Design
     - CE 565 Advanced Concrete Design
     - CE 567 Prestressed Concrete
     - CE 577 Seismic Design
     - CE 585 Advanced Pavement Design
     - CE 591 Special Topics I
     - CE 592 Special Topics II

4. **Mathematics, Business, and Computer Science**
   Students may apply up to a maximum of 6 semester hours.
   - Any mathematics course above MTH 224
   - Any business, accounting, marketing or economics course.
   - Any computer science course above CS 202

5. **Other**
   Students may apply up to a maximum of 6 semester hours.
   - CE 491 Special Topics I
   - CE 492 Special Topics II
   - CON 356 Construction Industry Safety Practices
   - CON 392 Construction Scheduling
   - CON 394 Construction Labor and Unions
   - CON 395 Construction Claims and Change Orders
   - CON 489 Alternate Material Structures
   - CON 492 Construction Contracts
   - CON 494 Advanced Construction Practices
   - CON 520 Construction and Engineering Practice
   - CON 522 Advanced CADD
   - CON 524 Building Information Modeling
   - CON 526 Advanced Cost Estimating
   - CON 528 Advanced Scheduling
   - CON 529 Advanced Contracts
   - CON 536 TQM Principles
   - CON 537 Construction Simulation
   - CON 540 Project and Company Management

**Course Descriptions**

**CE 100 Introduction to Civil Engineering** 1 hr.
Introduction to the civil engineering professions. Introduction to fundamental engineering concepts; engineering design; engineering ethics; professional societies; introduction to computers and computer applications.

**CE 124 Emerging Technologies in CEC** 2 hrs.
Examination of emerging computer technologies and their relevancy to Civil Engineering and Construction. Introduction to common software including spreadsheet, word processing, databases, graphics, and presentation. Exposure to
multimedia tools such as text, image, sound video, and animation. Introduction to e-mail and Web page development.

CE 150 Mechanics I 3 hrs.
Analysis of two- and three-dimensional force systems by vector algebra. Applications of principles of equilibrium to particles, rigid bodies, and simple structures. Friction, distributed forces, center of gravity, centroids, moments of inertia. U.S. and SI systems of units and applications. Prerequisite: C or better in MTH 121, MTH 119, or MTH 115.

CE 200 Engineering Co-op 0 hrs.
Full-time cooperative education assignment for civil engineering students who alternate periods of full-time school with periods of full-time academic or career-related work in industry. Satisfactory/Unsatisfactory. Prerequisites: Sophomore standing in the College of Engineering and Technology, 2.0 overall grade point average at Bradley, approval of engineering and technology Co-op coordinator and Co-op faculty advisor.

CE 206 Surveying 2 hrs.
Theory and applications of measurements of horizontal distances, differences in elevations, horizontal angles, vertical angles, bearings, azimuths, and areas and volumes. Simple horizontal and vertical curves, topographic surveys and mapping. Public land surveying system. Introduction to GPS technology.

CE 210 Numerical Methods in Civil Engineering 3 hrs.

CE 224 AutoCADD 3 hrs.
Examinations of the graphical capabilities of current computer-aided design and drafting (CADD) systems. Theoretical and hands-on applications of the most widely used CADD systems available for civil engineering applications.

CE 250 Mechanics II 3 hrs.
Kinematics and kinetics of particles and rigid bodies using vector analysis. Kinetics includes principles of force-mass acceleration, work-energy, and impulse-momentum. Prerequisite: C or better in CE 150. Corequisite: MTH 223.

CE 270 Mechanics of Materials 3 hrs.
Internal forces; stress, strain, and their relations; stresses and deformations in axial and torsional loading; indeterminate problems; stresses and deformations in flexural members; transformation of stresses; introduction to member design; column buckling analysis. Prerequisite: C or better in CE 150 or equivalent.

CE 280 Structural Materials Laboratory 3 hrs.
Experimental evaluation of the physical and mechanical properties of construction materials including soils, concrete, steel, timber, and asphalt. Index properties on soils; compaction density and consolidation; tensile, compressive, and flexural behavior of concrete, steel, and timber; concrete mix design; and physical tests on asphalt binder. Prerequisite: CE 270 or concurrent enrollment.

CE 304 Fluid Mechanics 4 hrs.
Fluid properties and fluid motion: basic laws of motion in integral form; applications of basic laws in solving fluid flow problems. Hydrostatics, dimensional analysis, similitude, and incompressible viscous flow (both laminar and turbulent) in conduits. Boundary layer theory. Introduction to open channel flow; culverts, sewers, and streams. Laboratory experiments to demonstrate theory and flow measurement in conduits and open channels. Prerequisite: C or better in CE 250.

CE 310 Probability, Statistics and Decision Making in Civil Engineering 3 hrs.
Basic probabilistic and statistical decision principles used in civil engineering design and practice. Probabilistic models and decision theory. Prerequisite: C or better in MTH 122.

CE 356 Pavement Design 3 hrs.
Pavement engineering and design. Selection testing, and use of highway pavement construction materials in relation to function, environment, and cost. Structural properties of asphalt (flexible) and concrete (rigid) pavements; laboratory experiments. Prerequisites: CE 280, CE 380 or CON 320.

CE 359 Structural Analysis 4 hrs.

CE 360 Introduction to Environmental Engineering 4 hrs.
Analysis techniques and design procedures for unit operations and unit processes for water and waste water treatment. Techniques for examination of water and waste water quality. Prerequisites: CHM 110 and CHM 111.

CE 380 Geotechnical Engineering 3 hrs.
Physical properties of soils, soil profiles, and deposits. Soil strength determination. Flow of water through soil masses. Prerequisites: CE 270, CE 280; CE 304 or concurrent enrollment.

CE 401 Seminar 1 hr.
Papers, reviews, and discussion of current technical literature. Prerequisite: senior standing in civil engineering.

CE 403 Reinforced Concrete Design 3 hrs.
CE 422  Foundation Analysis and Design  3 hrs.
Analysis and design of footings, raft foundations, retaining walls, piles, and caissons, based on current theories and design considerations in soil mechanics, concrete, and steel. Prerequisites: CE 380, 403.

CE 430  Water Supply & Hydraulic Engineering  3 hrs.
Water use and wastewater generation. Conveying and distributing water. Wastewater and stormwater conveyance system design. Design of storage structures and other systems for water conservation and water use; open channel flow, closed conduit flow, hydraulic structures, hydraulic power conversion. Prerequisite: CE 304.

CE 442  Design of Steel Structures  3 hrs.
Design of metal structural members. Behavior of members and connections. Theoretical and practical considerations in member selection and joint design. Prerequisite: C or better in CE 359.

CE 465  Surface Water Hydrology  3 hrs.
Introduction to hydrological cycle. Hydrologic measurements and monitoring. Surface water hydrology: runoff and the catchment, hydrographs, unit hydrographs, hydrograph routing, urban and small watershed hydrology, hydrologic design, synthetic streamflows, simulation models, applications of probability and statistics to surface water hydrology. Prerequisites: CE 304, CE 310 or IME 311.

CE 480  Transportation Engineering  3 hrs.
Introduction to transportation engineering and planning as it relates to highways. Characteristics of highway systems: the driver, vehicle and roadway, traffic engineering studies, highway safety, traffic flow fundamentals, capacity and level of service concepts, intersection traffic control, transportation planning and site impact analysis, geometric design of highways. Prerequisite: IME 311 or CE 310.

CE 491, 492  Special Topics  1-3 hrs. each
Topics of special interest which may vary each time course is offered. Topics stated in current Schedule of Classes. If taken to satisfy one of the technical electives, applies only to the ABET “other” category. Prerequisite: senior standing.

CE 493  Civil Engineering Design Project I  1 hr.
First of a two-semester course design project sequence. With faculty aid, students work in teams to plan the solution of a project assigned to them in their area of interest. Oral and written report of the preliminary plan. Prerequisites: senior standing and consent of department chair.

CE 498  Civil Engineering Design Project II  3 hrs.
Second of a two-semester design project sequence. With faculty aid, students continue to plan the solution of the design project selected in CE 493, including the management of the project and performance of the actual design as a member of a team. Oral and written report of final design with specifications, engineering drawings, and engineering cost estimate as well as an assessment of the impact on the environment. Prerequisites: CE 493; senior standing; consent of department chair.

CE 508  Advanced Soil Mechanics  3 hrs.
Consolidation theory and settlements, stress-path method, strength and deformation behavior of soils, failure theories, confined flow, flow nets, numerical analysis of flow, unconfined flow, seepage through earth dams. Laboratory experiments on consolidation and shear strength. Prerequisites: CE 380.

CE 515  Advanced Foundation Engineering  3 hrs.

CE 541  Pollution Modeling  3 hrs.
Phenomena that affect mass balance of contaminants in environmental systems. Advection, diffusion, dispersion, and interfacial mass transfer. Physical, chemical, and biological descriptions of these processes with mathematical models. Solutions to these models with illustrations from reactor engineering and surface water quality modeling. Application to actual process reactor. Prerequisites: senior or graduate standing; consent of instructor.

CE 542  Advanced Water Treatment  3 hrs.
Design of physical and chemical unit processes and unit operations with an emphasis on water treatment. Design of aeration systems, coagulation and flocculation processes, sedimentation tanks, filtration systems, chemical precipitation processes, ion exchange processes, and disinfection processes. Advanced purification methods including adsorption, reverse osmosis, electro-dialysis, and membrane processes. Treatment and disposal of physiochemical process sludges. Prerequisite: CE 360.

CE 543  Advanced Waste Water Treatment  3 hrs.
Application of concepts from microbiology and biology to environmental engineering systems. Detailed integrated design of waste water treatment. Microbiology of waste water treatment processes and soil bioremediation processes. Interaction between biogeochemical phenomena and microbial processes in an environmental engineering context. Prerequisite: CE 360.

CE 546  Groundwater Hydrology  3 hrs.
Groundwater in the hydrological cycle, fundamentals of groundwater flow; flow net analysis; steady-state and transient well testing techniques for parameter estimation; multiple well systems; leaky aquifers; sea water intrusion;
groundwater investigation; artificial recharge of aquifers, design of wells; subsidence and lateral movement of land surface due to groundwater pumping. Design and computer applications. Prerequisites: CE 304.


CE 555 Sustainability and Environmental Regulations 3 hrs. Sustainability as it is expressed in environmental regulations and policies for conventional and hazardous wastes in air, water, and groundwater. Toxicological, risk assessment, risk-based engineering, and regulatory aspects for the sustainable management of all types of waste. Prerequisite: senior or graduate student.


CE 560 Advanced Structural Analysis 3 hrs. Direct stiffness method for the analysis of two-dimensional trusses and frames, equivalent nodal forces, thermal and settlement effects, principle of virtual work, space trusses, grid structures, static condensation, Lagrange multipliers, tapered elements. Prerequisites: CE 210, CE 359.

CE 562 Advanced Steel Design 3 hrs. Structural framing systems; rigid frame design; design of bracing; design of simple rigid and moment resisting connections; torsion of steel open sections; design of beams subjected to torsion; design of steel plate girders; design of composite beams. Prerequisite: CE 442.

CE 565 Advanced Concrete Design 3 hrs. Advanced topics in flexural design; torsion in beams; behavior and design of slender columns; biaxial bending of columns; design of two-way slabs; behavior and design of frame-wall structural systems; inelastic analysis of flexural members; use of strut and tie analysis; yield line analysis; design of mat foundations. Prerequisite: CE 403.

CE 567 Prestressed Concrete Design 3 hrs. Theory and analysis of prestressed concrete members by various methods of prestressing; design of simple and continuous beams and slabs; prestress losses; composite beams. Extensive study of materials used in prestressed concrete. Precast concrete systems. Prerequisites: CE 403; senior or graduate standing.

CE 570 Advanced Mechanics of Materials 3 hrs. Two- and three-dimensional stress and strain at a point; two-dimensional elasticity; beams on elastic foundations; torsion of noncircular sections; curved beams; unsymmetrical bending; plastic collapse and limit analysis. Prerequisites: CE 270.

CE 575 Structural Dynamics 3 hrs. Single degree of freedom systems; multi-degree of freedom systems; lumped mass and consistent mass—MDOF beams; free and forced vibrations; earthquake loading; impact and impulsive loads; numerical procedures. Prerequisites: CE 210, CE 359.


CE 580 Highway Safety 3 hrs. Safety aspects of streets and highways; planning, implementation, and evaluation of highway safety improvement projects and programs. Highway risk analysis and risk management systems. Prerequisite: senior or graduate standing.

CE 583 Geometric Highway Design 3 Application of standards, theory, and practice in design of streets and highways. Design of streets and highways including cross section elements, shoulder, and roadside features. Prerequisite: senior or graduate standing.

CE 584 Advanced Pavement Design 3 hrs. Advanced methods in pavement design: mechanistic empirical pavement design, performance models, overlay design, back calculation of layer moduli, perpetual pavement design. Prerequisites: CE 356, senior or graduate standing.

CE 586 Pavement Management Systems 3 hrs. Condition assessment of the infrastructure with emphasis given to pavement, deterioration modeling, engineering economics of payment systems, evaluation of project alternatives, optimization and ranking, sustainability, and strategic environment assessment for infrastructure decision-making. Prerequisite: CE 356.

CE 591 Special Topics I 1-3 hrs. Topics of special interest, which may vary each time course is offered. Topic stated in current Schedule of Classes. Prerequisite: senior or graduate standing.
CE 592  Special Topics II  1-3 hrs.
Topics of special interest, which may vary each time course is offered. Topic stated in current Schedule of Classes. Pre-requisite: senior or graduate standing.

Construction
The construction industry is large, varied, and complex. It is intimately interwoven with, and exerts significant influence on, the overall economy of our nation. Constructors— the modern construction professionals—are educated in engineering and architectural principles in the building process, allowing effective communication with the many persons with whom contact is necessary: the design professionals (engineers and architects), specialty subcontractors, manufacturers and distributors of construction materials and products, financiers and others. Additionally, and most importantly, the constructor is a manager. The constructor’s education must include the essentials of contemporary management philosophy, sound business and construction practice, and enlightened human relations. This multidisciplinary curriculum has been developed from these aims which are in consonance with the goals of the Associated Schools of Construction, and with the philosophy of the American Institute of Constructors.

The program described below was developed for the typical student interested in general preparation for a construction career. A minor in business administration or management is possible by careful selection of electives and a total of 131 semester hours.

The Bachelor of Science in Construction (BSC) degree requires a minimum of 127 approved semester hours. (Courses taken to remove deficiencies, e.g., MTH 109, MTH 110, and PHY 100, must be taken in addition to the approved 127 semester hours.)

Mission
Produce graduates who possess a keen awareness of the national and global dimensions of the construction industry, leadership skills required to serve our society, and the technical knowledge to pursue multiple career paths including advanced degrees. To achieve our mission, the Construction program will strive to achieve the following objectives:

1. Offer an ACCE-accredited program in Construction that promotes diversity and leadership and employs a systematic assessment process to insure that graduates possess the ability to excel in a wide range of construction careers.

2. Offer a Construction program that provides the academic environment needed to promote teamwork, communication skills, good citizenship, ethics, and public service so that graduates possess the needed knowledge and professionalism to be leaders in the construction industry and society.

3. Offer international programs to ensure that Construction graduates have the needed understanding of relevant global issues and other cultures in order to pursue careers overseas and thrive in our complex and multicultural world.
4. Pursue relevant and mutually beneficial partnerships with the construction industry to ensure that our graduates and faculty continue to benefit from and contribute to the professional community.

5. Offer a well-publicized reward system that values excellence in the traditional areas of teaching, scholarship, and service to ensure continued fulfillment and improvement of the Construction program and outcomes.

6. Promote research and scholarship activities that provide meaningful opportunities for students and faculty to participate in the development and application of new knowledge in Construction.

7. Secure the financial resources and facilities necessary to sustain the quality and distinctiveness of an imaginative Construction program that effectively responds to the needs of our profession in a changing world.

**Degree Requirements**

Accreditation criteria are met by the following groups of courses:

**Group I—General Education**
- ENG 101 English Composition .......................................... 3
- ENG 300, 301, 304, 305, or 306 Advanced Writing............... 3
- COM 103 Oral Communication Process .................................. 3
- Western Civilization .......................................................... 3
- Non-Western Civilization ............................................... 3
- Human Values ........................................................................ 3
- Fine Arts ............................................................................. 3

Minimum semester hours required for BSC Degree  21

**Group II—Mathematics and Science**
- MTH 115 or 121 Calculus I ................................................. 4
- MTH 116 or 122 Calculus II .................................................. 3, 4
- PHY 107 or 110 Physics I .......................................................... 3
- Computer Programming Elective ........................................... 3
- Science Elective ..................................................................... 4

Minimum semester hours required for BSC Degree  21

**Group III—Business Management**
- ECO 221 Microeconomics .................................................. 3
- ECO 222 Macroeconomics .................................................. 3
- ATG 157 Accounting-Financial .......................................... 3
- ATG 158 Accounting-Managerial ........................................ 3
- BMA 342 The Legal Environment of Business .................. 3
- BMA 352 Business Management ......................................... 3
- Business Electives .......................................................... 6

Minimum semester hours required for BSC Degree  24

**Group IV—Construction Science**
- CE 124 Emerging Technologies in CEC ......................... 2
- CON 132 Construction Graphics ......................................... 2
- CON 262 Mechanical and Electrical Systems ...................... 3
- CON 270 Materials and Methods of Construction ............... 3
- CON 487 Steel and Concrete .............................................. 3
- CON 489 Alternate Materials .............................................. 3
- CE 150 or IMT 222 Statics .................................................. 3
- CE 206 Surveying .................................................. 2
- CE 224 AutoCADD .................................................. 3
- CE 270 or IMT 324 Strength of Materials ......................... 3, 4
- CE 320 Introductory Soil Mechanics .................................. 3

Minimum semester hours required for BSC Degree  30-31

**Group V—Construction Management**
- CON 100 Introduction to Construction .................................. 1
- CON 342 Construction Equipment and Methods .................. 3
- CON 356 Construction Industry Safety Practices ................. 3
- CON 372 Construction Methods Improvement .................. 3
- CON 392 Construction Management .................................. 3
- CON 396 Construction Estimating ....................................... 3
- CON 492 Construction Contracts ......................................... 2
- CON 493 Senior Project Planning ......................................... 1
- CON 498 Senior Project Planning ......................................... 3

Minimum semester hours required for BSC Degree  22

8Elective (Group 4 or 5) .......................................................... 12

Minimum semester hours required for BSC Degree  127

**Areas of Emphasis**

Students may choose to take their electives in one of the following areas of emphasis.

**Internationalization**

Students take two courses through the CEC Department Global Explorer Program and/or Bradley’s Study Abroad program and take an approved semester abroad.

**Sustainability**

Students take four courses, chosen from:
- CON 272 Materials and Methods of Construction II
- CON 368 Advanced Environmental Technologies in Construction
- CE 555 Environmental Regulations and Policy
- ME 537 Building Energy Management

(Note: additional options will become available.)

**Infrastructure**

Students take four courses, chosen from:
- BMA 395 Real Estate Principles
- CE 303 Materials Laboratory
- CE 356 Pavement Design
- CE 580 Highway Safety and Risk Management
- CE 586 Pavement Management Systems
- CON 352 Urban Environment
- ECO 325 Urban Economics

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3See Gen. Ed. list in the Schedule of Classes each semester.

2Electives must be chosen from list available from the academic advisor.
Typical Curriculum

Freshman Year
First Semester
CON 100 Introduction to Construction ..................................................3
ECO 221 Microeconomics ....................................................................3
MTH 115 or MTH 121 Calculus I ..........................................................4
ATG 158 Accounting-Managerial .........................................................3
General Education—Western Civilization ..............................................3
Science Elective ....................................................................................4

Second Semester
CON 132 Construction Graphics ........................................................2
ENG 101 English Composition ............................................................3
MTH 116 or MTH 122 Calculus II .........................................................3-4
PHY 107 or Physics 110 .........................................................................4
CS Programming Elective ....................................................................3
CE 124 Emerging Technologies ........................................................2

Sophomore Year
First Semester
CE 150 Mechanics I or IMT 222 Statics ................................................3
ECO 221 Microeconomics ....................................................................3
ATG 157 Accounting—Financial ..........................................................3
CON 270 Materials and Methods of Construction ..............................3
CE 206 Surveying ................................................................................2
CE 224 AutoCADD ..............................................................................3

Second Semester
CE 270 Mechanics of Materials or IMT 324 Strength of Materials .........4
ECO 221 Macroeconomics ..................................................................3
ATG 158 Accounting-Managerial .........................................................3
CON 262 Mechanical & Electrical Systems for Buildings ..................3
General Education—Human Values ....................................................3

Junior Year
First Semester
1 ENG 300, 301, 304, 305, or 306 Advanced Writing .......................3
CON 342 Construction Equipment and Methods ...............................3
CON 372 Construction Methods Improvement ..................................3
BMA 342 The Legal Environment of Business ..................................3
Construction or Construction Science Elective .....................................3

Second Semester
CON 356 Construction Safety ............................................................3
CON 392 Construction Scheduling ......................................................3
BMA 352 Business Management .........................................................3
CON 396 Construction Estimating ......................................................3
CON 320 Intro. to Soil Mechanics .......................................................3
CON 492 Construction Contracts .......................................................2

Senior Year
First Semester
CON 493 Senior Project Planning .......................................................1
General Education—Fine Arts .............................................................3
CON 487 Steel and Concrete Structures .............................................3
General Education—Non-Western Civilization ....................................3
Construction or Construction Science Elective ....................................3
Management Elective .........................................................................3

Second Semester
CON 498 Senior Project .....................................................................3
CON 489 Alternative Material Structures ............................................3
Construction or Construction Science Elective ....................................3
Construction or Construction Science Elective ....................................3
Management Elective .........................................................................3

Total Hours 127-128

Course Descriptions
CON 100 Introduction to Construction 1 hr.
Introduction to the construction profession. Computer applications, problem solving concepts, design concepts and visualization, industry ethics, professional societies, and university services

CON 132 Construction Graphics 2 hrs.
Symbols, conventions, and details of construction drawings. Emphasis on interpretation and communication of requirements of contract drawings.

CON 200 Engineering Co-op 0 hrs.
Full-time cooperative education assignment for construction students who alternate periods of full-time school with periods of full-time academic or career-related work in industry. Satisfactory/Unsatisfactory. Prerequisites: Sophomore standing in the College of Engineering and Technology, 2.0 overall grade point average at Bradley, approval of engineering and technology Co-op coordinator and Co-op faculty advisor.

CON 262 Mechanical and Electrical Systems for Buildings 3 hrs.
Survey of basic principles, methods, and equipment for building component systems related to human health and comfort. Introduces psychrometric chart, building heating systems, electrical systems, plumbing. Prerequisite: CON 132.

CON 270 Materials & Methods of Construction 3 hrs.
Characteristics and use of basic construction materials; introduction to materials specifications.

CON 272 Materials & Methods of Construction II 3 hrs.
A study of materials and techniques of construction used in structural frames of wood, steel, and concrete; consideration of foundation, asphalt, and advanced interior construction methods. Prerequisite: CON 270
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
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<tbody>
<tr>
<td>CON 320</td>
<td>Introductory Soil Mechanics</td>
<td>3 hrs.</td>
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<tr>
<td></td>
<td>Introduction to soil mechanics and foundation construc</td>
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<td>tion for non-CE majors. Soil index properties, clas</td>
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<td>sification, stress analysis, soil compaction, dewater</td>
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<td>ing, excavations, and foundation construction. Prere</td>
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<td>quisites: IMT 324 or CE 270; construction major.</td>
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<tr>
<td>CON 330</td>
<td>Housing</td>
<td>3 hrs.</td>
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<td>Planning residential areas: geographic location, or</td>
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<td>ientation, functions, and interrelationships of fun</td>
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<td>ctions. Fundamentals of residential design which ca</td>
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<td>n result in quality living environments for all inc</td>
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<td>ome levels. Prerequisite: junior standing.</td>
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<tr>
<td>CON 342</td>
<td>Construction Equipment &amp; Methods</td>
<td>3 hrs.</td>
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<tr>
<td></td>
<td>Characteristics of contractor plant and construction</td>
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<td>equipment; methods for their efficient use. Prerequi</td>
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<td>site: junior standing in College of Engineering and</td>
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<td>Technology.</td>
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<td>CON 352</td>
<td>Urban Environment</td>
<td>3 hrs.</td>
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<tr>
<td></td>
<td>Principles of land utilization and other elements re</td>
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<td>lated to planning and developing quality urban envir</td>
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<td>onments. Prerequisite: junior standing.</td>
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<td>Design of a safety program, risk analysis of a compa</td>
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<td>ny's home office and field safety performance chara</td>
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<td>cteristics, potential problems, contingency planning</td>
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<td></td>
<td>, and safety audit analysis. Prerequisites: CON 270</td>
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<tr>
<td>CON 368</td>
<td>Advanced Environmental Technologies in Construction</td>
<td>3 hrs.</td>
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<tr>
<td></td>
<td>Survey of large scale integrated building component s</td>
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<td>ystems related to human health and comfort. Topics i</td>
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<td></td>
<td>nclude lighting, electrical design and layout, verti</td>
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<td>cal transportation, alarm and security systems, fire</td>
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<td>protection, total space conditioning, water treatment</td>
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<td>and sewage treatment, industrial piping design. Prere</td>
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<td>quisite: CON 262.</td>
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<tr>
<td>CON 372</td>
<td>Construction Methods Improvement</td>
<td>3 hrs.</td>
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<tr>
<td></td>
<td>Principles and methods for selection and installation</td>
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<td>of materials assemblies used in construction; indu</td>
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<td>strialized and systems building; methods improvements</td>
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<td>. Prerequisite: CON 270.</td>
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<tr>
<td>CON 392</td>
<td>Construction Scheduling</td>
<td>3 hrs.</td>
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<tr>
<td></td>
<td>Economic considerations and tools of management: cost</td>
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<td>reporting; scheduling. Emphasis on network methods o</td>
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<td>f scheduling: resource allocation and least-cost exp</td>
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<td></td>
<td>editing. Computer aided. Prerequisite: junior standi</td>
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<td>ng in College of Engineering and Technology.</td>
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<td>CON 394</td>
<td>Construction Labor and Unions</td>
<td>3 hrs.</td>
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<td>Union and non-union activities in construction indus</td>
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<td>try; analysis, organizing, bargaining, contract lan</td>
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<td>guage, jurisdictional disputes, training, and restric</td>
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<td>tions on operating non-union. Prerequisite: junior s</td>
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<td>tanding.</td>
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<tr>
<td>CON 395</td>
<td>Construction Claims &amp; Change Orders</td>
<td>3 hrs.</td>
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<td>Record keeping and quantitative skill necessary for c</td>
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<td>hange orders and claims presentation or preparation.</td>
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<td>Prerequisite: junior standing in College of Engineer</td>
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<td>ing and Technology.</td>
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<tr>
<td>CON 396</td>
<td>Construction Estimating</td>
<td>3 hrs.</td>
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<tr>
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<td>Material, equipment, and labor estimates of construc</td>
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<td>tion projects. Includes laboratory. Prerequisites: C</td>
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<td>ON 132.</td>
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<td>CON 409</td>
<td>Special Topics</td>
<td>1-4 hrs.</td>
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<td>Supervised individual study of special construction t</td>
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<td>opics. Prerequisite: consent of department chair.</td>
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<tr>
<td>CON 487</td>
<td>Steel and Concrete Structures</td>
<td>3 hrs.</td>
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<tr>
<td></td>
<td>Introduction to structural analysis and design of ste</td>
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<td>el and reinforced concrete members; application to c</td>
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<td>onstruction problems. Prerequisites: MTH 116 or 122;</td>
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<td></td>
<td>CE 270 or IMT 324.</td>
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<td>CON 489</td>
<td>Alternate Materials Structures</td>
<td>3 hrs.</td>
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<td>Introduction to structural analysis and design of ti</td>
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<td>mber and other structural materials such as masonry.</td>
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<td>Application to industry problems in bracing, formwor</td>
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<td>k, and temporary excavation supports. Prerequisites:</td>
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<td>MTH 116 or 122; CE 270 or IMT 324.</td>
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<td>CON 492</td>
<td>Construction Contracts</td>
<td>2 hrs.</td>
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<td>Project manual concept; emphasis on Uniform System f</td>
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<td>or Construction Specifications, general conditions o</td>
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<td>f construction contracts, bidding requirements, and r</td>
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<td>ole of inspection in construction operations. Prereq</td>
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<td>uisites: senior standing in College of Engineering a</td>
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<td>nd Technology.</td>
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<tr>
<td>CON 493</td>
<td>Senior Project Planning</td>
<td>1 hr.</td>
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<td>First of a two-semester course design project sequen</td>
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<td>ce. With faculty aid, students work in teams to plan</td>
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<td>the solution of a project assigned to them in their a</td>
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<td>rea of interest. Oral and written report of prelimina</td>
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<td>ry plan. Prerequisites: senior standing in construc</td>
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<td>tion; consent of department chair.</td>
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<tr>
<td>CON 494</td>
<td>Advanced Construction Practices</td>
<td>3 hrs.</td>
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<td>Construction ethics; responsibilities and professional</td>
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<td>m advanced areas of business practices in construc</td>
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<td>tion. Prerequisites: CON 392, 492; or consent of in</td>
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<td>structor.</td>
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<tr>
<td>CON 498</td>
<td>Senior Project</td>
<td>3 hrs.</td>
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<td>Application of construction principles to industry p</td>
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<td>rojects. Prerequisites: CON 493.</td>
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<tr>
<td>CON 520</td>
<td>Construction and Engineering Practice</td>
<td>3 hrs.</td>
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<td>Issues of the processes affiliated with the construc</td>
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<td>tion and engineering consulting profession: project</td>
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<td>delivery, conception through construction of projects</td>
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<td>, phases of design, and unique challenges. Case studi</td>
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<td>es will be utilized. Prerequisites: senior or gradu</td>
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<td>ate standing.</td>
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<tr>
<td>CON 522</td>
<td>Advanced CADD</td>
<td>3 hrs.</td>
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<tr>
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<td>Applications of CAD systems. Visualization and optimi</td>
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<td>zation of the processes used in construction through</td>
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<td>three-dimensional modeling and utilization in various</td>
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<td>civil engineering and construction applications. Pre</td>
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<td>quisites: CE 224 or consent of department chair.</td>
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</tbody>
</table>
CON 524 Building Information Modeling 3 hrs.
Application of state-of-the-art technology in projects during various phases from inception to completion including planning, design, procurement, construction, handing over, and operation and maintenance. Investigation of different available tools and technologies in recording, storing, and sharing project information. Prerequisites: senior or graduate standing in the College of Engineering and Technology.

CON 526 Advanced Cost Estimating 3 hrs.
Advanced techniques in taking-off quantities, pricing techniques, computer estimating, and bidding strategy models. Prerequisite: CON 396 or consent of department chair.

CON 528 Advanced Scheduling 3 hrs.
Project scheduling methods with emphasis on network scheduling techniques, work breakdown structure (WBS), resource and cost loading, scheduling under uncertainties, project time compression, resource leveling, scheduling for linear projects (LOB), time-cost trade-offs, project status, reporting and updating, schedules as tools for claims documentation. Case studies. Computer based. Prerequisites: CON 392 or consent of department chair.

CON 529 Advanced Contracts 3 hrs.
Issues in the administration and implementation of a construction contract. Coordinating and controlling the construction project under legal and ethical considerations. Prerequisites: CON 492 or consent of department chair.

CON 536 TQM Principles 3 hrs.
Theory and analysis of the Total Quality Management system as applied within the construction industry. Case studies. Prerequisites: QM 262, CE 310, or IME 311 or consent of department chair.

CON 537 Construction Simulation 3 hrs.
Decision making using simulation and simulation languages to model construction operations. Simulation of construction process using what-if analysis. Role of simulation and decision making in the planning and scheduling phases in the construction industry. Topics include introduction to discrete event simulation, generation of random numbers, queuing, simulation languages for construction. Prerequisites: QM 262, CE 310, or IME 311 or consent of department chair.

CON 540 Project and Company Management 3 hrs.
Unique issues of company and project management in the construction industry not traditionally found in construction programs, such as fraud, regulatory issues, and international construction. Presentations on project and company management by renowned experts will give the student knowledge and insights on new trends, innovative procedures, practical case studies, and exposure to innovation in construction. The course will give the student knowledge of the business aspects of running a wide range of construction companies and a variety of projects. Prerequisite: senior or graduate standing.
The baccalaureate program in electrical engineering is accredited by the Engineering Accreditation Commission of the Accreditation Board for Engineering and Technology, 111 Market Place, Suite 1050, Baltimore, MD 21202-4012 - telephone (410) 347-7700.

FACULTY  Professors Anakwa, Shastry; Associate Professors Ahn, Dempsey, Huggins (chair), Irwin, Malinowski, V. Prasad; Assistant Professors Lu, Schipper; Temporary Assistant Professor Gutschlag; Instructors Sanchez.

The department offers degree programs in electrical engineering (B.S.E.E. and M.S.E.E.) and electrical engineering with computer option (B.S.E.E.). It takes special pride in the particularly close student-faculty relationships it has developed over the years. Entrance requirements can be obtained by contacting the chair of the ECE department.

Educational Objectives and Department Mission
Society has been transformed dramatically by the widespread use of electrical and electronic devices and systems and it is certain that even more dramatic changes are in store. These changes are fast paced and are driven by electrical and computer engineers working in many different areas including bioengineering, communications, computers, controls, electronics, microprocessors, integrated circuits, signal and information processing, wireless components and systems, and software development. The engineering process is complex and practitioners perform many roles such as research, design, development, product application, manufacturing, and system integration as well as marketing, sales and management. Bradley electrical engineering graduates have been involved in all of these endeavors, and it is the goal of the Bradley ECE program to continue to educate the next generation of electrical and computer engineers to meet the challenges of the future.

In this dynamic profession, the Bradley ECE faculty recognize that each career path is unique, based on the individual’s particular ambitions, capabilities and interests. By coupling the focus on undergraduate education and depth of faculty expertise with the small student-to-faculty ratio and design project sequence, the ECE faculty can respond to the needs and interest of each student in the electrical engineering program. However, the ECE faculty also recognize that there are common elements to success in the profession. These are the ability to acquire, generate, and use new knowledge; the ability to complete complex electrical engineering projects; and the experience, knowledge, skills and capabilities to progress professionally. These common elements for success in the electrical engineering profession are the basis for the educational objectives of the program. These objectives are as follows.

1. Each graduate from the program will demonstrate the ability to acquire, apply, and synthesize new knowledge as required for success.
2. Each graduate from the program will be productive, demonstrate professional growth, and assume increasing responsibility or obtain an advanced degree in the first several years after graduating from the program.
3. A significant number of graduates will contribute to the profession or obtain leadership positions.

In order to meet these objectives, students graduating from Bradley’s electrical engineering program will achieve the following outcomes.

i) A graduate from the program will demonstrate knowledge of the mathematical and scientific foundation of electrical engineering.

ii) A graduate from the program will demonstrate knowledge of and the ability to apply techniques and technology of electrical engineering.

iii) A graduate from the program will complete a design project sequence, culminating in a capstone project at or near the professional level.

iv) A graduate from the program will demonstrate the ability to acquire new knowledge as needed for success in the electrical engineering profession.

v) A graduate from the program will meet Bradley’s general education requirements, which are based on the principles of liberal education.

vi) A graduate from the program will have experience in communicating technical information and working on teams.

vii) A graduate from the program will understand the importance of professional and ethical behavior.

It is the mission of the ECE Department to provide the intellectual and physical environment in which students achieve these outcomes. The intellectual component of this environment is supplied by the ECE faculty members,
in their roles as mentors, advisors, and engineering professionals, as well as by the curriculum they establish for the programs. The physical component consists of quality facilities equipped with modern instrumentation, components, computers, and software.

**Curriculum**

The electrical engineering program, including the computer option, consists of several curricular components that give the student the opportunity to build a solid foundation of basic physical principles and obtain experience in design as well as insight into the profession and practice of electrical engineering. The lecture sequence consists mostly of required core courses through which the student learns about and acquires problem solving and/or design skills in circuit analysis, programming in C++, analog and digital electronics, microprocessors, signals and systems, and electromagnetic fields. Furthermore, through elective courses in the last two semesters, the student can specialize in areas such as applied electromagnetics, communications, controls, digital signal processing, digital and computer systems, electromechanical systems, embedded systems, medical imaging, and wireless components and systems. For a student in the computer option, the electives must be in the digital area (see computer option in Programs of Study section.)

Though many design techniques are taught in the lecture courses, the student learns the practice of electrical engineering design primarily through the 15-hour laboratory and project sequence.

The lab courses integrate material from the lecture courses and are taught by experienced faculty members. In addition, small numbers of students allow for close interaction with the instructor. Furthermore, the laboratory facilities and equipment are modern and readily accessible. Many of the lecture courses and all of the lab courses require the use of computers as well as the oral and/or written presentation of technical material.

Several aspects of design are taught in the sophomore and junior labs (EE 206, EE 331, and EE 332). The student's design experience in these courses includes synthesis to meet specifications, analysis, construction, testing, and evaluation with respect to specifications. Furthermore, the sophomore and junior design projects associated with these courses are particularly valuable and establish the foundation of the design project sequence. In addition to the implementation steps described above, the projects also require the formulation of design problem statements and criteria, the consideration of alternative solutions, and system descriptions.

The design project sequence culminates in the fourth year with the electronic product design project and the senior capstone project. The electronic product design is completed in the first half of the fall semester in EE 450 (Electronic Product Design.) The student works with a partner to design and implement a microprocessor-based system meeting particular specifications and requiring hardware design, software development, and laboratory work. The student then builds on this experience in EE 402 (Senior Design Seminar) during the spring semester. In this course, the student works on a multidisciplinary team to prepare a business plan delineating the development of a venture based on an electronic product. The student also explores other aspects of engineering in EE 402 and, through the process, gains a broader view of the engineering profession.

Work on the senior capstone project begins at the start of the fall semester and the primary deliverables for the semester are to:

- choose a senior project and ECE faculty advisor,
- develop a detailed functional description of the project,
- develop a detailed system block diagram of the project and description of its operation,
- initiate experimental work,
- present a proposal covering a design and an implementation plan for the project, and
- establish a web page for the project.

In addition to the effort on the capstone project, the seniors work on teams to review and analyze the deliverables for other senior projects. Lab work associated with the capstone senior project starts in the last half of the fall semester in EE 451 and is completed in EE 452 the following semester.

The senior capstone project is a major educational component of the program. It involves the student in design at or near the professional level and requires the formulation of design specifications, consideration of alternative solutions, feasibility considerations, time management, allocation of design responsibilities, and detailed system documentation. Project advising is done on a distributed basis with the student choosing his/her project advisor from among the members of the ECE faculty.

The electrical engineering program, including the computer option, also requires the student to complete a 12-hour professional elective stem. This stem allows the student to take a coherent set of courses so as to enhance the student's competitiveness in the job market or better prepare for graduate or professional school. For example, the student can use the professional electives to obtain business skills by taking courses offered by the Foster College of Business Administration. Also, no more than 6 hours of EE courses can be applied toward the 12 hours of the professional elective stem. Additional information is available in an advising handout. The student must work with an academic advisor to identify the courses he/she will use to satisfy the professional elective stem and fill out the Professional Elective Approval Form. This form must be signed by the ECE Chairman and the courses approved to fill the professional elective stem constitute a requirement for the BSEE degree for the student.

In addition to the technical part of the program described above, the student must also meet the University
General Education requirements (see “Academic Regulations” in this catalog.) As part of the General Education requirement, the student gains effective communication skills via introductory and advanced English composition and a speech course. The General Education requirements also provide the foundation for a liberal education, which helps the student understand and participate in society as a responsible human being. Courses include Western Civilization (CIV 100, CIV 101, or CIV 102), Introduction to Economics (ECO 100), as well as selections from non-western civilization, social forces, human values, and fine arts. For these last four categories, the student chooses from a list of approved courses.

A wide range of career opportunities is available to the electrical engineering graduate in many different technical areas and industries. For those who wish to continue their professional studies, details of the M.S.E.E. program are given in the Bradley University Graduate Catalog.

Professional and Personal Growth

The electrical engineering lecture courses and lab/project sequence prepare students very well for success as design engineers in the electrical and computer engineering profession. The ECE faculty also urges students to participate in activities and take courses that promote professional growth. It is strongly recommended that students join the Bradley Student Branch of the Institute of Electrical and Electronic Engineers (IEEE). The IEEE is the world’s leading professional association for the advancement of technology and promotes professional development through various activities. In addition, students are advised to consider experiential education such as the co-op program. Finally, students can choose their general education courses and professional electives to put a distinctive stamp on their programs of study. For example, they can seek a minor appropriate to career goals or participate in a study abroad program. (Note that certain minors and study abroad program will add hours and/or time to the normal eight-semester, 130-hour program of study.)

In addition to professional development, students are urged to participate in a variety of activities and organizations to enhance personal growth. Employers like individuals who are well rounded and can effectively interact with different people. Bradley offers a wide range of experiences and, in the past, electrical engineering students have participated in many activities and organization such as intramurals, service groups, sport clubs, study abroad, theatre, tutoring, various Bradley musical groups, and volunteer activities. A complete list of registered student organizations is listed in this catalog in the Student Activities section.

### Programs of Study

#### Electrical Engineering

Credit in the following courses must be obtained to meet degree requirements in electrical engineering, leading to the Bachelor of Science in Electrical Engineering.

**Freshman Year**

*First Semester*

- EE 101 Intro. Electrical Engineering ................................. 1
- EE 102 Computer and Programming in EE ....................... 2
- MTH 121 Calculus I .......................................................... 4
- CHM 110 General Chemistry I ........................................... 3
- CHM 111 General Chemistry I Lab .................................... 1
- ENG 101 English Composition ......................................... 3
- Gen. Ed. – CIV 100, 101, or 102 Western Civilization ....... 3
- or ECO 100 Intro. to Economics ....................................... 3


#### Second Semester

- COM 103 Oral Communication Process ............................ 3
- MTH 122 Calculus II ....................................................... 4
- PHY 110 University Physics I ........................................... 4
- Gen. Ed. – Fine Arts ....................................................... 3
- Gen. Ed. – ECO 100 Intro. to Economics ......................... 3
- or CIV 100, 101, or 102 Western Civilization ....... 3


#### Sophomore Year

*First Semester*

- EE 201 Digital Hardware Organization ........................... 2
- EE 205 Fundamentals of Circuit Analysis .......................... 4
- EE 221 Data Structures and OOP ..................................... 3
- MTH 223 Calculus III ...................................................... 4
- PHY 201 University Physics II .......................................... 4


#### Second Semester

- EE 206 Sophomore Laboratory ......................................... 2
- MTH 207 Elementary Linear Algebra with Applications ....... 3
- MTH 224 Differential Equations ....................................... 4
- PHY 202 Applied Quantum Physics ................................. 3
- Gen. Ed. – Social Forces .................................................. 3


#### Junior Year

*First Semester*

- EE 301 Signals & Systems I ............................................. 3
- EE 303 Principles of Electronics I .................................... 3
- EE 365 Microprocessors .................................................. 3
- EE 331 Junior Laboratory I ............................................. 3
- ENG 300, 301, 305, or 306 Advanced Writing .................. 3
Electrical Engineering with Computer Option

The demand for and continuing advances in computers and digital systems have created opportunities for professionals capable of not only designing computer systems but also applying these systems to a broad range of applications. Such fields as communications, automatic control, robotics, and signal processing have benefited greatly from developments in the digital area. Additionally, the development of modern computers requires a thorough understanding of the methodologies of software and hardware design.

The department offers an option to students desiring to specialize in this branch of electrical engineering and it requires students to take 23 semester hours of course work in the digital area. The required courses are digital hardware organization (EE 101 and EE 201), computational techniques for electrical engineering (EE 102), data structures and object-oriented programming (EE 221), and microprocessors (EE 365). Four EE electives must also be taken in the digital area which includes courses such as digital image processing (EE 533), digital signal processing (EE 534), neural networks (EE 535), logic design (EE 561), computer structures (EE 562), VLSI design (EE 563), microprocessor and PC architecture (EE 565), memory and interfacing (EE 566), and VHDL (EE 568). Also special topic courses are frequently offered that are EE digital electives. Finally, one of the EE digital electives must include coverage of computer architecture (EE 562, EE 565, EE 566, or EE 568). See your advisor for a current list of approved EE digital electives.

Students in the option are also required to complete a 12-hour professional elective stem. As previously discussed, this stem allows the student to take a coherent set of courses so as to enhance the student’s competitiveness in the job market or better prepare for graduate or professional school. No more than 6 hours of EE courses can be applied toward the 12 hours of the professional elective stem. Additional information is available in an advising handout. The student must work with an academic advisor to identify the courses he/she will use to satisfy the professional elective stem and fill out the Professional Elective Approval Form. This form must be signed by the ECE Chairman and the courses approved to fill the professional elective stem constitute a requirement for the BSE degree for the student.

The computer option of electrical engineering differs from the regular program in that it requires four EE digital electives. It is also expected that the students in the option focus their project work in the digital area. Credit in the following courses must be obtained to meet degree requirements in the computer option of electrical engineering, leading to the Bachelor of Science in Electrical Engineering.

Freshman Year

First Semester

EE 101 Intro. Electrical Engineering .............................................. 1
EE 102 Computational Techniques for EE .................................. 2
MTH 121 Calculus I ........................................................................ 4
CHM 110 General Chemistry I ................................................... 3
CHM 111 General Chemistry I Lab ............................................. 1
ENG 101 English Composition ................................................... 3
Gen. Ed.—CIV 100, 101, or 102 Western Civ. or 1
ECO 100 Intro. to Economics .................................................. 3

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Second Semester

COM 103 Oral Communication Process ..................................... 3
MTH 122 Calculus II ................................................................. 4
PHY 110 University Physics I .................................................... 4
Gen. Ed.—Fine Arts ................................................................. 3
Gen. Ed.—ECO 100 Intro. to Economics 1
or CIV 100, 101, or 102 Western Civilization .......................... 3

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* General education courses must be selected from an approved list for each category. They may be taken in any sequence, not necessarily in the semester indicated. Other university general education requirements are satisfied by specific courses required above.

* Four EE electives are required and one must be from the control stem (EE 430, 431, or 432). A list of approved courses is available from your academic advisor.

* Four EE digital electives are required and one must include coverage of computer architecture (EE 562, 565, 566, or 568). A list of approved courses is available from your academic advisor.
Sophomore Year
First Semester
EE 201 Digital Hardware Organization ........................................2
EE 205 Fundamentals of Circuit Analysis ........................................4
EE 221 Data Structures & Object-Oriented Programming .............3
MTH 223 Calculus III .................................................................4
PHY 201 University Physics II ..................................................4

Second Semester
EE 206 Sophomore Laboratory ..................................................2
MTH 207 Elementary Linear Algebra with Applications ..............3
MTH 224 Differential Equations ................................................4
PHY 202 Applied Quantum Physics ...........................................3
Gen. Ed. - Social Forces ...........................................................3

Junior Year
First Semester
EE 301 Signals & Systems I ..........................................................3
EE 303 Principles of Electronics I ...............................................3
EE 365 Microprocessors ............................................................3
EE 331 Junior Laboratory I .........................................................3
ENG 300, 301, 305, or 306 Advanced Writing .........................3

Second Semester
EE 302 Signals and Systems II ....................................................3
EE 304 Principles of Electronics II .............................................3
EE 332 Junior Laboratory II .......................................................2
EE 381 T-Lines and EM Fields ..................................................3
Approved Professional Elective ...............................................3
Gen. Ed. – Human Values ..........................................................3

Senior Year
First Semester
EE 450 Electronic Product ..........................................................1
EE 451 Senior Capstone Project I ................................................3
EE Digital Electives .................................................................6
Approved Professional Electives ...............................................6

Second Semester
EE 402 Senior Design Seminar ..................................................1
EE 452 Senior Capstone Project II ..............................................3
EE Digital Electives .................................................................6
Approved Professional Elective ...............................................3
Gen. Ed. – Non-Western Civilization .........................................3

Total Hours 130

Elective Descriptions
EE electives are available in the areas of applied electromagnetics, communications, controls, digital signal processing, digital and computer systems, embedded systems, wireless components and systems and VLSI design. Approved EE electives include all 400- and 500-level EE courses except for EE 450, EE 451, and EE 452. Special topic courses are often available. See your advisor for the most current list of approved electives.

EE digital electives include:
- EE 533 Digital Image Processing
- EE 534 Digital Signal Processing
- EE 535 Engineering Applications of Neural Networks
- EE 561 Digital Systems: Logic Design
- EE 562 Digital Systems: Computer Structures
- EE 563 Advanced Electronics VLSI System Design
- EE 565 Digital Systems: Microprocessor & PC Architecture
- EE 566 Digital Systems: Memory and Interfacing
- EE 567 Advanced VLSI
- EE 568 VHDL
- Special Topics: Object Oriented Programming for Embedded Systems
- Special Topics: Web-Based Control
- Special Topics: RTOS and C for Embedded Systems
- Special Topics: Network Programming for Embedded Systems
- Other special topics courses may also be approved. See your advisor for the most current list.

Professional electives allow the student to take a coherent set of courses so as to enhance the student’s competitiveness in the job market or better prepare for graduate or professional school. They can also be applied toward a minor or second major. (Note that certain minors and majors will add hours and/or time to the normal 8-semester, 130-hour program of study.) However, no more than 6 hours of EE courses can be applied toward the 12 hours of the professional elective stem. Additional information is available in an advising handout. The student must work with an academic advisor to identify the courses he/she will use to satisfy the professional elective stem and fill out the Professional Elective Approval Form. This form must be signed by the ECE Chairman and the courses approved to fill the professional elective stem constitute a requirement for the BSEE degree for the student.
Course Descriptions

EE 101 Introductory Electrical Engineering 1 hr.
Introductory course focusing on logic design on the following topics: fundamentals of Boolean algebra and minimization techniques, combinational logic realizations of SOP and POS functions, multiple function synthesis using PLDs. In addition, students view various presentations of significant historical electrical engineers and topics.

EE 102 Computers and Programming in Electrical Engineering 2 hrs.
Introduction to computers and operating systems; introduction to programming in a high level language appropriate to electrical engineering.

EE 200 Engineering Co-op 0 hrs.
Full-time cooperative education assignment for electrical engineering students who alternate periods of full-time school with periods of full-time academic or career-related work in industry. Satisfactory/Unsatisfactory. Prerequisites: Sophomore standing in the College of Engineering and Technology, 2.0 overall grade point average at Bradley, approval of engineering and technology Co-op coordinator and Co-op faculty advisor.

EE 201 Digital Hardware Organization 2 hrs.
Continuation of EE 101 focusing on the following topics: sequential circuit elements, flip flops, counters and shift-registers, clock generation circuits, algorithmic state machine method of designing sequential circuits, and VHDL design and synthesis. Prerequisite: EE 101.

EE 205 Fundamentals of Circuit Analysis 4 hrs.

EE 206 Sophomore Laboratory 2 hrs.
The student is introduced to experimental implementation of analysis techniques developed in EE 205 and EE 201/311 in order to verify circuit theory. In addition the student is introduced to the design of analog and digital circuits focusing on top-down design methodology culminating in a student-chosen sequential digital design project. Prerequisites: EE 205, with a minimum grade of C. Corequisites: EE 201 or EE 311.

EE 221 Data Structures and Object-Oriented Programming 3 hrs.
Introduction to data structures, object-oriented programming and abstract data types for programmers; data structures: arrays, vectors, lists, stacks, and queues; dynamic memory allocation; problems of efficiency and complexity of algorithms; searching and sorting; standard libraries dedicated to data structures and algorithms. Prerequisite: EE 102 or CS 106 with minimum grade of C.

EE 301 Signals and Systems I 3 hrs.
Time and frequency domain analysis of linear systems. Lumped, distributed, time-varying, and discrete-time systems; network topology, state variable techniques; stability. Prerequisite: EE 206; EE or EEC major.

EE 302 Signals and Systems II 3 hrs.
Sampling theorem, digital filters, probability theory, statistics, random variables, probability density functions, auto- and cross-correlation functions, power spectral density of random processes, analysis of linear time invariant systems with random inputs in time domain and in frequency domain, simulation of random experiments. Prerequisite: EE 301.

EE 303 Principles of Electronics I 3 hrs.
Circuit analysis and design of macro-electronic circuits using operational amplifiers, diodes, and logic gates. Design process covering top-down methods and software simulation. Prerequisites: EE 206; EE or EEC major.

EE 304 Principles of Electronics II 3 hrs.
Modeling of discrete bipolar and field effect transistors. Circuit analysis and design of macro-electronic circuits using discrete bipolar and field effect transistors. Design process covering top-down methods and software simulation. Prerequisite: EE 303 with minimum grade of C.

EE 305 Digital Hardware Organization 3 hrs.
Introduction to logic design with focus on the following topics: fundamentals of Boolean algebra and minimization techniques, combinational logic realizations of SOP and POS functions, multiple function synthesis using PLDs, combinational circuit design as it applies to computers, sequential circuit elements, flip flops, counters and shift-registers, clock generation circuits, algorithmic state machine method of designing sequential circuits, and VHDL design and synthesis. Not open to students with credit in EE 101 or EE 201.

EE 306 Fundamentals of Electrical Engineering I 3 hrs.
Analysis of circuits; transient and steady state phenomena; general analysis techniques. Open to non-electrical engineering students only. Prerequisite: MTH 224.

EE 307 Fundamentals of Electrical Engineering II 3 hrs.
Electronics; magnetic fields and circuits; magnetic coupling; energy conversion; electromechanics; rotating devices; digital techniques; control systems. Prerequisite: EE 307.

EE 308 Junior Laboratory I 3 hrs.
The student performs top-down design and analysis of analog and digital electronic circuits. Integral to the design work is the use of software programs, and software simulation packages are used to verify their design. In addition, students develop hardware and software troubleshooting and testing skills. The design experience culminates in a multi-week task that requires the students to integrate information from EE 205, EE 206, and EE 303 to synthesize a multi-faceted, specification-driven project. Prerequisites: EE 206 with a minimum grade of C; EE or EEC major. Corequisites: EE 303, EE 365.
EE 332 Junior Laboratory II 2 hrs.
Junior Laboratory II is a continuation of EE 331. In addition to the usual design efforts, a directed, microcomputer-based, multi-week task challenges the students to use a microcontroller in a project. The students' experience culminates in a multi-week, student-chosen project that showcases their design abilities. Prerequisites: EE 301, EE 303, EE 331, EE 365 each with a minimum grade of C. Corequisites: EE 302, EE 304, EE 381.

EE 365 Microprocessors 3 hrs.
Design of microprocessor-based systems applied to real situations; control and data acquisition. Programming practice on commercial microprocessors. Prerequisite: EE 201 or EE 311; EE 221 with a minimum grade of C.

EE 381 Transmission Lines and Electromagnetic Fields 3 hrs.
Time-harmonic steady-state and transient analysis of radio frequency (RF) transmission lines (T Lines); impedance matching; the Smith chart and its applications; vector analysis; static electric fields and capacitance; steady currents and resistance; static magnetic fields and inductance; electrical and magnetic properties of materials; electric and magnetic boundary conditions; electric and magnetic energies. Prerequisite: EE 205 or equivalent with a grade of C or better.

EE 402 Senior Design Seminar 1 hr.
Students work in teams on a large-scale electrical engineering project, considering technical and non-technical factors in seeking an optimal solution. Prerequisite: senior standing in EE or ECE.

EE 409, 410 Special Topics 1-6 hrs. each
Topics of special interest which may vary each time course is offered. Topic stated in current Schedule of Classes. Prerequisite: consent of instructor.

EE 430 Electromechanical Systems 3 hrs.
Introduction to dynamic systems analysis with emphasis on mathematical modeling of sensors and electromechanical devices for control system applications. Fundamentals of power and industrial electronics. Prerequisites: EE 301, EE 303

EE 431, 432 Control System Theory 3 hrs. each
Linear, non-linear, and discrete automatic control systems; classical and modern control theory; computer-aided design and simulation. Prerequisite: senior standing in EE.

EE 450 Electronic Product Design 1 hr.
Students work in teams to design, implement, test, and demonstrate an electronic product. The electronic product has stringent specifications emulating design in industry. The design process requires extensive documentation and a formal report. Prerequisites: EE 332 with a minimum grade of C.

EE 451 Senior Capstone Project I 3 hrs.
First of two courses devoted to the Senior Design Project. The primary goal of this course is to have the student (and partner) choose a senior project and use a top-down design approach prior to implementation in senior lab. In addition, the student will serve on a Design Review Team (DRT) that will analyze other senior projects. Prerequisites: credit in EE 301, 302, 303, 304, 331, 332, 365, and 381 with a grade of C or better in six of the courses; credit or concurrent enrollment in EE 450 and two EE or technical electives.

EE 452 Senior Capstone Project II 3 hrs.
Second of two courses devoted to the Senior Design Project. Requires an oral project presentation and a written report. Prerequisites: EE 450, 451.

EE 531 Communication Theory I 3 hrs.
Orthogonal signal representation; review of Fourier series and Fourier transform; basic probability theory; random processes; power spectral density; Shannon's channel capacity; sampling theorem; baseband signaling; bandpass signaling; complex envelop representation of signals and systems; analog modulations; binary and M-ary digital modulations; phase locked loops, demodulation circuits; matched filter; error performance in digital communications. Prerequisites: a minimum grade of C in both EE 301 and EE 302 or equivalents.

EE 532 Communication Theory II 3 hrs.
Digital communication systems; modulation; demodulation; maximum likelihood detection; trade-offs between bandwidth and power; bit error rate; channel coding techniques: block coding, convolutional coding, and iterative decoding; mutual information; channel capacity; trellis-coded modulation; synchronization. Prerequisite: EE 531.

EE 533 Digital Image Processing 3 hrs.
Design of computer-based imaging systems; multidimensional filtering and quantization methods for image enhancement, restoration, and pattern recognition. Prerequisite: EE 302 or MTH 325.

EE 534 Digital Signal Processing 3 hrs.
Representation and analysis of discrete time signals and systems. Finite and infinite impulse response filter design; computer-aided-design; Fast Fourier Transform; implementation of digital filters. Prerequisite: EE 302.

EE 535 Engineering Applications of Neural Networks 3 hrs.
Provides a working knowledge of the theory, design, and engineering applications of artificial neural networks. Emphasis will be directed to low-level implementation such as embedded microcontrollers and integrated circuits. Specific architectures such as correlation matrix memory, perceptron, adaline, multilayer networks, radial-basis function networks, and Hopfield networks will be examined as well as their corresponding learning rules. Prerequisite: EE 302 or graduate standing.
EE 540 Dynamic Systems Analysis 3 hrs.
Advanced techniques for analysis of electrical, mechanical and electromechanical systems. State function concepts are emphasized with applications for determining state equations, system stability, and control. Prerequisite: EE 302 or graduate standing.

EE 550 Electromagnetic Theory 3 hrs.
Time-varying electric and magnetic fields; Maxwell's equations, electromagnetic potentials, electromagnetic boundary conditions, plane-wave propagation in unbounded conducting and non-conducting media, wave polarization, Poynting vector, reflection and transmission of waves at boundaries; radiation and antennas. Prerequisite: EE 381 or equivalent with a grade of C or better.

EE 551 Radio Frequency Circuits and Systems 3 hrs.
Review of transmission lines, impedance matching and transformations, S-parameters, passive R.F. junctions, R.F. amplifier design, R.F. systems, and front end design. Prerequisites: EE 205, 206.

EE 555 Optical Fiber Communication 3 hrs.
EM wave propagation in silica glass and step index optical fibers, LP modes, multimode and singlemode fibers, optical transmitters and receivers, design of optical fiber communication systems meeting industry standards. Prerequisite: EE 381 or consent of instructor.

EE 561 Digital Systems: Logic Design 3 hrs.
Boolean algebra; logical design; storing and switching phenomena. Prerequisite: EE 304 or graduate standing.

EE 562 Digital Systems: Computer Structures 3 hrs.
Use of hardware programming language to design a small computer or other digital system: busing; control units; interfacing; transfer design. Prerequisite: EE 201.

EE 563 Advanced Electronics—VLSI System Design 3 hrs.
Design and implementation of very-large-scale-integrated systems (VLSI). Integrated circuit devices, subsystems, and architecture. Computer-aided-design (CAD) and design testing. Prerequisite: EE 304 or graduate standing.

EE 565 Digital Systems: Microprocessor and PC Architecture 3 hrs.
Architecture of PC-compatible computers; 32-bit processor architecture and assembly language programming; standard buses. Design of peripheral cards to interface with the standard PC bus architectures. Prerequisites: EE 365 or consent of instructor.

EE 566 Digital Systems: Memory & Interfacing 3 hrs.
Design of single-board computers using 32-bit processors; processor architecture and assembly language programming. Introduction to RISC processors. Prerequisites: EE 365 or consent of instructor.

EE 567 Advanced VLSI Design 3 hrs.
Addresses the testability of integrated systems, using very large scale integration or VLSI, which includes topics on devices, circuits, and digital subsystems in CMOS technology. Includes the concept and methodology for the design for testability of digital integrated systems. Prerequisite: EE 563

EE 568 VHDL: Digital System Design 3 hrs.
A structured guide to the modeling of the design of digital systems, using VHDL, a hardware description language. VHDL is designed to fill a number of needs in the design process. It allows description of the structure of a system, and the specification of the function using familiar programming language forms. As a result it allows the design of a system to be simulated and synthesized.

EE 575 Power Systems I 3 hrs. each
Analysis of electric power systems: fault studies; load flow; economic loading; stability; relaying; high voltage DC transmission; lightning and switching transients. Prerequisite: senior or graduate standing in EE.

EE 582 Medical Imaging 3 hrs.
Introduction to the common methods and devices employed for medical imaging, including conventional x-ray imaging, x-ray computed tomography (CT), nuclear medicine (single photon planar imaging), single photon emission computed tomography (SPECT), and positron emission tomography (PET), magnetic resonance imaging (MRI), and ultra-sound imaging. The physics and design of systems, typical clinical applications, medical image processing, and tomographic reconstruction. Cross-listed as ME 582. Prerequisites: senior standing in engineering or consent of instructor.

Electrical Engineering Technology

EET 320 Electricity and Power 3 hrs.
Fundamentals of direct current and alternating circuits, transformers, rotating machinery, electrical and electronic control, and electrical energy. Not open to EE majors. Prerequisites: IMT 214; PHY 108 or equivalent.
Engineering Physics Program

"Engineering physicists explore the universe in search of solutions for problems that need to be understood."

Students majoring in engineering physics will receive a Bachelor of Science degree with a major in engineering physics. This degree is offered through the cooperation of the faculties of the Department of Physics and the College of Engineering and Technology. The program is monitored by the Engineering Physics Advisory Committee which is made up of representatives from the physics department and the College of Engineering and Technology. The physics department is responsible for the administration of the program.

Program
The program is designed to provide the student with a strong background in basic science and mathematics while at the same time developing in them the ability to apply pertinent knowledge to the practice of engineering. Graduates of the program will be prepared to pursue graduate studies in physics, engineering, or related fields and to hold significant positions in government and industry. Like most engineers employed in research and development, the engineering physicist will be involved in designing, developing, and supervising the construction of new and often unique devices utilizing basic scientific information. The strong background of the engineering physicist in the basic and engineering sciences and mathematics affords the graduate of the program a wide variety of employment and educational opportunities. Many of these opportunities are different from those of the traditional engineering disciplines, particularly at the entry level of employment.

Specified Core Courses
All courses named specifically in the curriculum outline are required. For more specific information see the Physics Department material in the College of Liberal Arts and Sciences section of this catalog. Substitution or waiver of these courses for other courses taken at Bradley or transferred into the program from another institution can be made only at the discretion of the Engineering Physics Advisory Committee.

General Education Requirements
The student’s selection of humanities and social science courses should provide a broad education consistent with the objectives of the engineering profession. It is recommended that two of the courses chosen to meet the non-western civilization (NW), fine arts (FA), human values (HL or HP) or social forces (SF) general education requirements be taken from the same program with one being lower level (100 or 200 level) and one being advanced level (300 or above). Students who wish to transfer courses from another institution to meet the general education requirements must have them approved by a transfer admissions counselor.

Engineering Topics
Upon entering the University students will work in close consultation with academic advisors in physics and engineering to develop a four-year sequence of courses which forms a curriculum with a particular engineering emphasis. These courses are taken from an approved list of course offerings in the departments of Civil Engineering and Construction, Mechanical Engineering, Electrical and Computer Engineering, Industrial and Manufacturing Engineering and Technology, and Physics. Engineering topics constitute 41 semester hours with the majority of the courses being engineering science and design. The course work must provide for a particular engineering orientation, such as materials engineering, signals and systems engineering, electromagnetism, or another emphasis that can be constructed from the list of approved courses.
### Engineering Physics Courses Core

#### Freshman Year

**First Semester**
- PHY 199 Freshman Seminar ........................................................1
- CHM 110 General Chemistry .....................................................3
- CHM 111 General Chemistry Lab ............................................1
- MTH 121 Calculus I .................................................................4
- ME 101 Foundations of Mechanical Engineering or Gen. Ed. (FA) .................................................................2-3
- ME 273 Computational Methods in ME or EE 101 Intro EE .................................................................1
- ENG 101 English Composition ................................................3  __

**Second Semester**
- PHY 110 University Physics .....................................................4
- CHM 112 Engineering Chemistry .............................................3
- MTH 122 Calculus II .................................................................4
- COM 103 Oral Communication Process ...................................3
- ME 102 Engin. Design Graphics or EE 102 Computers and Programming in EE .........................................................2

**Sophomore Year**

**First Semester**
- PHY 201 University Physics II .................................................4
- MTH 223 Calculus III .................................................................4
- Gen. Ed. (W. Civ.) .................................................................3
- Gen. Ed. (FA or HV, Philosophy) ...........................................3
- Engineering Topics (Approved) ................................................3

**Second Semester**
- PHY 202 Applied Quantum Physics ........................................3
- PHY 350 Applied Quantum Physics Lab ................................1
- MTH 224 Differential Equations .............................................4
- Gen. Ed. (Social Forces) .........................................................3
- Engineering Topics (Approved) ................................................3

**Junior Year**

**First Semester**
- PHY 305 Electricity and Magnetism ...........................................3
- PHY 301 Classical Mechanics ................................................3
- ENG 305 Technical Writing ....................................................3
- Engineering Topics (Approved) ................................................6-3
- Gen. Ed. (Human Values - Philosophy) ..................................3

**Second Semester**
- PHY 361 Electronics .................................................................3
- PHY 306 Electromagnetic Waves .............................................3
- MTH 207 Linear Algebra ........................................................3
- Engineering Topics (Approved) ................................................6

**Senior Year**

**First Semester**
- PHY 501 Quantum Mechanics ................................................3
- PHY and EGT Design Project ................................................3
- PHY 467 Stat. & Thermal Physics .............................................3
- Gen. Ed. (Social Forces) .........................................................3
- Engineering Topics (Approved) ................................................6

**Second Semester**
- PHY and EGT Design Project ................................................3
- PHY 320 Optics .................................................................3
- PHY 350 Optics Lab ...............................................................1
- PHY or MTH Elective .............................................................3
- Engineering Topics (Approved) ................................................6

**Total Hours** 129-130
Department of Industrial & Manufacturing Engineering & Technology

The baccalaureate programs in industrial engineering and manufacturing engineering are accredited by the Engineering Accreditation Commission of the Accreditation Board for Engineering and Technology. The baccalaureate program in manufacturing engineering technology is accredited by the Technology Accreditation Commission of the Accreditation Board for Engineering and Technology, 111 Market Place, Suite 1050, Baltimore, MD 21202-4012. Telephone: (410) 347-7700.

FACULTY  Professors Emanuel, Feng, Krishnamoorthi, Kroll, Lin, Newton (emeritus), Shareef, Sverdlin, Tayyari; Associate Professors, Ness (chair), Saboury; Adjunct Professors Griffin, Stenger.

The department offers three baccalaureate degree programs:
•  Industrial engineering (B.S.I.E.),
•  Manufacturing engineering (B.S.Mf.E.),
•  Manufacturing engineering technology (B.S.Mf.E.T.)

Objectives

Industrial Engineering (BSIE)
The objective of the program is to develop in our graduates a strong problem-solving ability based upon a technical and scientific foundation that treats production as a system and integrates the various aspects of each system into a whole, whether in manufacturing or services. This ability will prepare graduates to pursue careers in settings across a multitude of fields from health care and banking to manufacturing and logistics as well as to seek advanced degrees in related fields.

Outcomes

Industrial Engineering graduates will have:
(a) an ability to apply knowledge of mathematics and science to mathematical modeling and to problems related to systems that produce products and services;
(b) an ability to design and conduct experiments, as well as to analyze data and interpret experimental results;
(c) an ability to design or select components or processes of a production or service system to obtain desired output based on performance, economic, and productivity criteria;
(d) an ability to function on multi-disciplinary teams, an understanding of the concurrent approach to process and product development, and an ability to perform project management;
(e) an ability to identify, formulate, and find optimal solutions to system problems, while considering physical and economic constraints as well as safety and ergonomics issues;
(f) an understanding of professional and ethical responsibilities of an industrial engineer;
(g) an ability to utilize modern tools and techniques to effectively communicate technical requirements and functionality in oral, written, and graphical forms;
(h) the broad education necessary to understand the impact of engineering solutions in a global and societal context;
(i) a recognition of the need for, and an ability to engage in, continuous improvement projects and life-long learning;
(j) a knowledge of contemporary issues facing engineers;
(k) an ability to use techniques, skills and modern engineering tools necessary for industrial engineering practice, utilizing supporting technologies or techniques including economic measurement, information systems design, occupational ergonomics, human behavior, systems planning, and total quality management.

Manufacturing Engineering (BSMfE)
The objective of the program is to provide education to equip our graduates with a strong technical and scientific foundation that treats manufacturing as a system and integrates the areas of manufacturing processes, engineering materials, product design, automation, and manufacturing management. The graduates will have the necessary tools to pursue careers in settings that include automotive, aerospace, and heavy and light equipment manufacturers and to seek advanced degrees in related fields.

Outcomes

Manufacturing Engineering graduates will have:
(a) an ability to apply knowledge of mathematics and science to manufacturing process, materials, project management, and design of manufacturing systems, emphasizing discrete piece part manufacture;
(b) an ability to design and conduct experiments, as well as to analyze and interpret data related to manufacturing processes, materials evaluation, and manufacturing systems;
(c) an ability to design, select, and control a manufacturing system and its components or processes to meet desired needs;
(d) an ability to function on multi-disciplinary teams, an understanding of the concurrent approach to process and product development, and the ability to perform manufacturing project management;
(e) an ability to identify, formulate, and solve manufacturing engineering problems considering constraints, costs, benefits, and competitiveness of comparative processes and materials, through a hands-on approach;
(f) an understanding of the professional and ethical responsibilities of a manufacturing engineer;
(g) an ability to utilize modern tools and techniques to effectively communicate technical requirements and functionality in oral, written, and graphical forms;
(h) the broad education necessary to understand the impact of manufacturing engineering solutions in a global and societal context;
(i) a recognition of the need for and an ability to engage in lifelong learning;
(j) a knowledge of contemporary issues facing engineers;
(k) an ability to use the techniques, skills, and modern engineering tools necessary for manufacturing engineering practice utilizing supporting technologies including design for assembly, design for manufacturability, computer aided design, computer aided manufacturing, and rapid prototyping.

Manufacturing Engineering Technology (BSMFET)

The objective of the Manufacturing Engineering Technology program is to equip our graduates with a strong technical foundation that integrates manufacturing processes, materials, manufacturing management, automation, and product design. The graduates will have the necessary tools to pursue careers in settings that include automotive, aerospace, heavy and light equipment manufacturers, as well as seek advanced degrees in related fields.

Outcomes
A Manufacturing Engineering Technology graduate will have:
(a) a strong background in manufacturing processes and materials for discreet piece part manufacture, considering nomenclature recognition, limits, costs, benefits, etc. of comparative processes and materials through a hands-on approach;
(b) strong mathematics, science, and computer skills with emphasis on programs that aid process and product analysis and control, as well as the ability to apply a concurrent approach to process, product, and equipment design with supporting technologies such as: DFM, DFA, CAD, CAM, CAE and rapid prototyping;
(c) an ability to conduct experiments, as well as to analyze and interpret data related to manufacturing processes, materials evaluation, and manufacturing systems;
(d) the ability to integrate multiple technical concepts and societal considerations for the solution of open-ended design problems and in the design of systems;
(e) interpersonal skills and the ability to work as part of an interdisciplinary team;
(f) an ability to identify, formulate, and solve manufacturing problems considering constraints, costs, benefits, and competitiveness of comparative processes and materials;
(g) an ability to utilize modern tools and techniques to effectively communicate technical requirements and functionality in oral, written, and graphical forms;
(h) a recognition of the need for and an ability to engage in lifelong learning;
(i) an understanding of the professional and ethical responsibilities of a manufacturing professional;
(j) the broad education necessary to understand the impact of manufacturing solutions in a global and societal context;
(k) a knowledge of contemporary issues facing manufacturing professionals including a commitment to quality, timeliness, and continuous improvement.

Programmatic Distinctions
In choosing a career option, the student should be aware of the respective functions of the engineer and engineering technologist. Generally speaking, the engineer conceives, designs, and advances the development of products and systems. On the other hand, the engineering technologist implements, maintains, and tests products and systems. The engineer creates new technologies while the engineering technologist applies existing technologies.

The distinction between industrial engineering and manufacturing engineering is one of breadth vs. depth. Industrial engineers are involved with the design, improvement, and management of technical systems. These systems may be located in service industries such as banks, hospitals, and government as well as in manufacturing industries. Manufacturing engineers are involved in the design, installation, and improvement of the production process and generally are limited to manufacturing industries.

The engineering student’s selection of humanities and social science courses provide a broad education consistent with the objectives of the engineering profession. Courses should be selected to provide both breadth and depth and not be limited to unrelated introductory courses. This objective can be met by taking two courses in the same department with at least one being at the 300 level or above. Students minoring in business are permitted to use ECO 100/221 and ECO 222 to meet this requirement.

The department works closely with industry and has an outstanding industrial & manufacturing engineering & technology department Advisory Council consisting of distinguished members from industry, government, and education.
Student Organizations

Student chapters of the American Society for Materials (ASM), American Society for Quality (ASQ), Institute of Industrial Engineers (IIE), Society of Automotive Engineers (SAE), American Foundrymen’s Society (AFS), and Society of Manufacturing Engineers (SME) are sponsored by the department to support and encourage the professional development of the students. The department is also a strong supporter of the student chapter of the Society of Women Engineers (SWE).

Honor societies for industrial engineering students (Alpha Pi Mu) and for manufacturing students (Beta Tau Epsilon) are also represented.

The department offers master’s degrees in industrial engineering (M.S.I.E.) and manufacturing engineering (M.S.M.F.E.)

Minor in Applied Ergonomics

Today’s fast-paced work systems and advancements in technology have increased repetitious tasks and, consequently, increased the risk of ergonomic-related problems. The minor in applied ergonomics prepares students in engineering, physical therapy, nursing, business administration, mathematics, and science with the foundation and skills to address these problems in their work area, thereby complementing the focus of their majors and enhancing employment opportunities. The minor in applied ergonomics requires a total of 15 semester hours.

Required courses (9 hours)
IME 587 Occupational Safety and Health ......................... 3
IME 585 Occupational Ergonomics ...................................... 3
HS 460 Basic Science of Human Movement ....................... 3

Electives (6 hours)
Choose one of the following two courses:
IME 386 Industrial and Managerial Engineering ............... 3
HS 480 Motion Analysis ................................................... 3

Choose one course from the following group:
IME 383 Industrial Management (not open to IME majors) .. 3
IME 466 Facilities Planning ............................................. 3
PSY 310 Industrial and Organizational Psychology ............ 3
PSY 405 Issues in Applied Psychology ................................ 3
BMA 352 Managing in Organizations .............................. 3
BMA 356 Human Resource Management .......................... 3

Minor in Quality Engineering

The minor in quality engineering is designed to give students in engineering, mathematics, science, and business an opportunity to learn the methodologies for designing, producing, and delivering quality products and services. This experience should prepare students better for future careers and give them a competitive edge in the job market.

Requirements
A minimum of 21 hours must be taken from the following list of required and elective courses. At least 9 hours must be taken from the College of Engineering and Technology. Students desiring admission to the minor must have completed one semester of college calculus. A second semester of college calculus is strongly encouraged. Admission to the minor as well as the granting of the minor must be approved by the chair of the IMET Department.

Required Courses (12 hrs.)
Fundamentals of Probability and Statistics .................... 6
Choose one pair
IME 311, 312 Engineering Statistics I, II
MTH 325, 326 Probability and Statistics I, II
QM 262, 263 Quantitative Analysis I, II

Basic Quality Methods, Quality Costs & Quality Systems, TQM ................................................. 3
Choose one
IME 302 Introduction to Quality Engineering
IME 522 Manufacturing Quality Control
IME 262 Applied Statistics & Quality Control

Management Methods for Quality ................................ 3
BMA 352 Managing in Organizations

Electives (9 hrs.)
Choose no more than one course from each area

Metrology
IME 362 Metrology & Instrumentation
ME 303 Instrumentation and Measurement

Advanced Diagnostic Tools
IME 512 Design and Analysis of Experiments
IME 524 Advanced Quality Control

Information Systems
IME 497 Information Systems Design
BMA 372 Management Information Systems
CS 310 Information Structures and Management

Quality in Design
IME 526 Reliability Engineering

Other Quality-Related Areas
Other courses to be approved by the IMET Dept.

Minor in Manufacturing

The minor in manufacturing is designed to provide students in engineering and business with adjunct knowledge of value to their chosen major. Students may choose a minor in manufacturing to advance their personal career goals or to prepare for graduate studies. This experience should give students a competitive edge in the job market.

Requirements
A minimum of 21 hours must be taken from the following list of required and elective courses. Students desiring admission to the minor must have completed one semester of college calculus. A second semester of college calculus is strongly encouraged. Admission to the minor as well as the granting of the minor must be approved by the chair of the IMET department.
Required Courses
1. IME 301 Engineering Economy or
   IME 383 Industrial Management or
   BMA 353 Operations Management (for business majors only) ............................................3
2. IME 331 Fundamentals of Materials Science or
   ME 351 Engineering Materials Science I (for ME majors only) ................................................3
   and
   IME 333 Materials Science in Engineering Lab ..............................................................1
   or
   IMT 232 Physical Metallurgy .................................................4
3. IME 341 Intro to Manufacturing Processes ..............................................................3

Elective Courses
Students must choose one additional course from each of the four concentration areas listed. Students must complete a minimum of five credit hours from the courses designated with *.

Facilities and Management
BMA 352 Managing in Organizations
IME 301 Engineering Economy
IME 383 Industrial Management
CON 394 Construction Labor & Unions
CON 492 Construction Contracts
IME 466 Facilities Planning

Design
*IME 103 Computer Aided Graphics
*IME 395 Solid Modeling & Rapid Prototyping
M E 448 CAD in Mechanical Engineering
*IME 591 Design for Manufacturability
*IME 491 Manufacturing Design
*IME 493 Mechanical Design
*IMT 392 Mechanical Component Design I

Automation
M E 441 Mechanical Control Systems
M E 560 Principles of Robotic Programming
*IMT 346 Computer Aided Manufacturing & Automation I
*IME 445 Computer Aided Manufacture

Product Assurance
IME 302 Introduction to Quality Engineering
*IMT 262 Applied Statistics & Quality Control
IME 522 Manufacturing Quality Control
*IMT 362 Metrology & Instrumentation
IME 311 Engineering Statistics
QM 263 Quantitative Analysis II

Industrial Engineering Major
Finding a better way is the goal of the industrial engineer.

Whether it be a simple system such as an assembly line worker’s hand tools or a large computerized police manning and scheduling system, the industrial engineer is always striving to produce a more efficient human-machine system. The industrial engineer applies engineering methods to a variety of activities in the design, production, and distribution of goods and services; works in organizations including manufacturing, hospitals, commerce, and government agencies; and operates in such specific professional areas as human work measurement, management systems design, human factors engineering, applied statistics, operations research, reliability and quality control, and systems engineering. Industrial engineering is the combination of engineering and business administration.

The curriculum provides a sound basis in the fundamentals of engineering, physical and behavioral sciences, and theoretical and applied mathematics. The emphasis on problem solving of both structured and unstructured types prepares the student for a wide variety of IME employment opportunities as well as for graduate training in IME, or such associated professions as law or business. This diversity of career opportunities is a major reason that students choose IME. The student is encouraged to select a minor in a supporting area such as business, quality engineering, computer science, manufacturing, math, psychology, or economics. Some minors will require additional hours beyond BSIE requirements.

All faculty teaching in the IME program have had full-time industrial experience. The emphasis of the department is therefore directed toward real-world problems. During the senior year, students work under faculty supervision on actual problems that exist in the community in both manufacturing organizations and service organizations such as hospitals, city government, air transport companies, court systems, and utility companies.

Freshman Year
First Semester
IME 101 Intro. to Industrial & Manufacturing Eng. ...............1
IME 103 Computer Aided Graphics .................................................2
MTH 121 Calculus I .............................................................................4
CHM 110 General Chemistry I .............................................................3
CHM 111 General Chemistry I Lab .........................................................1
ENG 101 English Composition .........................................................3
Gen. Ed. - Social Forces Economics1 ..............................................3

Second Semester
IME 105 Introduction to Computers & Computation ..........2
MTH 122 Calculus II .................................................................4
PHY 110 University Physics I ...............................................................4
COM 103 The Oral Communication Process ................................3
Gen. Ed. - Western Civilization1 .........................................................3

1To meet the ABET requirements for humanities and social sciences, some general education courses must be selected according to the IE approved list. They may be taken in any sequence and not necessarily in the semester indicated. Other University general education requirements are satisfied by specific courses required above.

*See “Approved Electives – IE.”
Sophomore Year
First Semester
IME 117 Computer Numerical Applications ......................... 2
IME 301 Engineering Economy I ........................................... 3
MTH 223 Calculus III .......................................................... 4
PHY 201 University Physics II ............................................. 4
C E 150 Mechanics I ........................................................... 3

Second Semester
C E 301 Mechanics of Materials .......................................... 3
IME 311 Introduction to Engineering Statistical Methods ......... 3
IME 386 Industrial & Managerial Engineering ....................... 3
MTH 224 Differential Equations .......................................... 4
IME 331 Fundamentals of Material Science ............................ 3
IME 305 Engineering Economy II ........................................ 2

Junior Year
First Semester
IME 312 Engineering Statistical Methods ............................ 3
IME 313 Operations Research I ............................................. 3
IME 325 Transport Phenomena ............................................ 3
Gen. Ed. - Fine Arts 1 ....................................................... 3
Gen. Ed. - Human Values 1 ............................................... 3

Second Semester
IME 314 Operations Research II ......................................... 3
IME 466 Facilities Planning ................................................. 3
IME 522 Manufacturing Quality Control ............................... 3
Manufacturing Elective 2 .................................................... 3
Gen. Ed. - Social Forces 1 .................................................. 3

Senior Year
First Semester
IME 497 Information Systems Design ................................. 3
IME 561 Simulation of Human/Machine Systems .................. 3
IME 585 Occupational Ergonomics ...................................... 3
E E 327 Fundamentals of Electrical Engineering I ................. 3
PSY 310 Industrial & Organizational Psychology .................. 3

Second Semester
IME 499 Senior Industrial Design Project ............................ 4
IME 583 Production Planning and Control ............................ 3
Tech Elective 2 ................................................................. 3
Gen. Ed. - Eng. 305 Technical Writing 1 ............................... 3
Gen. Ed. - Non-Western Civilization 1 .................................. 3

Total 128

Students must have a cumulative grade point average of 2.25 in all IMET Department courses for graduation.

Approved Electives – IME
Manufacturing Electives
IME 342 Advanced Manufacturing Processes I
IME 344 Advanced Manufacturing Processes II
IME 346 Computer-Aided Manufacturing & Automation I
IME 362 Metrology and Instrumentation
IME 446 Computer-Aided Manufacturing & Automation II
IME 341 Introduction to Manufacturing Processes
IME 395 Solid Modeling & Rapid Prototyping
IME 441 Materials Processing I
IME 443 Materials Processing II
IME 445 Computer Aided Manufacturing
IME 560 Principles of Robotic Programming

Technical Electives
Any engineering course (CE, EE, IME, ME) numbered 300 or higher that is not already specifically required in the curriculum.

CON 352 Urban Environment
CON 372 Construction Methods Improvement
CON 392 Construction Scheduling
CON 394 Construction Labor and Unions
CON 396 Construction Estimating
Any business management and administration course numbered BMA 342 or higher.
Any economics course except ECO 100.
Any finance course numbered FIN 315 or higher.
Any international business course (IB).
Any marketing course numbered MTG 304 or higher.
Any quantitative methods course numbered QM 326 or higher.
Any biology course except BIO 300.
Any chemistry course numbered CHM 112 or higher, except CHM 300.
Any computer science course numbered CS 106 or higher.
Any geological sciences course except GES 300.
Any mathematics course numbered MTH 301 or higher.
PSY 306 Experimental Psychology
PSY 307 Cognitive Psychology
PSY 308 Social Psychology
PSY 403 Physiological Psychology
PSY 404 Sensation and Perception
ENG 304 Research in Individual Disciplines
ENG 306 Business Communication

BSIE Combined with MBA Program
Undergraduate students in the industrial engineering program may combine their studies and earn an MBA degree in five and one-half years or fewer. Students may include all of the prerequisites for the MBA program as part of their required 128 undergraduate semester hours. Careful scheduling is required and should be coordinated with the student’s undergraduate advisor and director of graduate programs.

Students electing this option must be fully admitted before registering for graduate-level courses and have the
written approval of the director of graduate programs. Students should contact the director of graduate programs during their sophomore year for particular information.

**Manufacturing Engineering Major**

Manufacturing engineering is one of the newest and most dynamic fields of the engineering professions. It involves the development and coordination of the entire manufacturing process from product design through after-sale service.

Advanced manufacturing systems are dramatically transforming the world for the better. The manufacturing engineer is a key architect, evolver, and implementer of that change.

Manufacturing engineers apply their knowledge of the sciences of materials, processes, and information to the design, integration, and advancement of products and systems of manufacture. They understand value-added concepts through effective transformation of materials into products.

The manufacturing engineer is responsible for research, development, design, planning, implementation, and operation of manufacturing systems. Throughout his/her professional career the manufacturing engineer is expected to progress from a technical strategist to operations integrator to manufacturing strategist. The manufacturing engineer works as a member of a team. His/her role encompasses not only technological factors but also human, economic, and environmental factors.

The manufacturing engineering program is designed to provide the student with a broad intellectual horizon together with a firm technical foundation necessary to meet future challenges in manufacturing engineering. The curriculum builds on a solid foundation of science and mathematics and combines a broad base of engineering sciences and their application to analysis, synthesis, and creative design.

Laboratory experience is an essential component of the manufacturing engineering program. Five laboratories are well equipped to serve the program in computer aided graphics and design, computer integrated manufacturing and robotics, materials science and engineering, materials removal and fabrication, and computer aided manufacturing.

Graduates from the program have a wide range of career options in industry, government, research, service, and entrepreneurship. Graduates may also choose to advance their education through post-graduate studies.

**BSMFE Combined with MBA Program**

Undergraduate students in the manufacturing engineering program may combine their studies and earn an MBA degree in five and one-half years or fewer. Students may include most or all of the prerequisites for the MBA program as part of their required 128 undergraduate semester hours. Careful scheduling is required and should be coordinated with the student’s undergraduate advisor and director of graduate programs.

Credit in the following courses must be obtained to meet degree requirements in manufacturing engineering. A minimum grade point average of 2.25 in IMET department courses must be achieved for graduation.

**Freshman Year**

*First Semester*

- IME 101 Intro. to Industrial & Manufacturing Eng. ..........1
- IME 103 Computer Aided Graphics .............................2
- MTH 121 Calculus I .......................................................4
- CHM 110 General Chemistry I .................................3
- CHM 111 General Chemistry I Lab ...........................1
- ENG 101 English Composition .................................3
- Gen. Ed. Social Forces Economics 1.........................3

*Second Semester*

- IME 105 Intro. to Computers and Computation ............2
- MTH 122 Calculus II ....................................................4
- PHY 110 University Physics I .................................4
- COM 103 The Oral Communication Process .................3
- Gen. Ed. - Western Civilization 1 .........................3

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**Sophomore Year**

*First Semester*

- IME 117 Computer Numerical Applications .................2
- IME 301 Engineering Economy I ............................3
- MTH 223 Calculus III ................................................4
- PHY 201 University Physics II ..............................4
- C E 150 Mechanics I ...............................................3

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*Second Semester*

- IME 386 Industrial and Managerial Engineering ..........3
- IME 341 Introduction to MFG Processes ..................3
- IME 331 Fundamentals of Materials Science .............3
- C E 301 Mechanics of Materials ............................3
- MTH 224 Differential Equations ...............................4

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**Junior Year**

*First Semester*

- IME 311 Intro. to Engineering Statistical Methods ........3
- IME 395 Solid Modeling & Rapid Prototyping ..........3
- IME 325 Transport Phenomena .............................3
- IME 333 Materials Science Lab ............................3
- IME 431 Material Engineering ..............................1
- IME 433 MFG Properties of Materials ......................2
- Gen. Ed. Human Values ..........................................3

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3See "Approved Electives--MFE."
Second Semester
IME 441 Materials Processing I or  
IME 443 Materials Processing II ............................................. 3
IME 522 Manufacturing Quality Control ................................ 3
IME 466 Facilities Planning .................................................... 3
Gen. Ed. Fine Arts .................................................................. 3
Gen. Ed. Social Forces ............................................................ 3
.......................................................................................... 15
Senior Year ...........................................................................
First Semester
IME 445 Computer Aided Manufacturing ................................. 4
IME 491 Manufacturing Design or  
IME 493 Mechanical Design .................................................. 4
IME 516 Simulation of Human/Machine Systems .................... 3
EE 327 Fundamentals of Electrical Engineering ..................... 3
Gen. Ed. Non Western Civ ..................................................... 3
IME 516 Simulation of Human/Machine Systems ................. 3
IME 491 Manufacturing Design or  
IME 493 Mechanical Design .................................................. 4
IME 499 Senior Industrial Design Project ................................. 4
IME 591 Design for Manufacturability ................................... 3
ENG 305 Technical Writing ..................................................... 3
Tech Elective3 ............................................................................ 6
.......................................................................................... 17
Approved Electives – MFE
Six hours of technical electives should be taken during the last three semesters of the program and should be selected to emphasize an academic focus of interest. Three hours must be in engineering design. Electives must be approved by the students’ academic advisor.

Manufacturing Engineering Electives
Any 300-level or higher IME course not required in the program.
Any advisor-approved 300-level or higher IMT course.

Other Courses
Any civil, electrical, or mechanical engineering course (CE, EE, ME) numbered 300 or higher.
Any advisor-approved mathematics or science course not required in the program.

Manufacturing Engineering Technology Major
Industry today is surrounded by problems that are often difficult to identify and even harder to solve. They include government regulation, consumerism, inflation, foreign competition, high labor cost, and the skyrocketing cost of doing business. In order to solve such problems, it is necessary to educate individuals to combine theory and practice for the effective implementation of state-of-the-art technologies.

Toward this goal, the Department offers a Manufacturing Engineering Technology baccalaureate program with the following Technical Concentrations:

- Manufacturing Design
- Manufacturing Systems
- Student Designed

This program reflects the pressing needs of industry by integrating studies of mechanical design, modern manufacturing processes, materials science and technology, digital techniques, management practices, and social sciences. Graduates are placed in various phases of management, production, product development, test and evaluation, sales, and service. In addition to the Technical Concentrations, the curriculum is designed for the development of competence in the areas of mathematics, physics, chemistry, and other technical sciences such as mechanics, strength of materials, electronics, and computer science. Laboratory activities support the basic concepts studied, while providing familiarity with actual hardware, its theory of operation, and its uses in the current state of the art. Complementary courses may be taken in business management, engineering, and the physical sciences.

The Manufacturing Design Concentration emphasizes design and selection of production machinery and equipment and the link between product design and production in terms of manufacturability. The program has technical depth in the specialty areas of product or component design and development, as well as in the area of manufacturing processes and their applications in industry. Laboratory experiences are provided in the areas of manufacturing processes, materials, numerical control, strength of materials, and computer graphics and design. The graduates will be able to do their own layout work and calculations related to design and selection of machine components, analysis of experimental results, and determining manufacturability.

The Manufacturing Systems Concentration emphasizes the optimal design and selection of production processes and their control. The curriculum embodies the technical and practical phases in design, development, manufacturing, programming, and utilization of materials. Laboratory experiences are provided in the areas of machine tool processes, thermal processes, metrology, numerical control, materials, robotics, and computer graphics. Courses are designed to afford the student an opportunity to acquire knowledge and to provide for the application of the basic principles of the physical sciences related to manufacturing.

The Student Designed Concentration is available to transfer students, from community colleges, that have pursued technical programs that have a different emphasis than the above concentrations. This will allow the student (with approval by the program advisor) to design a Manufacturing Engineering Technology program to meet their defined career objectives.

Credit in the following courses and in courses listed under the approved technical emphasis must be obtained to meet the degree requirements in Manufacturing Engineering Technology. A minimum grade point average of 2.25 in IMET Department courses must be achieved for graduation.
Manufacturing Engineering Technology Program

General Education ................................................................. 27 hrs.
ENG 101 English Composition ........................................... 3
ENG 305 Technical Writing .................................................. 3
COM 103 The Oral Communication Process ...................... 3
ECO 100 Introduction to Economics .................................... 3
Social Forces Elective ............................................................ 3
Western Civ Elective ............................................................ 3
Non-western Civ Elective ....................................................... 3
Fine Arts Elective ............................................................... 3

Approved Technical Emphasis
IMT 362 Metrology & Instrumentation ............................... 3
IMT 346 Computer Aided Manufacturing & Automation I ....... 3
ENG 305 Technical Writing .................................................... 3
ENG 101 English Composition ............................................. 3
............................................................. 27 hrs.

General Education
Technology Program
Manufacturing Engineering

IMT 212 Tech Calculus I ....................................................... 3
IMT 214 Tech Calculus II ....................................................... 3
IMT 216 Tech Calculus III ...................................................... 3
PHY 107 General Physics I .................................................... 4
PHY 108 General Physics II ................................................... 4
CHM 100 Fundamentals of General Chemistry ................... 3
CHM 101 Fundamentals of General Chemistry Lab ............... 1
IME 105 Intro. to Computers & Computation ...................... 2
IME 117 Computer Numerical Applications ......................... 2

Technical Science ................................................................. 17 hrs.
IMT 222 Statics ................................................................. 3
IMT 322 Dynamics ............................................................. 3
IMT 324 Strength of Materials ............................................. 4
IMT 328 Mass & Energy Transfer ......................................... 4
EET 320 Electricity & Power ............................................... 3

Technical Core ................................................................. 35 hrs.
IME 101 Intro. to Industrial & Manufacturing Eng. ............... 1
IME 103 Computer Aided Graphics ...................................... 2
IME 341 Introduction to Manufacturing Processes ................. 3
IME 395 Solid Modeling & Rapid Prototyping ....................... 3
IMT 232 Physical Metallurgy ................................................ 4
IMT 262 Applied Statistics & Quality Control ....................... 3
IME 332 Non-metallic Materials ......................................... 3
IME 342 Advanced Manufacturing Processes I or ...
IME 344 Advanced Manufacturing Processes II .................. 3
IME 346 Computer Aided Manufacturing & Automation I ....... 3
IME 362 Metrology & Instrumentation .................................. 3
IME 383 Industrial Management ........................................... 3
IME 498 Senior Industrial Project ......................................... 4

Approved Technical Emphasis
Select A, B, or C ................................................................. 12 hrs.
A. Manufacturing Design Concentration
IMT 392 Mechanical Component Design I .......................... 3
IMT 394 Dynamics of Machines ......................................... 3
IMT 492 Mechanical Component Design II ......................... 3
IMT 494 Computer Aided Systems Design ......................... 3

B. Manufacturing Systems Concentration
IMT 448 Tooling Systems .................................................. 3
IMT 464 Process Design and Planning .................................. 3
IMT 446 Computer Aided Manufacturing & Automation II .... 3
IMT 342 or IMT 344 (Second manufacturing processes course) .................................................. 3

C. Student Designed
A related group of courses, selected by the student, and approved by the program advisor to meet student defined career objectives.

Approved Technical Electives ............................................. 9 hrs.
Tech Elective I ................................................................. 3
Tech Elective II ................................................................. 3
Tech Elective III ............................................................... 3
The nine hours of approved technical electives should be selected to emphasize an academic focus of interest. Three hours must be in manufacturing. Electives must be approved by the student's academic advisor.

Total Hours 125

IMT Electives - Manufacturing Design Concentration
IMT 448 Tooling Systems
IMT 464 Process Design & Planning
IMT 446 Computer Aided Manufacturing & Automation II
IMT 342 or IMT 344 (Second Manufacturing Processes course)
IMT 409 Selected Manufacturing Projects
IME 410 Selected Manufacturing Topics

IMT Electives - Manufacturing Systems Concentration
IMT 392 Mechanical Component Design I
IMT 394 Dynamics of Machines
IMT 492 Mechanical Component Design II
IMT 494 Computer Aided Systems Design
IMT 409 Selected Manufacturing Projects
IME 410 Selected Manufacturing Topics

Manufacturing Engineering Electives
IME 433 Manufacturing Properties of Materials
IME 531 Nonmetallic Materials
IME 533 Composite Materials
IME 541 Forming Process
IME 543 Materials Removal Process
IME 545 Joining & Fabrication
IME 553 Advanced Computer Aided Manufacturing
IME 563 Process Engineering
IME 568 Introduction to Expert Systems and Artificial Intelligence
IME 583 Production Planning and Control
IME 590 Geometric Modeling
IME 591 Design for Manufacturability
Other Courses
Engineering Courses (CE, EE, IME, ME, CON), Science courses (CHM, CS, MTH, PHY).
Approved technical courses from community colleges.

Course Descriptions
IME 101 Introduction to Industrial & Manufacturing Engineering 1 hr.
Survey of industrial and manufacturing engineering. Introduction to IME and MFE techniques and tools. Not open to students with credit in any 200-level or above IME, IME, or MFE course.

IME 103 Computer Aided Graphics 2 hrs.
Computer aided drafting, theory of orthographic projection, sections, auxiliaries, and basic dimensioning.

IME 105 Introduction to Computers & Computation in Industrial & Manufacturing Engineering 2 hrs.
Use of computers in IME and MFE environments, use of various packages, LAN and WAN usage.

IME 117 Computer Numerical Applications 2 hrs.
Continuation of IME 105; coding of numerical algorithms as applied to engineering functions. Includes laboratory. Prerequisite: IME 105. Corequisite: integral calculus.

IME 200 Engineering Co-op 0 hrs.
Full-time cooperative education assignment for manufacturing engineering and industrial engineering students who alternate periods of full-time school with periods of full-time academic or career-related work in industry. Satisfactory/Unsatisfactory. Prerequisites: sophomore standing in the College of Engineering and Technology, 2.0 overall grade point average at Bradley, approval of engineering and technology Co-op coordinator and Co-op advisor.

IME 300 The World of Metals (Gen. Ed. TS) 3 hrs.
Designed for students concerned with metals and those with a general interest in the history of the metals upon which all civilization since the Stone Age has relied. Modern metallurgical technology, heat treatment, periodic table of elements, aspects of materials science and engineering, and history of technical procedures. Draws upon many modern and ancient texts. Not open to majors in engineering and technology.

IME 301 Engineering Economy I 3 hrs.
Analysis of economic aspects of engineering decisions. Effect of interest and other cost factors on evaluation of engineering alternatives. Roles of mathematical models and other techniques in economical design and test of products. Introduction to value engineering. Prerequisite: MTH 121.

IME 302 Introduction to Quality Engineering 3 hrs.
Definition of quality, need for quality in products and services, methods of assuring quality, fundamentals of probability and statistics, process control methods, acceptance sampling, designing experiments, a system for quality. Not open to IME majors. Prerequisite: One semester college calculus.

IME 305 Engineering Economy II 2 hrs.
Continuation of IME 301. Economic aspects of engineering decisions including techniques of obtaining cost data, product costing, and break-even analysis. Industrial practices. Prerequisite: IME 301.

IME 311 Introduction to Engineering Statistical Methods 3 hrs.
Engineering data collection and analysis; discrete and continuous probability models; confidence intervals; tests of hypotheses; regression analysis; essentials of statistically designed experiments; engineering application of statistical methods. Extensive use of statistical computer software. Prerequisite: MTH 122.

IME 312 Engineering Statistical Method 3 hrs.
Extension of IME 311: Probability models, multi-variable analysis, step-wise design of statistical experiments, multiple regression, response surface analysis, distribution of random vectors, function of random variable sample statistics. Required semester project. Extensive use of statistical computer software. Prerequisite: IME 311 with C or better.

IME 313 Operations Research I 3 hrs.
Philosophy and techniques of operations research. Emphasis on elementary model building and concepts of optimization, structure of problem solving: linear programming, transportation and assignment algorithms; game theory; network analysis, branch and bound theory; dynamic programming; decision theory involving one stage problems. Prerequisite: MTH 223

IME 314 Operation Research II 3 hrs.
Probabilistic models of operations research: inventory theory, Markov chains, queuing theory, and simulation. Prerequisites: Min. grade of C in IME 311, 313

IME 325 Transport Phenomena 3 hrs.

IME 331 Fundamentals of Materials Science 3 hrs.
Materials science in engineering. Structure of perfect solids: metals, plastics, composites, and ceramics. Structure of imperfect solids: phase equilibria; diffusion, mechanical properties, and plastic deformation; strengthening mechanisms; relation between mechanical properties and microstructural control; organic polymers; electrical conduction in materials; semi-conductors; magnetic materials. Prerequisites: CHM 110, 111, PHY 201.
IME 333 Materials Science Laboratory 1 hr.
Laboratory practices and experience for basic materials science investigations. Mechanical testing, metallographic examination and thermal treatment of metals, non-destructive and destructive testing of non-metallic materials. Corequisite: IME 331.

IME 341 Introduction to Manufacturing Processes 3 hrs.
A laboratory-intensive introduction to manufacturing machinery and processes, tooling, and safety. Product specification interpretation and associated planning for tooling and methods. Material removal; forming operations; casting and molding of metals and plastics; joining techniques. Prerequisite: IME 103, 105.

IME 383 Industrial Management 3 hrs.
Principles of management applied to design of organizations’ physical facilities and operation systems. Not open to IME majors.

IME 385 Introduction to Logistics Engineering 3 hrs.
Logistics terms and definitions; logistics as a design process; supply chain concepts; analyzing, designing, and implementing logistics system. Prerequisites: IME 386, IME 311, IME 313. Corequisite: IME 312.

IME 386 Industrial and Managerial Engineering 3 hrs.
Principles of IME applied to design of an organization’s physical facilities and operating systems. Analysis and measurement of human work applied to work system design. Laboratory and interdisciplinary community projects. Prerequisites: computer competency. Corequisite: 2nd semester of calculus.

IME 395 Solid Modeling and Rapid Prototyping 3 hrs.
Principles of solid modeling and 3D drafting. Solids, surfaces, wire frames, pictorial representation, advance dimensioning, tolerancing, geometric dimensioning and tolerancing, drafting for production, techniques of rapid prototyping. Prerequisites: IME 103, 105, 341.

IME 409 Selected Projects in Industrial and Manufacturing Engineering 1-6 hrs.
Projects may be of an experimental, analytical, or creative nature. Course may be repeated for a maximum of 6 hours credit. Prerequisites: senior standing and consent of instructor.

IME 410 Selected Topics in Industrial and Manufacturing Engineering 1-6 hrs.
Topics of special interest which may vary each time course is offered. Topic stated in current Schedule of Classes. Course may be repeated under different topics for maximum of six hours credit. Prerequisite: consent of instructor.

IME 431 Materials Engineering 2 hrs.

IME 433 Manufacturing Properties of Materials 2 hrs.

IME 441 Materials Processing I 3 hrs.
Principles, techniques, limitations, and applications of metal cutting and forming processes. Phenomena of tool life, tool wear, surface integrity, resultant properties, and tolerances of these operations. Traditional forging, rolling, drawing, and extrusion processes; processing limits and resultant effects on material and component properties. Non-traditional methods and processing economics. Extensive laboratory work. Prerequisites: IME 311, 325, 331, 341.

IME 443 Materials Processing II 3 hrs.
Principles, techniques, limitations, and applications of metal casting and non-metallic molding processes, traditional metal joining processes, fabrication, and assembly. Basic phenomena of near-net-shape manufacturing, tooling and equipment required, tolerances and economics. Emphasis on manufacturing parameters, design, and the resultant effects of material structure and properties. Extensive laboratory work. Prerequisites: IME 311, 325, 331, 341.

IME 445 Computer Aided Manufacturing 4 hrs.
Computer applications to the manufacturing processes of machining (numerical control), material handling (robotics), and the integration of computer aided design (CAD) with computer aided manufacturing (CAM). Laboratory in program generation, simulation, and equipment usage. Prerequisites: IME 341, IME 395.

IME 466 Facilities Planning 3 hrs.
Physical organization of work places and departments to optimize objectives such as material movement, safety, and worker satisfaction. Review of IME methods for work place design and productivity measurement and economic decision making. Computer solutions for layout problems and mathematical models for location problems. Prerequisite: IME 383 or IME 386.

IME 491 Manufacturing Design 4 hrs.
Static and dynamic design, analysis, specification, and financial analysis of manufacturing equipment specific to a particular product. A systems approach to the integration of machine tools, work holding, materials handling, processing, measurement, and operator interface. Laboratory in tool design, modular tool construction, and virtual modeling of tooling systems. Corequisites: IME 445 and senior standing.
IME 493  Mechanical Design        4 hrs.  Design of linkages, cams, gears, gear trains, welded and brazed joints, springs, shafts, and flexible elements; for both static and dynamic loads. Prerequisite: CE 270304.

IME 497  Information Systems Design  3 hrs.  Analysis and design of computer based information systems: definition of data bases, measures of effectiveness, management-staff interface. Case studies from engineering, manufacturing, and service environments. Prerequisite: Senior standing in engineering.

IME 499  Senior Industrial Design Project  4 hrs.  Application of engineering principles to solve a real-world problem. Student works as member of a team assigned to a problem in a manufacturing, processing, service, or governmental organization. Requires a professional written and oral report. Prerequisites: 30 hours of IMET Department courses with a minimum 2.25 GPA; COM 103; consent of course coordinator.

IME 500  Engineering Economy and Costs  3 hrs.  Analysis of the economic aspects of engineering decisions including the time value of money and the techniques of obtaining cost data. Does not count towards MSIE. Prerequisite: graduate standing in engineering or consent of instructor.

IME 503  Engineering Quantitative Analysis  3 hrs.  Probability, random variables, distributions, inference, regression, linear programming, simulation. Does not count towards MSIE. Prerequisites: graduate standing in engineering or consent of instructor.

IME 511  Engineering Statistical Analysis  3 hrs.  Concepts in probability and statistics from practical and theoretical angles. Definition of probability, random variable, distribution, important discrete and continuous distributions, sampling distribution of X-bar, Central Limit Theorem, t, chi-squared and F distributions, estimation, hypothesis testing, regression analysis, and analysis of variance. Prerequisite: IME 503 or consent of instructor.

IME 512  Design and Analysis of Experiments  3 hrs.  Design and analysis of experiments in research, development, and production activities. Experimental designs for evaluating significance of main effects and interactions of several variables. Treatment of problems of measurement, planning, and evaluating programs. Prerequisite: two semesters of statistics or consent of instructor.

IME 514  Introduction to Operations Research  3 hrs.  Mathematical model building and use of deterministic and non-deterministic tools in problem solving. Problem solving structure, linear programming, transportation and assignment algorithms, game theory, networks, branch and bound algorithms, dynamic programming, deterministic and stochastic inventory models, markov chains, queueing theory and simulation. Prerequisite: IME 503 or consent of instructor. Not open to students with credit in IME 313 and 314.

IME 515  Linear Programming & Network Analysis  3 hrs.  Theoretical and computational aspects of linear programming; application to practical problems. Prerequisite: IME 117; MTH 202; consent of instructor.

IME 522  Manufacturing Quality Control  3 hrs.  Analysis of factors affecting product quality during manufacturing; process control charts; process capability studies; error of measurement; sampling plans; motivation programs; quality audit; organization. Prerequisites: one semester of statistics or consent of instructor.

IME 524  Advanced Quality Control  3 hrs.  Comparative study of philosophies of using quality as a business management tool, with special reference to Deming’s Theory of control charts and a study of their strengths and weaknesses. Special control charts such as CUSUM chart, median chart, moving average chart, and their application. The latest published articles used to keep up-to-date in quality technology. Prerequisite: IME 522 or consent of instructor.

IME 526  Reliability Engineering  3 hrs.  Specification, prediction, and evaluation of product reliability and maintainability. Use of models for failure distribution, exponential, Weibull, lognormal and graphical methods for failure data analysis. Test plans and accelerated testing models. Design methods for increasing reliability and maintainability. Prerequisites: IME 511 or consent of instructor.

IME 531  Nonmetallic Materials  3 hrs.  Recent developments and applications of polymeric and ceramic materials. Selection and design criteria, material properties, process engineering, quality considerations, and failure prevention. Prerequisite: IME 331.

IME 533  Composite Materials  3 hrs.  Science and technology of modern composite materials: properties, design, toughening mechanisms, fabrication methods, evaluation, mechanisms of failure and quality assurance. Prerequisite: IME 331.

IME 541  Forming Processes  3 hrs.  Analytical methods in metal forming processes including slab approach, upper bound techniques, slip-line field and viso-plasticity methods. Forging, rolling, extrusion, drawing, sheet forming, near net-shape processes, and CAD/CAM. Prerequisite: IME 441.
IME 543 Material Removal Processes 3 hrs.  
Current and future trends in: mechanics of chip generation; forces and energies in cutting and dynamometry; thermal aspects of machining; cutting tool materials; friction, wear, vibrations and tool life; applications of engineering fundamentals to design and analysis of machining operations with emphasis on computer control. Prerequisites: IME 341; IME 441.

IME 545 Joining and Fabrication 3 hrs.  
Principles of advances in joining and fabrication of engineering materials including metallic, nonmetallic, and electronic materials. Process science and technology with emphasis on casting, welding, and microjoining of electronic components. Physical and mathematical modeling of various processes. Prerequisite: IME 331.

IME 553 Advanced Computer Aided Manufacturing 3 hrs.  

IME 555 Computer Integrated Manufacturing 3 hrs.  
Computer Integrated Manufacturing (CIM); elements of hardware and software within the manufacturing automation environment. Islands of factory automation and their interactions, information flow and Local Area Networks within the CIM architecture, standardization of electronic data and interfaces. Prerequisite: IME 386.

IME 560 Principles of Robotic Programming 3 hrs.  
Programming of industrial robotic manipulators with external inputs, tactile sensing and vision sensing. A design project is required. Cross-listed as ME 560. Prerequisite: graduate or senior standing in engineering or computer science.

IME 561 Simulation of Human/Machine Systems 3 hrs.  
Procedures and rationale for planning, designing, and implementing computer simulation experiments used to analyze human-machine systems in engineering, business, and social sciences. Prerequisites: IME 117; IME 311; MTH 202.

IME 563 Process Engineering 3 hrs.  
The process design function interaction with product design, and the responsibilities within a manufacturing organization. Selection and design of machinery, tools, and methods. Computer aided process design and interactive accessing of machining data and tooling element of group technology and expert systems. Prerequisites: IME 395, 443.

IME 566 Advanced Facility Planning 3 hrs.  
Extension of IME 466. Facility design consideration of internal and external service functions; logistic concerns; design flexibility. Prerequisites: IME 383 or IME 386 or IME 500.

IME 568 Introduction to Expert Systems and Artificial Intelligence 3 hrs.  
Knowledge-based systems design and implementation; expert system shells and programming environments; validation and implementation of expert systems; case studies/laboratories. Cross listed as CIS 588. Prerequisites: two semesters of computer programming and one semester of statistics, or consent of instructor.

IME 570 Selected Topics in Industrial and Manufacturing Engineering 1-3 hrs.  
Topics of special interest which may vary each time course is offered. Topic stated in current Schedule of Classes. May be repeated up to a maximum of 6 hrs. Combined credit for IE 590 and IME 570 may not exceed six hours. Prerequisite: consent of instructor.

IME 583 Production Planning and Control 3 hrs.  
Analysis of production-inventory systems using common planning and scheduling techniques. Mathematical models for project planning, aggregate planning, master scheduling, and inventory analysis. Interface with quality control and computer systems. Prerequisites: IME 386; minimum grade of C in IME 311 and IME 313 or consent of instructor.

IME 584 Advanced Production Planning 3 hrs.  
Planning methods for converting to or creating Just-in-Time and/or group technology systems. Analytical and behavioral aspects. Prerequisite: IME 564; consent of instructor.

IME 585 Human Factors Engineering 3 hrs.  
Functional anatomy and physiology of muscle and skeletal systems and their relationship to work design. Work physiology, kinesiology, and anthropometry in relation to their application in workplace design and hand tool design. Utilization of physical work capacity and job demands for job design, personnel assignment, and assessment of work-rest scheduling. Prerequisites: CE 150; IME 311; IME 386.

IME 587 Occupational Safety and Health 3 hrs.  
Occupational safety and health standards and regulations. Injury and illness statistics. Employer’s responsibilities and bookkeeping requirements. Hazard analysis and systems safety, occupational and environmental hazards and controls. Prerequisites: consent of instructor.

IME 590 Geometric Modeling 3 hrs.  
Computer-based representations of the shape and spatially dependent attributes of real or conceived physical objects. Techniques and concepts needed to couple the digital computer with the techniques of geometric modeling and graphics display for analysis and viewing. Prerequisite: IME 395; MTH 223.
IME 591 Design for Manufacturability 3 hrs.
The design process; interaction of materials, processes, and design; economic considerations; design considerations for machining, casting, forging, extrusion, forming, powder metallurgy; designing with plastics; design for assembly; projects and case studies. Prerequisites: IME 341; IME 395.

IME 592 Tribology 3 hrs.
An introduction to systems approach to tribology, surface topography, physical, chemical, and geometric nature of surfaces. Mechanics of contact between surfaces. Various theories of friction and wear, hydrodynamic, elastohydrodynamic, and boundary lubrication. Frictional instabilities. Rolling contact problems. Application of system methodology to tribological problems in engineering design and manufacturing. Prerequisites: IME 331 or ME 351 or consent of instructor.

Manufacturing Engineering Technology

IMT 200 Co-op Assignment 0 hrs.
Full-time cooperative education assignment for manufacturing engineering technology students who alternate periods of full-time school with periods of full-time academic or career-related work in industry. Satisfactory/unsatisfactory. Prerequisites: sophomore standing in the College of Engineering and Technology, 2.0 overall grade point average at Bradley, approval of engineering and technology co-op coordinator and co-op advisor.

IMT 212 Technical Calculus I (Gen. Ed. MA) 3 hrs.
Differentiation and integration of algebraic functions; applications to technology. Prerequisite: minimum grade of C in MTH 112.

IMT 214 Technical Calculus II (Gen. Ed. MA) 3 hrs.
Continuation of IMT 212: trigonometric, exponential, and logarithmic functions; special integration techniques; conic sections. Prerequisites: minimum grade of C in IMT 212.

IMT 216 Technical Calculus III (Gen. Ed. MA) 3 hrs.
Solution of first- and second-order differential equations; Fourier series; polar coordinates; calculus of functions of two variables. Prerequisite: minimum grade of C in IMT 214.

IMT 222 Statics 3 hrs.
Force systems in two and three dimensions: equilibrium; structures; distributed force; moments of inertia, friction, and work. Prerequisites: PHY 107, IMT 212 or MTH 115.

IMT 232 Physical Metallurgy 4 hrs.
Crystal structures, metallography, destructive and nondestructive evaluation, physical properties, and applications of ferrous materials and alloys. Lecture and lab. Prerequisites: PHY 108, CHM 100.

IMT 262 Applied Statistics & Quality Control 3 hrs.
Application of statistical methods: evaluating and designing experiments; fitting curves; determining confidence levels; aiding in selection and comparison of designs and products for quality control. Prerequisite: IMT 212.

IMT 322 Dynamics 3 hrs.
Study of particle and rigid body motion using principles of force-mass-acceleration, work-energy, and momentum. Prerequisites: IMT 222, IMT 214.

IMT 324 Strength of Materials 4 hrs.
Stresses, strains, shearing, bending moments, design of beams for strength and deflection. Combined stresses and strains, torsion, columns, and axial loaded members. Prerequisite: IMT 222 or equivalent.

IMT 328 Mass and Energy Transfer 4 hrs.

IMT 332 Non-Metallic Materials 3 hrs.
Properties, manufacturing techniques, and applications of nonmetallic materials including plastics, ceramics, composites, and electronic materials. Emphasizes design and processing considerations for quality products. Lecture and Lab. Prerequisite: IMT 232.

IMT 342 Advanced Manufacturing Processes I 3 hrs.
Principles of metal casting and nonmetallic molding processes, powder metal processes, traditional metal joining processes, fabrication and assembly. Tooling and equipment required, manufacturing parameters, tolerances and economics of these operations. Lecture and Lab. Prerequisites: IMT 232, IMT 262, IMT 324, IMT 328, IME 341.

IMT 344 Advanced Manufacturing Processes II 3 hrs.
Applications of machining processes. Analysis of tool forces, heat generation, deflection, operation parameters, and resultant surface qualities and integrity. Traditional forging, rolling, drawing and extrusion processes; processing limits. Processing economics and optimization. Lecture and Lab. Prerequisites: IMT 232, IMT 262, IMT 324, IMT 328, IME 341.

IMT 346 Computer Aided Manufacturing & Automation I 3 hrs.
Principles and applications of numerical control of machine tools. Programming in machine tool code, designing the machining process, and planning for quality. Specification and testing of static and dynamic machine tool accuracy and repeatability. Introduction to computer assisted numerical control programming. Overview of industrial robots, systems, concepts, end effectors, computer control, specifications, justifications, and programming. Lecture and Lab. Prerequisites: IME 105, IME 341. Corequisite: IMT 362.
IMT 362  Metrology and Instrumentation  3 hrs.
Instruments and their application to industrial process measurements; associated control functions of circuits; principles underlying various measuring elements; determination of quantities to be processed; feedback control problems. Pre-requisites: PHY 107, IME 341, IMT 262.

IMT 392  Mechanical Component Design I  3 hrs.
Application of design principles covering: stress analysis, deflection, failure theories, fatigue, gears. Manufacturability and the use of references and manufacturers’ data. Pre-requisites: IMT 232, IMT 262, IMT 324.

IMT 394  Dynamics of Machines  3 hrs.
Velocities, accelerations, and forces in existing mechanisms. Design and analysis of linkages, cams, rolling contact, and drive trains. Prerequisites: IMT 322.

IMT 409  Selected Manufacturing Projects  1-4 hrs.
Individual or small team projects. May be of an experimental, analytical, or creative nature. May be repeated for a maximum of 6 hours credit. Prerequisite: Junior/Senior standing and consent of instructor.

IMT 410  Selected Manufacturing Topics  1-4 hrs.
Topics of special interest which may vary each time course is offered. Topic is stated in current Schedule of Classes. May be repeated for a maximum of 6 hours credit. Prerequisite: Junior/Senior standing and consent of instructor.

IMT 446  Computer Aided Manufacturing & Automation II  3 hrs.
Computer assisted process planning and estimating. Concepts of computer control and feedback mechanisms. Design considerations for machine tools, machining cells, robotics, and flexible manufacturing systems. Lecture and Lab. Prerequisite: IMT 346.

IMT 448  Tooling Systems  3 hrs.
Analysis, design, and layout of manufacturing tooling, including jigs and fixtures, gauging devices, and dies. Analysis of tooling for varying production volume, lead time, process capability, and cost. Laboratory in tooling and layout simulation. Prerequisites: IME 395, IMT 346; IMT 342 or IMT 344.

Translation of product design into specifications for manufacturing equipment and methods, simultaneous engineering, CAD/CAM, and organizational structures. Production volumes, life cycles, flexibility, skills, and cost. Prerequisites: IMT 342 or IMT 344; IMT 346.

IMT 492  Mechanical Component Design II  3 hrs.
Application and design principles. Inelastic stresses, fasteners, weldments, springs, bearings, shafts, clutches, belts, and chains. Manufacturability and the use of references and manufacturers’ data. Prerequisite: IMT 392.

IMT 494  Computer Aided System Design  3 hrs.
Application of design principles to definition of component properties, as determined by vibration, static, dynamic, and thermal loading for production system components and component systems. Techniques include analytical and FEM procedures. Pre-requisites: IMT 216, IMT 394, IMT 492.

IMT 498  Senior Industrial Project  4 hrs.
Application of engineering technology principles to solve a real-world problem. Student works as a member of team assigned to a problem in a manufacturing or processing organization. Requires a professional written and oral report. Prerequisites: 30 hours IMET Department courses with a minimum of 2.25 GPA; COM 103; consent of instructor.
Department of Mechanical Engineering

The baccalaureate program in mechanical engineering is accredited by the Engineering Accreditation Commission of the Accreditation Board for Engineering and Technology, 111 Market Place, Suite 1050, Baltimore, MD 21202-4012 - telephone (410) 347-7700.

FACULTY Professors Mehta (chair), Abou-Hanna, Elbella, Fakheri, Hurt (emeritus), Morris, Okamura (emeritus), Ratcliff (emeritus), Safdari (emeritus), Wessler (emeritus); Associate Professors Deller, Kim, Peterson (emeritus), Podlasek, Zietlow; Assistant Professors Abanto-Bueno, Nair, Post, Reyer.

Mission
The mission of the Mechanical Engineering Department is to produce mechanical engineering graduates who possess the acumen, competence, and skills needed to enter, succeed, and lead in professional practice and/or graduate school. The goal is to provide a learning and nurturing environment that stimulates faculty and students to collaborate in solving practical problems, motivates lifelong learning, and helps them reach their highest potential.

The objectives of the department are that a majority of the graduating students of the mechanical engineering program:
1. will be prepared to enter professional practice or pursue advanced studies
2. will be prepared to succeed in local, regional, national, and international practice
3. will be prepared for lifelong learning
4. will realize satisfaction in the educational investment
5. will be prepared to pursue opportunities in mechanical engineering
6. will be prepared to meet global technological and societal changing needs
7. will be prepared to interact globally with engineering technology

Mechanical engineering is the broadest and most versatile of the engineering professions. It utilizes a combination of human, material, and economic resources to translate ideas and theories into realistic problem solutions that satisfy the needs of society. Problems are solved in such varied areas as energy, environment, robotics, assistance for the handicapped, and air, land, sea, and space vehicles.

Mechanical engineers are particularly concerned with the application of the sciences of mechanics and energy to the generation, utilization, and conservation of energy, and to the design of mechanical systems which control forces, motions, and the flow of materials. No two mechanical engineers do exactly the same thing. Their specific careers are the result of choices depending on personal interests and the changing needs of society.

Computers are integrated throughout mechanical engineering. Microcomputers, graphics terminals, and workstations are incorporated into the laboratory where the students receive hands-on experience with computer-aided design, microprocessor-based instrumentation, measurement and control systems, and the interfacing of microprocessors in the design of mechanical systems.

The breadth of mechanical engineering is illustrated by the organization of the American Society of Mechanical Engineers (ASME), which supports mechanical engineers engaged in many areas. Some of these areas are: applied mechanics, bioengineering, dynamic systems and control including robotics, fluids engineering, heat transfer, materials, management, aerospace, air pollution control, diesel and gas engine power, gas turbines, computer and microprocessor applications, and solar energy.

Mechanical engineers are employed in a variety of service and product industries, in government, and in education. Many are self-employed as consultants. The undergraduate program also offers a particularly broad technical background for persons wishing to enter graduate programs in business, law and medicine.

The faculty believes that engineers must be firmly grounded in the fundamentals of their field and the supporting areas of mathematics, communication, and the sciences, so that graduates will be able to adapt quickly to the rapid changes occurring in our technological society. Therefore the curriculum has been designed to stress the basic tools of knowledge and practice essential to launch one’s professional career and a lifelong process of continued learning.

The spectrum of mechanical engineering includes innovation and creation, research, design and synthesis, analysis, development, evaluation, production, and the marketing of machines, systems, and processes. Central to this activity is the design process which leads to the creation of solutions to real-world problems. Therefore the mechanical engineering curriculum integrates design experiences into all levels of the program and into a majority of the profes-
General education courses must be selected from an approved list for each category. They may be taken in any sequence not necessarily in the semester indicated. The courses selected must provide depth and not be limited to a selection of introductory courses. Other University general education requirements are satisfied by specific required courses.

**ME 410 and 411**—Enrollment in ME 410 and 411 is restricted to mechanical engineering students who are in the fourth year of the program.

†Departmental policy regarding approved technical electives is available in the department office.
Mechanical Engineering with Biomedical Concentration

Biomedical Engineering integrates physical, chemical, mathematical, and computational sciences and engineering principles to study biology, medicine, behavior, and health. It advances fundamental concepts, creates knowledge from the molecular to the organ-system level, and develops innovative biologics, materials, processes, implants, devices and informatics approaches for the prevention, diagnosis, and treatment of disease, for patient rehabilitation, and for improving health. For engineering students who would like to have education in this expanding field, the Mechanical Engineering Department offers a Biomedical concentration that is embedded within the traditional Mechanical Engineering program. This concentration requires an additional two credit hours for graduation.

The biomedical engineering concentration requires the substitution of several courses in the ME curriculum. General Chemistry II (CHM 116 and CHM 117) are substituted for Engineering Chemistry (CHM 112). Students are required to take Principles of Biology II (BIO 124) and Human Anatomy and Physiology (BIO 200 and BIO 203). Students must also take six hours of approved mechanical engineering biomedical electives.

Credit in the following courses must be obtained to meet degree requirements in mechanical engineering, leading to the Bachelor of Science in Mechanical Engineering with a Biomedical concentration.

Freshman Year First Semester
MTH 121 Unified Calculus I .......................................................... 4
COM 103 Oral Communication .................................................. 3
ENG 101 English Composition .................................................. 3
ME 101 Foundations of ME ....................................................... 2
CHM 110/111 General Chemistry/Lab ...................................... 5

Freshman Year Second Semester
MTH 122 Unified Calculus ......................................................... 4
CE 150 Mechanics I (Statics) ..................................................... 3
PHY 110 University Physics I ..................................................... 4
ME 102 Engineering Design Graphics ...................................... 2
CHM 116/117 General Chemistry/Lab ...................................... 5

Sophomore Year First Semester
ME 351 Engineering Materials Science I ................................. 3
MTH 223 Unified Calculus .......................................................... 4
CE 250 Mechanics II (Dynamics) ............................................. 3
PHY 201 University Physics II .................................................. 4
*Western Civ ............................................................................. 3

Sophomore Year Second Semester
ME 301 Thermodynamics I ....................................................... 3
MTH 224 Differential Equations ............................................... 4
CE 270 Mechanics of Materials ............................................... 3
BIO 124 Principles of Biology II .............................................. 4
ME 273 Computational Methods in ME .................................. 3

Junior Year First Semester
BIO 200 Human Anatomy ..................................................... 3
BIO 203 Human Anatomy Lab ............................................... 2
ME 303 Instrumentation & Measurement ................................. 3
ME 308 Thermodynamics of Fluid Flow ................................. 4
ME 341 Engineering Systems Dynamics .................................. 3
EE 327 Fundamentals of Electrical Engineering I ................... 3

Junior Year Second Semester
ME 302 Thermodynamics II ................................................... 2
ME 344 Kinematics & Dynamics of Machines ......................... 3
*ECO 100 Introduction to Economics ...................................... 3
ME 441 Mechanical Control Systems ..................................... 3
* ENG 300-Level Writing .......................................................... 3
* Non-Western Civilization ...................................................... 3

Senior Year First Semester
**ME 410 ME Senior Project I ................................................... 2
ME 342 Design of Machine Elements ..................................... 3
ME 403 Mechanical Systems Lab ............................................ 2
ME 415 Heat Transfer .............................................................. 3
* Human Values ....................................................................... 3
† Appr Bio-Med Elective .......................................................... 3

Senior Year Second Semester
**ME 411 ME Sr Project II ......................................................... 2
* Social Forces ......................................................................... 3
* Fine Arts ............................................................................... 3
EE 328, IME 301, or ME 354 ................................................... 3
EE 328, IME 301, or ME 354 ................................................... 3
† Approved Bio-Medical Elective ............................................... 3

Total Hours 136

*General education courses must be selected from an approved list for each category. They may be taken in any sequence not necessarily in the semester indicated. The courses selected must provide depth and not be limited to a selection of introductory courses. Other University general education requirements are satisfied by specific required courses.

**ME 410 and 411—Enrollment in ME 410 and 411 is restricted to mechanical engineering students who are in the fourth year of the program.

†Departmental policy regarding approved technical electives is available in the department office.
Mechanical Engineering with Energy Concentration

Energy is the lifeblood of industrial economies and is essential for economic growth in developing countries. Today, some of the biggest engineering challenges are related to the production and efficient utilization of limited energy resources. This concentration prepares students to identify and analyze strategies to produce energy and to utilize energy resources in more economically efficient and environmentally friendly ways.

In emerging industrial economies, the demand for new energy sources is growing at over 50 percent per decade, while in more mature growing industrial economies the growth is in the neighborhood of 10 percent per decade despite massive efforts to conserve. This has stimulated the demand for engineers and creative engineering solutions. Energy production resources are often not located in areas of the world with high energy demand, thus energy production and utilization have huge geopolitical implications. Accordingly, engineers must be cognizant of the robust set of governmental rules and regulations associated with the development of engineering solutions to our energy needs.

Students selecting the Energy Concentration within Mechanical Engineering can elect courses related to solar energy, energy management, renewable energy, nuclear energy, electrical generation power plant design, energy conservation, and energy production. Credit in the following courses must be obtained to meet degree requirements in mechanical engineering, leading to the Bachelor of Science in Mechanical Engineering with an Energy Concentration. A list of approved energy electives is available in the department office.

Freshman Year First Semester
MTH 121 Unified Calculus I .........................................................4
COM 103 Oral Communication ..................................................3
ENG 101 English Composition ..................................................3
ME 101 Foundations of ME ...........................................................2
CHM 110/111 Gen. Chem/Lab .....................................................4

Freshman Year Second Semester
MTH 122 Unified Calculus ..........................................................4
CE 150 Mechanics I (Statics) ......................................................3
PHY 110 University Physics I ........................................................4
ME 102 Engineering Design Graphics ........................................2
CHM 112 Engineering Chemistry ................................................3

Sophomore Year First Semester
ME 351 Engineering Material Science I .......................................3
MTH 223 Unified Calculus ...........................................................4
CE 250 Mechanics II (Dynamics) ...............................................3
PHY 201 University Physics II .....................................................4
* Western Civilization ................................................................3

Sophomore Year Second Semester
ME 301 Thermodynamics ..........................................................3
MTH 224 Differential Equations ..................................................4
CE 270 Mechanics of Materials ..................................................3
ME 273 Computer Technology in ME ........................................3
* ECO 100 Introduction to Economics .......................................3

Junior Year First Semester
ME 302 Thermodynamics ..........................................................2
ME 303 Instrumentation & Measurements ....................................3
ME 341 Engineering Systems Dynamics ....................................3
ME 308 Thermodynamics of Fluid Flow ....................................4
EE 327 Fund of EE I ....................................................................3
* ENG 300 Level writing ..............................................................3

Junior Year Second Semester
ME 403 Mechanical Systems Lab .................................................2
ME 344 Kinematics and Dynamics of Machines ..........................3
ME 342 Design of Machine Elements .........................................3
ME 441 Mechanical Control Systems ..........................................3
EE 328 Fundamentals of Electrical Engineering II ......................3
* Non Western Civilization .........................................................3

Senior Year First Semester
** ME 410 ME Senior Project ......................................................2
ME 415 Heat Transfer .................................................................3
IME 301 Engineering Economy ..................................................3
† Design Technical Elective .........................................................3
† Approved Energy Technical Electives .......................................6

Senior Year Second Semester
** ME 411 ME Senior Project ......................................................2
* Gen Ed – Social Forces .............................................................3
* Gen Ed – Fine Arts .................................................................3
* Gen Ed – Human Values .........................................................3
† Approved Energy Technical Electives .......................................6

Total hours 134
Course Descriptions

ME 101 Foundations of Mechanical Engineering 2 hrs.
Nature of mechanical engineering as a profession and as a technological response to human needs. Emphasizes: design process, problem solving, and engineering experimentation. Prerequisite: consent of instructor or department chair.

ME 102 Engineering Design Graphics 2 hrs.
Principles and methods of graphic communications, integrated with creative design problem solving: multi-view projections; pictorial drawing; fundamentals of descriptive geometry, sections, and dimensioning. Prerequisite: ME 101 or consent of instructor.

ME 200 Engineering Co-op 0 hrs.
Full-time cooperative education assignment for mechanical engineering students who alternate periods of full-time school with periods of full-time academic or career-related work in industry. Satisfactory/Unsatisfactory. Prerequisites: sophomore standing in the College of Engineering and Technology, 2.0 overall grade point average at Bradley, approval of engineering and technology Co-op coordinator and Co-op advisor.

ME 273 Computational Methods in ME 3 hrs.
Computational techniques and programming methods for mechanical engineering problems. Prerequisites: PHY 110; corequisites: CE 250; MTH 224.

ME 301 Thermodynamics I 3 hrs.
Emphasis on concepts, laws, and problem solving methodology; properties of materials, especially gases and vapors; simple equations of state; 1st and 2nd laws; introduction to cycles and systems. Prerequisites: CHM 110, 111; PHY 201; MTH 223.

ME 302 Thermodynamics II 2 hrs.
Continuation of ME 301 with emphasis on engineering applications: including more detailed analysis of vapor cycles, power cycles, refrigeration cycles, and heat pump cycles, enhanced second law analysis, and more complex processes that include mixtures, humidification, combustion, and equilibrium. Prerequisite: minimum grade of C in ME 301.

ME 303 Instrumentation and Measurement 3 hrs.
Theory and practice of measurements and instrumentation. Definition of a measurement system that meets specified needs: identification, selection, and specification of instrumentation components. Weekly laboratory. Prerequisites: PHY 201; prerequisites or concurrent enrollment in ME 301, EE 327, ME 273.

ME 308 Thermodynamics of Fluid Flow 4 hrs.
Thermodynamics of fluid flow. Basic concepts of fluid mechanics; utility of the control volume approach to solving conservation equations governing the behavior of compressible and incompressible fluid flows. Design applications in thermal systems, aerodynamics, and convective heat transfer. Prerequisites: minimum grade of C in ME 301, MTH 224. Corequisite: ME 303.

ME 341 Engineering Systems Dynamics 3 hrs.
Engineering systems dynamics, including mechanical, electrical, fluid, and thermal elements. Concepts of modeling. Mathematical methods for understanding and creating desired response behavior of linear systems. Prerequisites: PHY 201; MTH 224; CE 250.

ME 342 Design of Machine Elements 3 hrs.
Application of stress analysis, deflection analysis, dynamic analysis, and materials to the design of mechanical components and machines. How available manufacturing processes influence nature of machine elements. Prerequisites: minimum grade of C in CE 270 and ME 351; prerequisites or concurrent enrollment in ME 303, ME 344.

ME 344 Kinematics and Dynamics of Machines 3 hrs.
Kinematic and dynamic analysis and synthesis of mechanisms and machines; kinematics of linkages, cams and gearing systems; different analysis methods. Static and dynamic forces; balancing of rotating and reciprocating machines. Integration of these topics in solving open-ended design problems. Prerequisites: ME 273, CE 250.

ME 351 Engineering Materials Science I 3 hrs.
Atomic and crystalline structure of solid materials commonly used in engineering applications. Effects of internal structure on physical properties of materials. Prerequisites: CHM 110, 111; PHY 201.

ME 354 Principles of Materials Science Laboratory Practices 3 hrs.
Topics and experiments involving thermal analysis, mechanical measurements, phase transformation, mechanical deformation, diffusion, corrosion, and electrical properties of materials. Prerequisite: minimum grade of C in ME 351 or equivalent.

ME 403 Mechanical Engineering Systems Laboratory 2 hrs.
Student team investigations of thermal and mechanical systems emphasizing definition, planning, design, and execution of experiments involving system modeling and analysis. Written reports and oral presentations are required. Prerequisites: COM 103; minimum grade of C in ME 303, CE 270, ME 308; Prerequisites or concurrent enrollment in 300-level English composition, ME 302, ME 341, ME 415.

ME 407 Power Plant Design 3 hrs.
Comprehensive study of equipment and thermodynamic cycles relating to modern, fossil fueled power plants. Development of thermal-hydraulic designs for heat exchangers, condensers, steam generators, and turbines for a proto-typical plant. Extensive computational parametric studies for understanding salient parameters governing selection of optimal hardware configurations. Prerequisites: ME 302, 308.
ME 409  Mechanical Engineering Projects  1-4 hrs. each semester
Special topics or projects of an experimental, analytical, or creative nature. May be repeated up to 16 credit hours. Prerequisite: consent of instructor.

ME 410  Mechanical Engineering Senior Project I  2 hrs.
Individual or small team investigation of open-ended engineering problems. Emphasis on problem definition, planning, analysis, synthesis, and evaluation. May involve experimentation and/or construction of models. Prerequisites: ME 102, senior standing in ME and consent of instructor. Corequisites: ME 403, ME 342.

ME 411  Mechanical Engineering Senior Project II  2 hrs.
Continuation and completion of senior project begun in ME 410. Prerequisites: ME 410 and consent of instructor.

ME 415  Introduction to Heat Transfer  3 hrs.
Steady state and transient conduction; external and internal forced convection and free convection; radiation; heat exchanger design. Prerequisites: ME 302, ME 308.

ME 441  Mechanical Control Systems  3 hrs.
Sequencing control theory of linear feedback control systems; examples taken from applications encountered by mechanical and manufacturing engineers. Time and frequency response techniques. Analysis and design of fluid powered control systems. Microprocessors and computer control applications. Prerequisites: ME 410 and consent of instructor.

ME 448  Computer Aided Design in Mechanical Engineering  3 hrs.
Design of mechanical systems and components enhanced by applications of computer graphics. Computer graphics hardware characteristics; transformation and projection geometry; space curves and surface presentations; solid geometric representations. User application CAD packages for finite element analysis and mechanisms and systems simulation. Prerequisite: senior standing in ME or consent of instructor.

ME 501  Advanced Thermodynamics  3 hrs.
Laws and concepts of classical thermodynamics: real gases and equations of state; availability; irreversibility; property relations; potential functions; equilibrium; multicomponent systems. Prerequisite: ME 302.

ME 502  Problems in Advanced Dynamics  3 hrs.
Application of analytical and graphical methods to problems involving velocities, accelerations, working and inertia forces. Prerequisite: ME 341.

ME 503  Internal Combustion Engines  3 hrs.
Thermodynamic analysis, thermo-chemistry, and performance characteristics of spark ignition and compression ignition engines. Prerequisites: ME 301; ME 302 or consent of instructor.

ME 504  Experimental Stress Analysis  3 hrs.
Experimental methods of stress analysis. Strain gages and related transducers. Photoelasticity and polariscope. Instrumentation amplifiers, integrated circuits and other electronics used for connecting transducers with a terminating device. Analog to digital conversion. Extensive hands-on laboratory exercises are emphasized. Prerequisite: ME 303, 403 or consent of instructor.

ME 507  Nuclear Energy  3 hrs.
Introduction to nuclear reactors, the physics of nuclear radiations and interactions, the effects of radiation on people, and the issues and potentials that will govern the future use of nuclear energy. Prerequisites: consent of instructor; senior or graduate standing; PHY 201.

ME 509  Solar Engineering  3 hrs.
Nature and characteristics of solar energy as a renewable energy resource. Solar geometry and radiation. Thermodynamics of solar systems; emphasis on 2nd Law considerations. Performance characteristics of collectors, storage systems, house heating systems, cooling and refrigeration, and photovoltaics. Comprehensive design project. Theory and performance characteristics of solar devices and application to design of a comprehensive solar energy system. Prerequisite: ME 415 or consent of instructor.

ME 512  Heat Transfer – Convection  3 hrs.
Non-isothermal flow of fluids in Cartesian, cylindrical, spherical, and other coordinate systems: slug flow, laminar flow, flow entrance effects, property variation effects, and turbulent flow. Prerequisite: ME 415.

ME 515  Intermediate Heat Transfer  3 hrs.
In-depth treatment of the three modes of heat transfer; design applications. Development of analytical and specific numerical skills needed for solving design problems involving heat transfer. Prerequisite: ME 415.

ME 520  Gas Dynamics  3 hrs.
One dimensional flow: wave and shock motion in subsonic and supersonic flow; flow with heat transfer and friction; viscosity effects; similarity. Introduction to multidimensional flow. Prerequisite: ME 308.

ME 521  Intermediate Fluid Mechanics  3 hrs.
Analysis of statics and dynamics of non-viscous and viscous fluids. Derivation of differential equations of motion. Potential flow; vortex motion; creeping motion; introduction to boundary layer theory; turbulence. Prerequisites: MTH 224; ME 308.

ME 533  Propulsion Systems  3 hrs.
Gas turbine analysis; stationary power plants; turboprop, turbojet, and ramjet engines; rocket propulsion; application of thermodynamics. Prerequisite: ME 308.
ME 534 Environmental Engineering – Air Conditioning 3 hrs.
Heating and cooling of moist air; solar radiation; computation of heating and cooling loads; study of heating, ventilating, and cooling systems and equipment; design project. Prerequisite: ME 301.

ME 535 Environmental Engineering—Refrigeration 3 hrs.
Mechanical vapor compression refrigeration cycles; refrigerants; absorption refrigeration; miscellaneous refrigeration processes; cryogenics; semester design project. Prerequisite: ME 301.

ME 536 Industrial Pollution Prevention 3 hrs.
Industrial pollution prevention for small quantity generators such as foundries, metal fabrication, electroplating, electronics, soldering, wood products, cleaning, degreasing, and coating. Study of emerging technologies for pollution prevention. Relationships among energy consumption, waste production, and productivity enhancement. Actual plant assessments. Prerequisite: consent of instructor.

ME 537 Building Energy Management 3 hrs.
The energy problem. Energy consumption patterns in existing and new buildings. Analysis of energy saving strategies for existing buildings; developing designs for new, energy efficient buildings, including reliability, comfort, and economic considerations. Formal oral presentations.

ME 540 Advanced Mechanical Vibrations 3 hrs.
Principles of vibrations in one or more degrees of freedom; application to machine members. Prerequisite: ME 341; MTH 224.

ME 544 Mechanical Systems Analysis 3 hrs.
Mathematical modeling of mechanical, electrical, pneumatic, hydraulic, and hybrid physical systems emphasizing a unified approach such as the Bond graph technique. Laplace, state-variable, and matrix formulation of models. Systems response characteristics, prediction, and analysis. Prerequisite: ME 341.

ME 547 Fluid Power Control Systems 3 hrs.
Definition and scope of fluid power control systems. Fluid properties. Continuity and power balance equations. Components function, operation, and dynamic performance. Use of perturbation theory for developing linearized transfer functions. Application of conventional control theory. Prerequisites: ME 301, ME 308.

ME 548 Optimization of Mechanical Systems 3 hrs.
Development and application of optimization techniques in design of engineering systems and elements; mathematical modeling and formulation of design problems for optimization; different optimization methods including linear, non-linear, geometric and dynamic programming; shape optimization. Emphasis on development and choice of appropriate search methods, sensitivity analysis, and programming. Prerequisite: senior standing in engineering or consent of department.

ME 549 Microprocessor Interfacing in Mechanical Systems 3 hrs.
Principles of microprocessor hardware and software; integration of microcontroller hardware and software in mechanical systems for data acquisition and control purposes (e.g., robotics, internal combustion engine monitoring systems, and pneumatic controls). Intensive hands-on laboratory exercises and practical problem solving. Introduction of "mechatronics." Prerequisites: ME 303; EE 328; proficiency in at least one computer language; or consent of instructor.

ME 554 Fracture of Solids 3 hrs.
Mechanical failure caused by stresses, strains, and energy transfers in mechanical parts: conventional design concepts and relationship to occurrence of fracture; mechanics of fracture; fracture toughness; macroscopic and microscopic aspects of fracture; high and low cycle fatigue failures; creep; stress rupture; brittle fracture; wear; case studies of failure analysis. Emphasis on time-dependent failures. Prerequisites: ME 354 and CE 270.

ME 556 Mechanics of Composite Materials 3 hrs.
Mechanical behavior, analysis, and design of various advanced composite materials: introduction to composite materials and their applications; elasticity of anisotropic solids; micromechanics of fiber reinforced composites and particulate composites; short fiber composites; macromechanics of laminated composites; thermal stresses; failure criteria; fracture and fatigue, reliability, testing, and design of composite materials. Emphasis on developing simple microcomputer programs for analysis. Projects involve curing and testing composites. Prerequisite: CE 270.

ME 557 Advanced Design of Machine Elements 3 hrs.
Review of mechanical testing, 3-D stress-strain relationship, complex and principal states of stress, yielding and fracture under combined stresses, fracture of cracked members, stress and strain based approaches to fatigue, creep damage analysis, and plastic damage analysis as applied to the design of machine elements. Prerequisites: ME 342, ME 351, ME 354 with a minimum grade of C or graduate standing in ME. Requires consent of instructor if non-ME student.
ME 560  Principles of Robotic Programming  3 hrs.
Programming of industrial robotic manipulators with external inputs, tactile sensing, and vision sensing. A design project is required. Cross-listed as IME 560. Prerequisites: graduate or senior standing in engineering or computer science.

ME 562  Analysis & Design of Robotic Systems  3 hrs.
Underlying theories of robotic systems; implications for engineering design. Kinematic, dynamic, and control analysis of robotic arms; robotic systems design. Plant visits to observe robots in action; hands-on experience using open-loop and closed-loop robots. Prerequisites: ME 344, 403, 441; EE 328; or consent of department.

ME 573  Methods of Engineering Analysis  3 hrs.
Application of principles of analog and digital computers and numerical methods to solve mechanical engineering problems. Prerequisites: ME 341; ME 273; MTH, 224.

ME 577  Finite Element Methods in Engineering  3 hrs.

ME 580  Fundamentals of Biomedical Engineering  3 hrs.
Human body as a thermal and mechanical system. Mathematical modeling. Thermodynamics aspects of biological systems. Energy balance of a human body as a closed and open thermodynamic system. Static and dynamic analysis of a human body as a mechanical system. Principles of instrumentation used in the medical field. Interfacing of microprocessors with rehabilitative devices. Demonstrative laboratory exercises. Field trips. Prerequisites: ME 301, 302, 303; BIO 200.

ME 582  Medical Imaging  3 hrs.
Introduction to the common methods and devices employed for medical imaging, including conventional x-ray imaging, x-ray computed tomography (CT), nuclear medicine (single photon planar imaging), single photon emission computed tomography (SPECT), and positron emission tomography (PET), magnetic resonance imaging (MRI), and ultra-sound imaging. The physics and design of systems, typical clinical applications, medical image processing, and tomographic reconstruction. Cross-listed as EE 582. Prerequisites: Senior standing in engineering or consent of instructor.

ME 591  Topics in Mechanical Engineering  1-3 hrs.
Topics of special interest which may vary each time course is offered. Topic stated in current Schedule of Classes. Graduate students may repeat the course under different topic names up to a maximum of 9 credits. Prerequisite: consent of instructor.
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College of Liberal Arts and Sciences

Mission
The mission of the College of Liberal Arts and Sciences is to:
1. Provide an environment for students to develop an awareness of the great issues facing humanity.
2. Encourage students to be imaginative, critical, intellectually curious individuals, who will aspire to lifelong learning.
3. Develop career interests and abilities appropriate to the needs of students.
4. Foster in students communicative and evaluative competencies.
5. Develop self-renewing people in a value-centered interdisciplinary, intercultural, and humanistic context that puts career goals of students into a societal context in ways that will have significant impact on contemporary and future society, and will bring continuing personal satisfaction to them.

Thus students are
- Assisted in effectively relating their learning to the world.
- Helped in establishing an individual identity that is rewarding.
- Prepared to adapt beneficially to change.

In fulfilling its mission, the College of Liberal Arts and Sciences accomplishes several major functions. In conveying what it means to be a scientist—artist—scholar—human being, it offers a wide variety of courses and subjects to the student interested in a liberating education; it provides programs leading to degrees with specialization in over 20 areas of study; and it functions as a service unit for other colleges offering specialized professional curricula. The College confers two degrees, the Bachelor of Arts (which requires a foreign language) and the Bachelor of Science (no foreign language requirement); the degree received depends upon the course of study of the individual student.

As part of a medium-sized university, the College is large enough to provide diversity in curricula while retaining a tradition of individual attention for its students. The faculty of the College consists of a group of carefully selected teacher-scholars interested in students.

Curricula
The College of Liberal Arts and Sciences offers curricula leading to majors in over twenty areas of study. The major consists of not fewer than 24 semester hours of courses taken in one department, or in an approved interdepartmental program, including not fewer than 20 semester hours in courses above the freshman level. All of the departmental and interdepartmental curricula require a nucleus of general education courses in humanities, social sciences, and sciences. Each student in the College must declare a major in one of the following fields: administration of criminal justice (interdepartmental); biochemistry; biology; cell and molecular biology; chemistry; computer science; computer information systems; economics; English; foreign languages (French, German, Spanish); environmental science (with options in biology, chemistry, and physics); history; individualized major program; international studies; mathematics; medical technology (interdepartmental, biology and chemistry); philosophy; physics; political science; psychology; religious studies; social work; sociology.

Secondary Education Curricula
Students who wish to prepare for a teaching career in the secondary schools may fulfill the requirements for a teaching certificate while working on a degree program in the College of Liberal Arts and Sciences. Certification requirements are independent of graduation requirements; students may graduate, as long as they have met the graduation requirements of the University, the College, and their department, without being certified. Requirements for certification are added to those for graduation, but, in most cases, the student may meet certification requirements through planned use of elective hours. Secondary education requirements are outlined in detail in the College of Education and Health Sciences section of this catalog.

Preprofessional Preparation for the Health Professions
The College has long prepared preprofessional students interested in the health professions. For example, the department of biology offers a specific curriculum leading to a preprofessional baccalaureate degree; the departments of chemistry and physics also offer preprofessional curriculum options. However, experience has shown that virtually any
major is acceptable for professional education provided the student is careful to select, as electives, those courses necessary for admission to the professional school of his or her choice. Biology, chemistry, psychology, and physics are appropriate majors, but students majoring in the social sciences or the humanities have also been admitted to medical or dental school. Preprofessional students who prefer to design their own major or to obtain a general background in the College without concentrating their courses in a major, may do so under the liberal arts and sciences individualized major program.

Pre-Law Curriculum
Most American law schools desire their students to have a broad educational background and do not generally recommend any particular undergraduate major. Courses emphasized as effective preparation include those which contribute to organized and precise thought, to the proper use of English, and to an expanded perspective of one’s social environment. Of basic importance is the ability to communicate competently in oral and written form; facility in this respect should be cultivated through both appropriate course work and independent effort.

While virtually any major is acceptable, breadth of knowledge is vital. The academic program should, therefore, provide significant coverage of the humanities, social sciences, and physical sciences. In addition, students will further benefit by undertaking, on their own initiative, a reading plan to supplement their formal study.

Pre-law students who prefer to design their own major or to obtain a general background in the College without concentrating their courses in a major, may do so under the liberal arts and sciences individualized major program.

Experiential Learning
The programs of the College provide opportunity for "hands on" learning through cooperative education/internships, practica in clinical settings, work/study opportunities, research participation, and undergraduate assistantships. These experiences link the world of the intellect and the world of work and practical affairs.

Cooperative Education/Internship Program
The College participates with employers in an optional Cooperative Education/Internship Program. Students either alternate periods of full-time study with full-time employment or have part-time employment while attending classes. The program provides academic- or career-related work experiences. To be eligible, the student must have sophomore standing and a 2.0 minimum overall grade point average at Bradley and in the College of Liberal Arts and Sciences.

LAS 301 Cooperative Education/Internship 0-9 hrs.
Cooperative education or internship experience. May be repeated for a total of 9 hours credit with a combined total of 9 hours available for all Cooperative Education & Internship work assignments. The number of hours awarded for the work assignment will be dependent upon the number of total hours worked during the semester. Pass/Fail. Prerequisites: sophomore standing in the College of Liberal Arts and Sciences, 2.0 Bradley overall grade point average and LAS cumulative grade point average, consent of LAS Co-op and internship coordinator and Co-op and internship faculty advisor.

Graduation Requirements:
The College confers two degrees, the Bachelor of Arts (which requires a foreign language) and the Bachelor of Science (see University requirements for the B.S. degree). The requirements for the degrees are outlined below; the degree received depends upon the course of study of the individual student.

Students who maintain continuous enrollment and who complete work toward the baccalaureate degree within five years from the date of entry may graduate under either the catalog in effect at the time of entrance or under the catalog in effect at the time of graduation. A change in major could mean meeting new requirements in force at the time of the change as a condition for acceptance into that major. Students whose work has been interrupted for one or more semesters may be held to requirements in effect at the time of their re-enrollment.

All-University Requirements:
The student must satisfy the general university requirements as to residence, grade point average, and required courses. See "Academic Regulations" for these requirements.
1. Candidates for the Bachelor of Arts degree must present credit for two years of college-level foreign language or its equivalent. The foreign language requirement is outlined in detail under Department of Foreign Languages.
2. Candidates for the Bachelor of Science degree must successfully complete at least 6 hours of courses selected from physical and natural science, mathematics, computer science, or quantitative methods in addition to the hours used to fulfill the University general education requirements. See requirements for the B.S. degree.
3. Transfer students from another institution or from within the University who have successfully completed a minimum of 5 semester hours of English composition shall not be required to take additional hours of composition. CLEP composition credit may substitute for ENG 101, but not for the junior-level composition course.
College Requirements:
In addition to the University requirements, the student must satisfy the following requirements which are concurrent, not cumulative:

1. A minimum of 90 semester hours credit (toward the 124 required for graduation) in courses offered in the College. A maximum of 6 hours in art, music, communication (except 103), and theatre may be included in the 90 hours. Likewise, a maximum of 6 hours in economics and family and consumer sciences may be included in the 90 hours. Thus, a maximum of 12 hours from among certain courses offered outside of the College may be counted toward the 90 hours. CLAS/economics majors may count all of their major hours toward meeting the 90 hour requirement.

2. A minimum of 30 semester hours credit (toward the 40 required for graduation) in courses numbered 300 or above offered by the College.

3. A second course in the human values category of the University general education requirements. Thus each CLAS major must have credit for two human values courses—one in philosophical analysis and the other in literary analysis.

4. All students majoring in CLAS are required to complete a course in Western Civilization and Non-Western Civilization.

Baccalaureate Articulation: Associate in Arts or Associate in Sciences Graduates
A transferring student who has completed an Associate in Arts or an Associate in Science degree in an Illinois public community college may expect to earn a baccalaureate degree from a College of Liberal Arts and Sciences program upon the completion of two additional years of course work (normally 60-64 semester hours) provided that the following qualifications are met:

1. that the transferring student does not change his or her intended major or area of specialization
2. that the College has a program in the transferring student’s intended major or area of specialization
3. that the 60-64 semester hours of course work represented in the associate degree include only baccalaureate-oriented, college-level courses which appear in the ICCB master course file.

Major Requirements:
The student must complete a major of not fewer than 24 semester hours in one department or in an approved interdepartmental program, including not fewer than 20 hours in courses numbered 200 or above. Because some curricula require more than these minima and/or collateral work in other subject areas, students are urged to check requirements carefully with advisors for their major programs. The student must have a grade point average exceeding 2.0 in all courses numbered 200 or above in the department.

Transfer students who enter the College with 16 or more hours of the major already completed and are candidates for a degree must earn at Bradley at least nine hours in the major field with a grade point average exceeding 2.00. The department or program chair shall have the privilege of waiving some or all of these required nine hours but may not reduce the overall total for the major below 24 hours, 20 of which must be above the freshman level.

Secondary Teacher Preparation
Students who wish to prepare to teach in the secondary schools may seek to fulfill the requirements for a teaching certificate while they are working for the baccalaureate degree in the College of Liberal Arts and Sciences. Bradley University will recommend students for a teaching certificate if they have obtained their degree at Bradley and have fulfilled the requirements listed in the College of Education and Health Sciences section of this Catalog. Recommendation for a certificate is, however, considered a privilege and is not automatically granted simply because a student has fulfilled the technical requirements. The student must also receive approval from the faculty of the field in which he or she plans to teach, the Dean of the College of Liberal Arts and Sciences, the chair of the Department of Teacher Education, and the Dean of the College of Education and Health Sciences.

Certificate requirements are completely independent of graduation requirements. It should be noted that the State, for certification purposes, counts all course work, regardless of level, taken in the academic area. Our requirements for a 24-hour major are thus usually more demanding than the State’s, and the student may be able to reach 32 hours by counting all course work in that area.

Secondary education requirements are outlined in greater detail in the section of this catalog under College of Education and Health Sciences.

Global Scholars Program
Academic Mission
The mission of the program is to provide:

• A cross-disciplinary program of undergraduate study designed to offer students a background in global studies. The term “global” means a phenomenon or force that is worldwide in scope. We use the term to include both global systems and the diversity of cultures therein.

• A focus on diversified study within the College of Liberal Arts and Sciences aimed at expanding cross-cultural and global knowledge, buttressed by foreign languages, general education courses, and study abroad.

• A spotlight on global knowledge that is useful for developing information and skills needed to succeed in a competitive job market.
Program Information
The Global Scholars Program provides a unique opportunity for students majoring in the College of Liberal Arts and Sciences to gain substantive exposure to a broad spectrum of global and cultural forces. The required coursework spans several academic disciplines, introducing students to relevant content framed in a global setting. As a broad cross-disciplinary concentration, this program seeks to stimulate students’ intellectual involvement in global affairs and helps those students wishing to pursue future international opportunities.

Students electing to enroll in this program will earn the designation of “Global Scholar” in recognition of their achievement. They may do so within any academic major in the College of Liberal Arts and Sciences. The designation confers:
- Formal acknowledgement by the dean of the college
- Recognition at the college Honors Day Ceremony

Program Requirements

Foreign Languages (0-8 hours)
Students must complete one of the following course sequences: FLF 101 and 102, FLG 101 and 102, FLH 101 and 102, or FLS 101 and 102 (elementary French, German, Hebrew, Spanish or equivalent.) Students with sufficient training in foreign languages may fulfill this requirement by appropriately passing the foreign language placement exam, administered by the Department of Foreign Languages.

Students who complete a university-approved language program abroad will fulfill both the foreign languages and the study abroad requirements.

Global Forces (6 hours)
Two courses from the following; only one can be from student’s major:
- BIO 300 Population, Resources and Environment
- CHM 300 Chemistry and Civilization
- GES 300 Oceanography: The Human Perspective
- HIS 339 Women in Global Perspective
- IS 250 Theory and Practice of World Politics
- IS 415 Transnational Forces in World Politics
- PHL/PLS 308 Modern Political Philosophy
- PLS 205 Introduction to Comparative Politics
- PLS 208 Fundamentals of International Relations
- PLS 317 International Law
- PLS 318 International Organization
- PLS 319 International Political Economy of the Industrialized World
- PSY 406 Issues in Theoretical Psychology: Cross-Cultural Psychology
- RLS 101 Comparative Religion
- RLS 332 Religions of the World
- SOC 300 Cross-Cultural Perspectives on Gender
- SOC 311 Comparative Family Systems
- SOC 326 Sociology of Globalization

Cultures from Around the Globe (6 hours)
Two courses from the following; only one can be from student’s major
- ENG 123 European Writers
- ENG 385 Literatures of Europe
- ENG 381 Literatures of Asia
- FLS 325 Introduction to Literature
- FLS 342 Survey of Hispanic-American Literature I
- FLS 343 Survey of Hispanic-American Literature II
- HIS 104 Non-Western Civilization: The Middle East Since Muhammad
- HIS 105 Non-Western Civilization: Latin America
- HIS 336 Early Non-Western History
- HIS 337 Modern Non-Western History
- IS 182 Fundamentals of Contemporary Asian Civilization
- IS 260 Fundamentals of Contemporary Islamic Civilization
- IS 275 Problems of the Developing World
- IS 285 East Asia in the Modern World
- IS 322 Latin America in the International System
- IS 340 Africa in the International System
- IS 363 Middle East Nations in International Affairs
- IS 440 Problems of Southern African Development
- RLS 331 Religions of the Eastern World
- RLS 336 Buddhism and Asian Civilizations
- SOC 301 Peoples & Cultures of the Non-Western World

Study Abroad (3 hours)
Studying abroad gives students a deeper understanding of the institutions, history, and languages of other societies and cultures. Students in the Global Scholars Program must participate in a university-approved study abroad program for a minimum of 3 credit hours. Bradley provides a variety of study abroad options, including programs offered during Bradley’s Interim and Summer Sessions as well as during the academic year. Study abroad is available to students throughout their academic career in a wide range of academic disciplines at over twenty academic institutions in eighteen countries.

Participants taking any of their required Global Scholars coursework abroad will receive credit for fulfilling both the course and the study abroad requirement. For specific information concerning the Study Abroad option offered by the Bradley University Study Abroad Program, please visit the Study Abroad Program Web site bradley.edu/academics/abroad/.

Engineering Physics
This intercollegiate program is sponsored jointly by the Department of Physics and the College of Engineering and Technology. Students in this program choose an advisor from a committee of physics and engineering faculty charged with overseeing the program. The degree is conferred through the College of Engineering and Technology. Further details are provided in the College of Engineering and Technology section of this catalog.
**Washington Semester**
Bradley University has a cooperative arrangement with American University for well-qualified students to study in one of these programs: the Washington Semester in American Politics, the Foreign Policy Semester, the Economic Policy Semester, the Justice Semester, and the Journalism Semester. A package of seminars with public and private officials, internships, research, and coursework provides students with a first-hand view of their area of interest. A full semester of credit is earned through the program.

**Interdisciplinary Courses**

**LAS 101 Arts and Ideas Seminar** 1 hr.
Seminar on selected intellectual and artistic topics which may vary each time course is offered. Topic stated in current Schedule of Classes. May be repeated under a different topic. Maximum of three hours credit may be earned.

**LAS 305 Study Abroad Seminar** 1 hr.
Study of the cultural and historical contexts of the study abroad site. Prerequisite: registration for study abroad interim session.

**SCI 101 Topics in Investigative Science for Educators** 4 hrs.  
(General Ed. FS)
Laboratory-based biological and physical science. Content developed along interdisciplinary themes. Course taught in an inquiry/investigative format and provides an introduction to investigate science applications in Pre K-12 classroom settings. Course may be repeated once under different topic. Prerequisite: 12 hours of college-level courses.

**SCI 501 Topics in Investigative Science for Educators** 3 hrs.
Laboratory-based biological and physical science. Content developed along interdisciplinary themes. Course taught in an inquiry/investigative format and includes application to Pre K-12 classroom settings. Course may be repeated under different topic. Credit will not be given for SCI 501 students who have obtained credit for SCI 101 under the same theme. Registration is not open to undergraduate or graduate students enrolled in a natural science degree program. Prerequisite: Concurrent enrollment in ETE 550.
Administration of Criminal Justice

FACULTY COORDINATING COMMITTEE  Curtis (Political Science), Hall (Political Science), Guzman (History), Salamini (Sociology), Zant (Sociology) Director; Adjunct Instructors Higgins, Ogolin, Wyant.

The major in administration of criminal justice is an interdepartmental program of the faculties of history, political science, and sociology. Illinois Central College cooperates by offering lower-division courses in criminal justice on the Bradley campus.

The mission of the administration of criminal justice program at Bradley University is to provide our students with a thorough understanding of the institutions, structures, and processes through which society defines, perceives, and responds to deviance. Graduates of our program will have numerous career options, including graduate study in the discipline; pursuit of a career in the law; attainment of a professional degree in cognate disciplines such as public administration, social work, and correctional counseling; responsible careers in the growing private security industry; and line and specialist positions in service delivery organizations within the various criminal justice systems.

Transfer Students
Transfer students who have earned the Associate of Arts degree in criminal justice will have fulfilled the designated ACJ course work required for the degree.

Students who elect the academic exploration program or another major may change to administration of criminal justice if they have a cumulative GPA exceeding 2.0 and a GPA exceeding 2.0 in previously taken administration of criminal justice major requirements (see list).

Major Requirements

Lower Division Courses (21 hours)
ACJ 110 Introduction to Criminal Justice ..........................3
ACJ 225 Criminal Law ....................................................3
ACJ 250 Police Organization and Administration .............3
PLS 105 Introduction to American Government ...............3
PLS 202 State and Local Government ............................3
SOC 100 The Sociological Perspective ............................3
HIS 201 American History: Social ..................................3

Research Requirement (3 hours)
PLS 209 Scope and Methods of Political Science or
SOC 240 Research Methods ...........................................3

Upper Division Courses (21 hours)
PLS 360 Judicial Politics ..................................................3
PLS 419 Introduction to Public Administration or
PLS 420 Public Management .........................................3
SOC 430 Perspectives on Deviance ..................................3
Two of the following courses .........................................6
SOC 331 Correctional Policies & Society
SOC 332 Juvenile Delinquency
SOC 333 Sociology of Violence
SOC 334 Crime & Society approved SOC 390 courses.
One of the following courses ..........................................3
SOC 302 The Sociology of Diversity
SOC 312 Social Inequality
SOC 313 Race, Ethnicity and Power
SOC 342 Social Policy
HIS 309 History of U.S. Law Enforcement ........................3

Internship Requirement (3 hours)
PLS 480 Internship in Political Science or
SOC 391/392 Internship in Applied Sociology .................3

Strongly Recommended Electives (not required)*
ACJ 130 Introduction to Investigation
HIS 303 American Urban History
PLS 440 Public Policy Analysis
PLS 422 Urban Politics
PLS 459 Constitutional Law
PLS 460 Constitutional Law
SOC 322 Self and Social Interaction
SOC 340 Demography and Urban Studies

* Recommended electives also include any of the alternative courses noted above which were not taken as a requirement.

Please note: To graduate, ACJ majors must have a cumulative GPA exceeding 2.0 for all courses numbered 200 or above in the ACJ major requirement.
Course Descriptions

ACJ 110  Introduction to the Criminal Justice System  3 hrs.
An introduction to the criminal justice systems in America, including policy making, law enforcement, prosecution, adjudication, and corrections. In addition to the institutions of the various systems, the major theoretical perspectives for explaining deviance and the societal response to deviance will be explored.

ACJ 225  Criminal Law  3 hrs.
An analysis of the history and development of the criminal law as a system of social control. Coverage includes the scope, purposes, and general principles of the criminal law as well as the elements of specific crimes. Prerequisite: ACJ 110.

ACJ 250  Police Organization & Administration  3 hrs.
An introduction to the principles of organization and management of law enforcement bureaucracies, with an emphasis on the tasks faced by managers and the guiding principles used to complete these tasks. Students will consider the unique problems of managing a police bureaucracy in a democratic society. Prerequisite: ACJ 110.

Not required for the major:

ACJ 130  Introduction to Investigation  3 hrs.
An exploration of the principles of criminal investigation, including crime scene analysis, collection and analysis of physical evidence, the use of physical evidence in prosecution of crime, and the rules governing the introduction of physical evidence in court. Social and political issues affecting criminal investigations will also be covered.

ACJ 230  Introduction to Computer Forensics  3 hrs.
Provides an overview of computer forensics, investigation techniques, and relevant laws. Covers computer operating system architectures and disk structures and their relevance to computer forensics. Cross listed as CIS 230. Prerequisite: previous computer class or consent of instructor.

ACJ 330  Advanced Computer Forensics  3 hrs.
Provides students an extensive look at computer forensics and formal techniques used in computer forensics in a lab environment. Formal techniques for conducting a computer forensics investigation including record-keeping are covered. Students will conduct computer forensic exams and participate in practical computer forensic examination exercises. Cross listed as CIS 330. Prerequisites: CIS 230 or ACJ 230.
**African-American Studies**

**FACULTY** Professors Gill (Political Science), Lermack (Political Science); Associate Professors Conley (English), Gorin (Sociology), Kasambira (Education), Worley (English).

The African-American studies program at Bradley is the scholarly pursuit of knowledge about the history, philosophies, ethics, psychologies, attitudes, religious experiences, and cultural manifestations as they exist within the context of African-American people in American society, i.e., the African-American experience. African-American studies also has a subsidiary, yet corollary, focus on African and Caribbean ideologies as they influence the progression and development of the African-American community.

In addition, African-American Studies at Bradley has a multidisciplinary approach with a two-fold emphasis: (1) to investigate the African-American experience from within the context of criteria established by Afrocentric scholars; and (2) to investigate the African-American experience from a comparative basis, i.e., the established criteria of Eurocentric scholars. Inherent in that approach is one of the primary objectives of an institution of higher learning: to develop the critical and analytic skills of all students in assessing factual and subjective information. A subsidiary objective is to provide students with the skills to understand, carefully and adequately, the particulars of “race” as they extend to universal (national and international) implications. Further, African-American studies is also an approach to understanding self, community, and nation through concrete examples taken from the African-American experience. Since universal ideas are equally implicit in all humans, regardless of social status, gender, sexual preference, religious persuasion or race, African-American studies is an attempt to illustrate how African-Americans are the “same but different” in terms that transcend time, place and generic differences. Although African-American studies will use the context of the African Diaspora as a means to explore predispositions about gender, status, religion or race, the overall objective is to help students become critical thinkers.

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**Minor in African-American Studies (15 Credit Hours)**

**Required Courses (6 Credit Hours)**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>AAS 200</td>
<td>Introduction to African-American Studies</td>
<td>3</td>
</tr>
<tr>
<td>AAS 400</td>
<td>Directed Research in African American Studies</td>
<td>3</td>
</tr>
</tbody>
</table>

**Elective Courses (9 Credit Hours)**

**Category I (select two)**

- IS 275 Problems of the Developing World
- IS 440 Problems in African Development
- ENG 129 African American Literature
- SOC 313 Race, Ethnicity and Power
- ENG 329 Studies in African-American Literature

**Category II (select one)**

- PLS 360 Judicial Politics
- PLS 422 Urban Politics
- ECO 313 American Economic History

**Total Hours** 15

A 2.0 grade point average in African-American studies courses is required for satisfactory completion of the African-American studies minor. It is expected that each African-American studies minor will have a knowledge of a language other than English.

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**Course Descriptions**

**AAS 200 Introduction to African-American Studies** 3 hrs.

Interdisciplinary course; examines changing economic, political, and social status of African-Americans. Examines contemporary issues in African-American studies.

**AAS 400 Directed Research in African-American Studies** 3 hrs.

Directed readings or research for a paper which analyzes, synthesizes, and interprets an area of African-American studies. Prerequisites: AAS 200; 9 hrs. of African-American studies elective courses; or consent of instructor.
Asian Studies

**FACULTY COORDINATING COMMITTEE**: Brown (History); Getz (Religious Studies), Director; Hogan (Sociology); Palakeel (English); Schmidt (Management Information Systems).

The program in Asian studies is designed to provide a broad understanding of the political, social, economic, and cultural forces that have influenced and continue to shape Asia. The Asian studies area is defined to include South Asia, Southeast Asia, Inner Asia, and East Asia. Students with an interest in Asia who are majoring in international studies, international business, and relevant liberal arts disciplines will especially benefit from this program.

**Minor in Asian Studies**

A minor in Asian studies will require completion of 18 credit hours from the list of approved courses. There will be six hours of required courses. The remaining twelve hours will be made up of elective courses, with no more than six elective hours taken from any one discipline. Courses in Asian languages are recommended. A student may transfer up to six semester hours in an approved Asian language. Students are strongly encouraged to take advantage of study abroad programs at Bradley University in areas listed above.

**Required Courses** ............................................................6
Choose two
- HIS 336 Early Non-Western History
- IS 182 Fundamentals of Contemporary Asian Civilization
- RLS 331 Religions of the Eastern World

**Electives** ........................................................................12
Choose four
- ART 243 Non-Western Art
- HIS 107 Modern Japan, 1860-Present
- HIS 324 Barbarians in History
- HIS 337 Modern Non-Western History
- IS 285 East Asia in the Modern World
- IS 381 East Asian International Relations
- IS 385 Problems of Contemporary Asia
- RLS 338 China: Religion and Culture
- RLS 340 Japan: Religion and Culture
- SOC 311 Comparative Family Systems
- SOC 410 Sociology of the World System
- FLJ 101, 102 Elementary Japanese
- FLJ 201, 202 Intermediate Japanese
- ENG 381 Literatures of Asia
Department of Biology

FACULTY Professors Foster, Frase, Galsky, McConnaughay, Stabenau (chair); Associate Professors Cady, Fan, Gehring, Morris, Stephens; Assistant Professors Johnson, Stover.

The Department of Biology offers and participates in several programs leading to a baccalaureate degree. Programs are designed for students interested in medicine, dentistry, veterinary medicine, biology, secondary education, cell and molecular biology, biochemistry, environmental science, and medical technology. The latter four programs are described elsewhere in this catalog.

All students choosing the preprofessional concentration, the biology concentration, the cell and molecular biology concentration, or the secondary teaching concentration must take the following courses and must earn a grade of C or better in all required biology courses:

- BIO 123, 124, 223, 224
- CHM 110, 111, 116, 117, 250
- MTH 115 or 121 (MTH 116 or 122 highly recommended)
- PHY 107 and 108

In addition to the above, each student must complete the following additional requirements with a grade of C or better in each biology course taken:

- At the completion of 90 semester hours, the student must have credit for BIO 123, 124, 223, 224; CHM 110, 111, 116, 117, 250; and one semester of calculus. Students not meeting these requirements will not be allowed to enroll in other biology courses until requirements are met.
- Students with more than 30 semester hours transferring into biology programs from other Bradley majors must have a GPA of 2.25 or greater and must have completed at least one semester each of introductory biology, introductory chemistry, and calculus. Students with 30 or fewer hours will be assessed on a case-by-case basis.

Preprofessional Concentration

Choose a minimum of one course from each of the following categories.

- **Cellular-Molecular Biology**
  - BIO 345, 365, 366, 395, 396

- **Behavioral & Evolutionary Biology**
  - BIO 319, 440

- **Structural & Physiological Biology**
  - BIO 302, 312, 323, 361, 381, 384

In addition, the student must choose two additional courses from the above lists, or one course and three hours of reading and/or research approved by the advisor. CHM 351 is also required for this concentration.

Biology Concentration

Choose a minimum of one course from each of the following categories.

- **Cellular-Molecular Biology**
  - BIO 345, 365, 366, 395, 396

- **Plant Biology**
  - BIO 324, 334

- **Environmental Biology**
  - BIO 420, 460, 463

- **Behavioral & Evolutionary Biology**
  - BIO 319, 440

- **Structural and Physiological Biology**
  - BIO 302, 312, 323, 361, 381, 384

In addition, the student must choose two additional courses from the above lists, or one course and three hours of reading and/or research approved by the advisor.

Cell and Molecular Biology Concentration

Students majoring in Cell & Molecular Biology must complete the following additional requirements with a grade of C or better in each biology course taken.

- BIO 365 (with lab)
- CHM 351

A minimum of four courses from the following list:

- BIO 312, 361, 366, 381, 384, 395, 396, 590
- CHM 320, 360, 362, 366, 461
- PHY 345

In addition, students must complete a year-long research project, under BIO 485, for a minimum of 3 credit hours. A minimum of one semester of Biochemistry is recommended.
Biology - Secondary Teaching
Students will follow the biology concentration and take the required 38 hours of education courses described elsewhere in this catalog. To be certified in the state of Illinois, students must complete the requirements of a secondary teaching certificate. These requirements are listed under the Department of Teacher Education (Secondary Education).

Environmental Science Major
Described elsewhere in this catalog.

Medical Technology Major
Described elsewhere in this catalog.

Curriculum
The department is characterized by a faculty of teacher-scholars, completely modern facilities and equipment in Olin Hall of Science, and a curriculum emphasizing undergraduate preparation for careers in the life sciences and the health professions. Independent study and research participation are a regular part of the curricular pattern for qualified students.

Each student is assigned a faculty advisor upon enrollment and should consult the advisor on matters of course scheduling and career goals. Cooperative education assignments are also available.

The following sequence of courses is suggested for the first two years of the undergraduate curriculum.

Freshman Year
First Semester
1 BIO 123.................................................................4
CHM 110 .................................................................3
CHM 111 .................................................................1
2 MTH 115 or 121.................................................4
ENG 101 or COM 103 ...........................................3
—
15

Second Semester
BIO 124.................................................................4
CHM 116 .................................................................4
CHM 117 .................................................................1
MTH 116 or 122 (recommended) .......................3-4
ENG 101 or COM 103 ...........................................3
—
15-16

Sophomore Year
First Semester
BIO 223.................................................................5
CHM 250 .................................................................4
Electives ...................................................................8
—
17

BIO 123 Principles of Biology I 4 hrs.
Flow of biological information: reproduction, genetics, behavior, and evolution. Prerequisite: science major or physical therapy major.

BIO 124 Principles of Biology II 4 hrs.
Flow of energy: cell biology, metabolism, and ecology.

BIO 125 Life Science I (Lab) 1 hr.
Principles of heredity, behavior, and evolution for non-science majors. May be taken with or without laboratory: with laboratory, 4 hours credit; without laboratory, 3 hours credit.

BIO 126 Life Science II (Lab) 1 hr.
Principles of cell biology and ecology for non-science majors. May be taken with or without laboratory: with laboratory, 4 hours credit; without laboratory, 3 hours credit. Open to all students; BIO 121 is NOT a prerequisite.

BIO 141 Introduction to Medical Technology 1 hr.
Profession and function of a medical technologist: job opportunities, current issues. Tour of a large hospital laboratory. Cross-listed as CHM 141.

BIO 200 Human Anatomy and Physiology 3 hrs.
Emphasis on concepts and principles of homeostasis as a manifestation of health and pathophysiological changes during disease. Prerequisite: BIO 122.
BIO 202 Microbiology and Immunology 3-4 hrs.
( Gen. Ed. FS)
Basic microbiology principles. Emphasis on application to health and disease. Optional lab.

BIO 203 Human Anatomy and Physiology Laboratory 2 hrs.
Laboratory: structure and function of human systems. Prerequisite: BIO 200 or concurrent enrollment.

BIO 205 Pathophysiology 3 hrs.
Advanced human physiology; normal function and structure of human cells, tissue, and organs; pathological changes which can occur. Prerequisite: BIO 200.

BIO 223 Organismic Biology 5 hrs.
Basic functions and related anatomy of a variety of organisms at various levels of organization. With laboratory. Prerequisites: CHM 110, 111; C or better in BIO 123, 124.

BIO 224 Genetics 3 hrs.
Mechanisms of heredity. Applications and implications of principles. Prerequisites: CHM 110, 111; MTH 109; C or better in BIO 224.

BIO 280 Directed Research 1-3 hrs.
Individual reading and research projects for qualified underclassmen. Repeatable up to 3 semester hours. Prerequisite: Advanced Placement biology credit, department placement test credit, or consent of chair.

BIO 300 Population, Resources and Environment 3 hrs.
( Gen. Ed. TS)
Ecosystem; how people interact with their environment. Emphasis on population, pollution, disease, and land use. Prerequisite: junior or senior standing, or sophomores by permission.

BIO 301 Biotechnology and Society 3 hrs.
( Gen. Ed. TS)
Various biotechnologies from medicine, agriculture, and industry; societal impacts of these technologies. Prerequisite: one college-level science course.

BIO 302 Invertebrate Zoology 4 hrs.
Detailed biological survey of major groups of invertebrate animals. Emphasis on marine phyla with good fossil representation. Dissection of representative types. Lecture and laboratory. Cross listed as GES 302. Prerequisites: elementary zoology or biology or historical geology with laboratory, or consent of instructor.

BIO 312 Developmental Biology 4 hrs.
Descriptive chemical and experimental analysis of principles of development. Prerequisite: C or better in BIO 224.

BIO 319 Ethology 4 hrs.
Development and evolution of animal behavior in individuals and social groups from various phyla. Prerequisite: C or better in BIO 223.

BIO 323 Comparative Anatomy 4 hrs.
Gross anatomy; evolution of chordate structure. Prerequisite: 6 hours college-level biology.

BIO 324 Plant Diversity 4 hrs.
Structure and function of plants in relation to fundamental principles of plant life. Laboratory study of representative types from each of the great groups of plants. Prerequisite: C or better in BIO 223.

BIO 334 Reproduction and Identification of Flowering Plants 4 hrs.
Evolution and ecology of flowering plant reproduction. Characteristics and identification of common flowering plant families of Illinois. Prerequisite: C or better in BIO 223.

BIO 345 Radiation Biology 3 hrs.
Role of ionizing radiation in the biological and medical sciences: production, detection, and measurement of radiation, physically and biologically; interaction of radiation with matter at molecular, cellular, whole body, and whole population levels; application of radiation as a useful and experimental tool. Cross-listed as PHY 345. Prerequisites: PHY 108, MTH 115 or 121; C or better in BIO 123.

BIO 361 Microanatomy 4 hrs.
Organs, tissues, and cells of animals: ultrastructure and relation to function. Prerequisites: 6 semester hours of college-level biology or two years of high school biology: physical or natural science major or consent of instructor.

BIO 365 Cell and Molecular Biology 3-4 hrs.
Molecular organization of cells: chemistry and structure in relation to function. Methods and techniques of investigation. Four hours if taken with laboratory. Prerequisites: C or better in BIO 224.

BIO 366 Biochemistry 3-4 hrs.
Introduction to enzymatic processes, bioenergetics, metabolism, and metabolic regulation. Methods and techniques of investigation. Four hours if taken with laboratory. Prerequisite: BIO 365.

BIO 381 Comparative Animal Physiology 3-4 hrs.
Fundamental concepts of mechanisms employed by various animal groups to satisfy functional requirements for living. Physiological differences and similarities. Four hours if taken with lab. Prerequisites: CHM 116, 250; C or better in BIO 223.

BIO 384 Neurobiology 3-4 hrs.
Principles of membrane biophysics, cellular neurophysiology, systems neurophysiology, and neuroanatomy. Lab optional. Prerequisite: C or better in BIO 223.

*Undergraduates are allowed to take 6 hours of BIO 385 and 6 hours of BIO 485, for a total of 12 research hours, and 3 hours of BIO 480 and 3 hours of BIO 580, for a total of 6 hours.
BIO 385 Supervised Research* 1-3 hrs.
Supervised research for qualified students in special areas of biology. May be repeated under different topics for a total of 6 credit hours. Prerequisites: 2.75 grade point average in student’s major and sophomore standing; or consent of instructor.

BIO 395 General Microbiology 4 hrs.
Basic microbiological principles: anatomy, physiology, genetics, growth, inhibition of growth, and classification. Applications: soil, water, food, industrial microbiology and microbial diseases. Includes lab. Prerequisite: C or better in BIO 123 and 124.

BIO 396 Immunology of Host Defense 3-4 hrs.
Imune response to foreign challenge; biochemical and cellular components of the immune response and regulation of their expression; contemporary and classical tools and strategies for investigating immune reactions. Anomalous immune responses and resultant diseases. Lab optional. Prerequisite: C or better in BIO 123 and 124.

BIO 420 Ecosystem Ecology 4 hrs.
Description of ecosystem form and function with focus on bio-geochemistry, food webs, and energy transformations within natural systems. Emphasis on application of ecosystem principles to sustainable land management and current issues such as global change and nitrogen deposition. Prerequisite: C or better in BIO 223; CHM 116, MTH 115 or 121.

BIO 440 Evolution 3 hrs.
Mechanisms of evolution, historical evolution, and history of evolutionary thought. Prerequisites: MTH 115 or 121; C or better in BIO 223 and 224.

BIO 450 Conservation Biology 3 hrs.
Conservation biology is a multidisciplinary field that focuses on the preservation of biological diversity. Classwork emphasizes conservation values and ethics, patterns of biodiversity, threats to biodiversity, and management strategies at the population, species, and ecosystem levels. Active learning activities include discussions of case studies, stakeholder meetings, fieldtrips to observe local conservation issues and work, and guest presentations by conservation professionals. Prerequisites: C or better in BIO 223; junior or senior standing.

BIO 460 Ecology 4 hrs.
Interrelationships among animals, plants, and their environment: ecosystems, biotic communities, population changes, and applied ecology. Prerequisites: MTH 115; C or better in BIO 223.

BIO 463 Plant Ecology 4 hrs.
Physiological and growth responses of plants to environmental stresses, and consequences to the structure and function of communities and ecosystems. Prerequisite: C or better in BIO 223.

BIO 470 Seminar 1-3 hrs.
Selected topics in biological sciences. Prerequisites: 2.0 grade point average in student’s major; junior or senior standing; consent of instructor.

BIO 475 Special Topics in Biology 2-4 hrs.
Selected coursework in biology. May be repeated under different topics for a total of 8 credit hours. Prerequisites: 2.75 grade point average in student’s major and Junior standing; or consent of instructor.

BIO 475 Special Topics in Biology 2-4 hrs.
Selected coursework in biology. May be repeated under different topics for a total of 8 credit hours. Prerequisites: 2.75 grade point average in student’s major and Junior standing; or consent of instructor.

BIO 480 Readings* 1-3 hrs.
Individual assignments of relevant topics in biological sciences. Prerequisites: 2.75 grade point average in student’s major; junior or senior standing; consent of instructor.

BIO 485 Research* 1-6 hrs.
Individual research for qualified students in special areas of biology. Prerequisites: 3.0 grade point average in student’s major; either a minimum of 3 credit hours in BIO 385 or senior standing; or consent of instructor.

BIO 501 Biology of Fishes 3 hrs.
Fishes: organ-system structure and function, ecology, embryology, behavior, and economic importance. Prerequisite: C or better in BIO 223, or six hours of college biology.

BIO 506 Advanced Microbiology 3 hrs.
Comprehensive analysis of selected topics of current interest in bacteriology, immunology, and virology: genetic engineering, plasmid research, bactericidal and bacteriostatic agents, complement system, viruses, tumor formation, and cancer. Prerequisites: one semester of laboratory bacteriology; organic chemistry; or consent of instructor.

BIO 509 Human Genetics 3 hrs.
Genetic theory and methodology applied to humans. Prerequisite: C or better in BIO 224.

BIO 510 Population and Evolutionary Ecology 3 hrs.
Emphasis on structure, growth patterns, and interactions of populations; relationship to evolutionary theory. Prerequisites: MTH 115; one semester of environmental biology or consent of instructor.

BIO 519 Comparative Animal Behavior 3 hrs.
Animal communication, social behavior, and evolution of behavior. Comparisons of a wide variety of vertebrates and invertebrates. Prerequisite: 6 hours of college-level biology or zoology.
BIO 525  Advanced Physiology  3 hrs.
Detailed study of the structure and function of animals; special reference to the human body; theories and methods of investigation mostly at organ system level; adaptational strategies to special conditions. Prerequisite: one semester of physiology or consent of instructor.

BIO 530  Plant Systematics  3 hrs.
Evolution, classification, and characteristics of various flowering plant families. Prerequisite: 6 hours college-level biology.

BIO 545  Biophysics  3 hrs.
Application of physics principles and methods to investigation of biological systems. Emphasis on physical environmental effects on biological systems. Cross listed as PHY 545. Prerequisites: PHY 108 or 201; senior standing; or consent of instructor. PHY 345 recommended.

BIO 561  Natural History of Vertebrates  3 hrs.
Vertebrates as integrated organisms: emphasis on activities and interaction with environment under natural conditions. Field work on local fauna. Introduction to classification. Prerequisite: 6 hours of college-level biology or zoology.

BIO 563  Advanced Plant Ecology  3 hrs.
Physiological and growth responses of plants to environmental stresses, and consequences to the structure and function of communities and ecosystems. Prerequisites: 6 hours college-level biology.

BIO 564  Advanced Molecular Biology  3 hrs.
Selected topics in molecular biology. Emphasis on proteins and nucleic acids. Prerequisites: C or better in BIO 224.

BIO 565  Aquatic Ecology  3 hrs.
Emphasis on survival and dispersion of natural aquatic populations as related to environmental degradation in lakes, rivers, and streams. Prerequisite: 6 hours college-level biology or zoology.

BIO 566  Advanced Biochemistry  3 hrs.
Quantitative aspects of all areas of biochemistry. Emphasis on metabolism. Prerequisite: one semester of biochemistry or physical chemistry, or consent of instructor.

BIO 568  Cellular and Molecular Immunology  3 hrs.
Interaction between antigen presenting cells, B lymphocytes, and T lymphocytes to mount immune responses. Molecules responsible for immune interactions. Methods to study cell and molecular interactions in immunity. Prerequisites: BIO 564 or equivalent.

BIO 570  Seminar  1-3 hrs.
Selected topics in biological sciences. May be repeated under different topics for a maximum of 6 hours credit. Prerequisites: 3.0 grade point average in student’s major; senior or graduate standing; consent of instructor.

BIO 575  Special Graduate Topics in Biology  2-3 hrs.
Selected graduate-level coursework in biology. May be repeated under different topics for a total of 6 credit hours. Prerequisites: 3.0 grade point average in graduate-level biology program; or consent of instructor.

BIO 580  Readings*  1-3 hrs.
Individual assignments of relevant topics in biological sciences. Prerequisites: 3.0 grade point average in student’s major; senior or graduate standing; consent of instructor.

BIO 585  Research  1-6 hrs.
Individual research for qualified students in special areas of biology. Prerequisites: senior-graduate standing. consent of instructor; 3.0 grade point average in the major field of study.
Chemistry-Professional
For those who elect this program the specific chemistry courses required are: CHM 110, 111, 116, 117, 191, 250, 320, 351, 360, 380, 392, 461, 462, 463, 480, 509, and 530. For those who desire certification, CHM 464, 510, 551, and 356 are required.

Chemistry-Biochemistry
The required chemistry courses for the Biochemistry program are: CHM 110, 111, 116, 117, 191, 250, 320, 351, 362, 363, 366, 380, 392, 461, 463, 480, and 530. The required biology courses for this program are: BIO 123, 124, 224, and 365. Either BIO 224 or BIO 365 must be taken with laboratory (for 4 credit hours). One year of college-level physics is required. Two semesters of calculus are required. Four hours of electives, chosen from the following list, are also required: CHM 319, 367, 460, 462, 464, 491, 568, BIO 396, or PHY 345. The total number of required credit hours is 76.

Chemistry-Premedical
This program is for the student who wishes to major in chemistry and prepare for entrance to medical, dental, or veterinary school. The required chemistry courses are: CHM 110, 111, 116, 117, 191, 250, 320, 351, 362, 363, 366, 380, 392, 461, 463, 480, and 480 plus 4 hours of chemistry electives, chosen from the following: CHM 319, 356, 367, 460, 463, 509, 530, and 551. The required biology courses for this program are BIO 123 and 124 plus seven hours of biology electives, chosen from the following: BIO 224, 323, 365, 381, 395, and 396.

Professional Chemistry - Secondary Teaching
The required chemistry courses for this program are identical to those of professional chemistry. The appropriate certification courses as specified by the College of Education and Health Sciences are required.

Chemistry-Business
This program is for the student who wishes to combine a background in both chemistry and business for the goal of immediate employment in technical or developmental chemistry or entrance to an MBA program. The required
chemistry courses are: CHM 110, 111, 116, 117, 191, 250, 315, 320, 345, 351, 360, 380, 392, 461, 463, 480, 530, and 550. The required business administration courses are: ATG 157, BMA 352, ECO 221 or ECO 100, FIN 322, MTG 315, and QM 262 plus 3 additional hours from the following list: ATG 158, BMA 342, ECO 222, or QM 263.

Chemistry-Computer
This is a program designed for students who wish to combine a basic knowledge of chemistry and other sciences with courses in computer technology. The required chemistry courses are: CHM 110, 111, 116, 117, 191, 250, 320, 351, 392, 461, and 463 plus 9 additional hours of chemistry electives. Approved computer-related courses are required.

Chemistry Minor
The minor in chemistry consists of CHM 110, 111, 116, 117, 250, 320, 351, 392, 461, and 463. One year of college-level physics and one semester of calculus are also required.

Medical Technology
In cooperation with the Department of Biology, a degree program is offered in medical technology. See the listing under Medical Technology in this catalog for information.

Course Descriptions

CHM 100 Fundamentals of General Chemistry 3 hrs. (Gen. Ed. FS)
Basic chemical concepts.

CHM 101 Fundamentals of General Chemistry Lab 1 hr. Laboratory for CHM 100. Corequisite: CHM 100.

CHM 110 General Chemistry I 3 hrs. (Gen. Ed. FS)
Chemical principles and applications; For majors in chemistry, engineering, biological sciences, and other physical sciences. Prerequisites: high school chemistry or CHM 100.

CHM 111 General Chemistry I Laboratory 1 hr. Laboratory for CHM 110. Prerequisites: CHM 110 or concurrent enrollment.

CHM 112 Engineering Chemistry 3 hrs. (Gen. Ed. FS)
For students of engineering and related disciplines. Prerequisite: CHM 110 or equivalent.

CHM 116 General Chemistry II 4 hrs.
Continuation of CHM 110. Required for students who are preparing for further study in chemistry. Prerequisite: CHM 110.

CHM 117 General Chemistry II Laboratory 1 hr. Laboratory for CHM 116. Prerequisites: CHM 110, 111; Corequisite: CHM 116.

CHM 141 Introduction to Medical Technology 1 hr.
Profession and function of a medical technologist: job opportunities, current issues. Tour of a large hospital laboratory. Cross listed as BIO 141.

Synthesis, reactions, and uses of organic compounds utilized by man. Prerequisite: one semester of college chemistry or departmental approval. Not open to students with credit in CHM 150.

CHM 152 Fundamentals of Biochemistry 2 hrs. (Gen. Ed. FS)
Clinical chemistry and its health related applications. Prerequisite: CHM 151 or one semester of organic chemistry. Not open to students with credit in CHM 150.

CHM 153 Organic - Biochemistry Laboratory 1 hr.
Introduction to techniques of isolation, purification, synthesis, and identification of organic compounds with emphasis on biologically important compounds. Prerequisites: CHM 151 and 152 or concurrent enrollment.

CHM 191 Computer Applications in Chemistry 1 hr.
Introduction to computer software relevant to the discipline of chemistry. Prerequisites: CHM 100 or concurrent enrollment.

CHM 250 Organic Chemistry 4 hrs.
Aliphatic and aromatic compounds; emphasis on class reactions. Prerequisite: one year of college chemistry.

CHM 299 Directed Studies in Chemistry 1-4 hrs.
Studies undertaken by freshman or sophomore students under the guidance of staff members. Prerequisites: consent of instructor and Department Chair.

CHM 300 Chemistry and Civilization 3 hrs. (Gen. Ed. TS)
For non-science majors: broad survey of the science of chemistry and its overall effect on civilization. Prerequisites: junior standing; major other than science or engineering.

CHM 306 Intermediate Analysis 3 hrs.
Quantitative analytical procedures; basic instrumental techniques. Prerequisites: CHM 116, 117, 250.

CHM 315 Environmental Chemistry 3 hrs.
Chemical principles applied to environmental systems; water, air, soils, conventional and hazardous wastes, thermodynamic principles, acid/base and redox chemistry, interfacial chemistry, analytical techniques. Prerequisite: CHM 162 or 116, 117 or consent of instructor.

CHM 319 Inorganic Chemistry 3 hrs.
Preparation, properties, reactions, and uses of the elements and their compounds. Prerequisites: CHM 110, 111, 116, 117, 250.

CHM 320 Analytical Chemistry 4 hrs.
Introduction to modern analytical chemistry involving classical gravimetric and volumetric procedures combined with modern instrumental techniques. Lecture and laboratory. Prerequisites: CHM 116, 117, 250.
<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
<th>Description</th>
<th>Prerequisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHM 345</td>
<td>MS</td>
<td>Materials Chemistry 1 hr. Survey of topics in materials chemistry. Prerequisite: CHM 319 or consent of instructor.</td>
<td>CHM 250.</td>
</tr>
<tr>
<td>CHM 351</td>
<td>4 or 5</td>
<td>Organic Chemistry Emphasis on theoretical and instrumental aspects. Prerequisite: CHM 250.</td>
<td></td>
</tr>
<tr>
<td>CHM 360</td>
<td>3</td>
<td>Biological Chemistry Introduction to biological macromolecules, enzymatic processes, bioenergetics, and metabolism. Prerequisites: CHM 351, CHM 320. Not open to students with credit in CHM 362 and CHM 366.</td>
<td></td>
</tr>
<tr>
<td>CHM 363</td>
<td>1</td>
<td>Biochemistry I Laboratory Structure and function of biological macromolecules. Prequisite: CHM 362 or concurrent enrollment.</td>
<td></td>
</tr>
<tr>
<td>CHM 366</td>
<td>3</td>
<td>Biochemistry II: Metabolism Energetics, regulation, and integration of metabolic processes. Prerequisite: CHM 351, CHM 362 or consent of instructor.</td>
<td></td>
</tr>
<tr>
<td>CHM 367</td>
<td>1</td>
<td>Biochemistry II Laboratory Investigation of enzymes and metabolism. Prequisite: CHM 363; CHM 366 or concurrent enrollment.</td>
<td></td>
</tr>
<tr>
<td>CHM 380</td>
<td>0</td>
<td>Junior Seminar in Chemistry Weekly seminars presented by a variety of speakers pertaining to all aspects of Chemistry. Course may be repeated a maximum of three times. Pass/Fail. Prerequisites: Junior standing or consent of instructor.</td>
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</tr>
<tr>
<td>CHM 391</td>
<td>1</td>
<td>Medical Terminology Terminology used in all areas of medical and paramedical specialties. Emphasis on word building, technique, and understanding of typical medical reports. Cross listed as NUR 391. Prerequisites: one year each of college biology and chemistry.</td>
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</tr>
<tr>
<td>CHM 392</td>
<td>1</td>
<td>Chemical Literature Use of chemical literature. Prerequisite: CHM 250; CHM 351 or concurrent enrollment.</td>
<td></td>
</tr>
<tr>
<td>CHM 460</td>
<td>3</td>
<td>Advanced Biochemistry Applications of organic, inorganic, and physical chemistry to biological systems. Prerequisite: CHM 366.</td>
<td></td>
</tr>
<tr>
<td>CHM 461</td>
<td>3</td>
<td>Physical Chemistry Mathematical treatment of laws governing chemical and physical changes. Prerequisites: CHM 250, 320; one year each of college physics and calculus.</td>
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<tr>
<td>CHM 462</td>
<td>3</td>
<td></td>
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<tr>
<td>CHM 463</td>
<td>1</td>
<td>Physical Chemistry Laboratory Corequisite: CHM 461 or 462.</td>
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</tr>
<tr>
<td>CHM 480</td>
<td>1</td>
<td>Senior Seminar in Chemistry Weekly seminars presented by a variety of speakers pertaining to all aspects of Chemistry. Each student will present a seminar under the supervision of a faculty member. Prerequisites: two semesters of CHM 380.</td>
<td></td>
</tr>
<tr>
<td>CHM 491</td>
<td>1-3</td>
<td>Independent Studies in Chemistry Studies undertaken by well qualified advanced students under the guidance of staff members, with approval of the Department Chair. May be repeated for a maximum of 6 hrs. credit.</td>
<td></td>
</tr>
<tr>
<td>CHM 500</td>
<td>1-3</td>
<td>Chemical Topics Topics of special interest which may vary each time course is offered. Topic stated in current Schedule of Classes. Prerequisites: CHM 351 and 461.</td>
<td></td>
</tr>
<tr>
<td>CHM 509</td>
<td>3</td>
<td>Advanced Inorganic Chemistry Theoretical-descriptive approach to inorganic chemistry. Emphasis on dependence of selected chemical and physical characteristics of elements and compounds on extranuclear structure. Prerequisites: CHM 320, 461.</td>
<td></td>
</tr>
<tr>
<td>CHM 510</td>
<td>1</td>
<td>Advanced Inorganic Chemistry Laboratory Laboratory work in inorganic chemistry. Prerequisite: CHM 509 or concurrent enrollment.</td>
<td></td>
</tr>
<tr>
<td>CHM 530</td>
<td>4</td>
<td>Advanced Analytical Chemistry Theory and applications of modern qualitative, quantitative, and instrumental methods. Prerequisites: CHM 320, 462.</td>
<td></td>
</tr>
<tr>
<td>CHM 550</td>
<td>1</td>
<td>Industrial Organic Chemistry Survey of modern industrial organic chemistry; emphasis on petroleum derivatives. Prerequisite: one year of organic chemistry.</td>
<td></td>
</tr>
<tr>
<td>CHM 551</td>
<td>3</td>
<td>Advanced Organic Chemistry Organic reactions and reaction mechanisms. Prerequisite: CHM 351.</td>
<td></td>
</tr>
<tr>
<td>CHM 556</td>
<td>3</td>
<td>Organic Spectroscopy Characterization/identification of compounds using spectrometric methods. Prerequisites: CHM 351 or equivalent. Not open to students with credit in CHM 356 or equivalent.</td>
<td></td>
</tr>
<tr>
<td>CHM 568</td>
<td>1-3</td>
<td>Selected Topics in Biochemistry Content and credit will vary as indicated in current schedule of classes. May be repeated for up to eight credits, with no more than two credits counting towards the major. Prerequisite: CHM 366.</td>
<td></td>
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</tbody>
</table>
Department of Computer Science and Information Systems

FACULTY Professors Haghighi, Liu, Nikolopoulos, Park, Uskov; Associate Professors Dolins, Miller (chair); Assistant Professor Patton; Lecturer McGill.

The department offers baccalaureate degree programs in computer science and in computer information systems.

Computer scientists are mainly concerned with software development and systems design. They are usually employed by computer manufacturers and software houses specializing in systems software and are expected to produce operating systems, language translators, data management software, and other programming, processing, and operating aids to be used in conjunction with computer hardware. As developers of basic computer technology, their preparation is highly mathematical and scientific in its orientation.

Computer information specialists are principally users of computer technology. They are usually employed as programmer/analysts, lead programmers, and systems project leaders for applications in business, industry, and government. Course work in this major emphasizes systems analysis and design, programming, applied computer science, systems implementation, and management.

For students not majoring in the department, we offer a minor which can be tailored to the individual’s goals and needs.

Students intending to take only one course in the department should enroll in CIS 102 if they desire a detailed treatment of a programming language, or CIS 300 if they desire a general discussion of computers and their impact on society.

Computer Science

The department has course offerings of sufficient breadth to allow specialization in a number of areas including database concepts, software design, scientific programming, programming language concepts, and computer elements and architecture. Majors are encouraged to choose an area of specialization based upon their career goals and to select their electives, with guidance from their advisor, to support that choice. The general requirements for the computer science major are:

1. Computer Science:
   a. 45 semester hours including CS 106, CS 121, CS 206, CS 216, CS 302, CS 350 or EE 311, CS 380, CS 406, and CS 519;
   b. one course from each of the following groups of courses: CS 310 or CS 405; CS 514 or CS 521; CS 343 or CS 550;
   c. at least 24 semester hours must be at or above the 300 level;
   d. a grade of C or better is required in all computer science courses submitted in fulfillment of the major requirements.

2. Mathematics: MTH 120, MTH 121, MTH 122, MTH 207, MTH 223, and MTH 325.

3. Science:
   a. a two-semester sequence (eight semester hours) in laboratory science for science majors;
   b. two additional one-semester courses in science; one or both of these additional science courses may be replaced by one or both of the following courses emphasizing quantitative methods: IME 313, IME 314.

Computer Information Systems

The general requirements for the computer information systems major are:

1. Computer Science and Computer Information Systems:
   a. 33 semester hours including CIS 203, CS 106, CS 121, CS 206, CS 310, CS 343, CS 403, and CS 405. (CS 406 is strongly recommended);
   b. at least 21 hours must be at or above the 300 level;
   c. a grade of C or better is required in all computer science and computer information systems courses presented in fulfillment of the major requirements.

2. Mathematics: MTH 105 (or equivalent) and either MTH 115 or MTH 121 (MTH 116 or MTH 121 is recommended), and MTH 120.


4. Accounting: ATG 157 and ATG 158.


6. Economics: ECO 221 (or ECO 100).

7. Finance: FIN 322.

8. Psychology: PSY 104.

9. Supporting Area: Each computer information systems major must select a minor, or at least 18 semester hours in an approved sequence of courses in a supporting area; at least 12 of these hours must be above the freshman level. A frequent choice is the business administration minor. Several other options exist and interested
students should consult with their major advisor for assistance in selecting one suitable to their goals and needs. Students should also consult the department offering the minor. Students choosing the business administration minor must have that choice approved by the College of Business Administration.

**Computer Science and Information Systems Minor**

The requirements for a minor in computer science and information systems are:

1. a total of 21 hours in computer science or computer information systems courses;
2. at least 12 of these hours must be in courses numbered 300 or above.

Non-majors interested in the minor should consult the department and develop an individualized plan. For example, a student seeking to achieve a working competence in information systems might select CS 106, CS 121, CS 310, CS 343, CS 403, CS 405, and CS 406. Plans to meet other objectives can be worked out with a department advisor.

**Course Descriptions**

**Computer Information Systems**

**CIS 102  Introduction to Computer Information Systems with BASIC** 3 hrs. Fundamental concepts of computer programming and design of algorithms. Problem solving using BASIC. Introduction to flow chart language and use of software packages. Functional limitations and capacities of computers.

**CIS 203  Data Processing with COBOL** 3 hrs. Solution of data processing problems using COBOL. Introduction to file handling and use of computers in a business environment. Prerequisites: Previous high school or college programming courses.

**CIS 215  Introduction to Scripting Languages** 3 hrs. A non-technical introduction to the use of scripting languages in a web-based environment. An overview of current scripting languages such as Javascript, VBScript, and PERL. Cross-listed as MM 215. Prerequisites: one semester of programming, or MM 213 and MM 365, or equivalent.

**CIS 230  Introduction to Computer Forensics** 3 hrs. Provides an overview of computer forensics, investigation techniques, and relevant laws. Covers computer operating system architectures and disk structures and their relevance to computer forensics. Cross listed as ACJ 230. Prerequisite: previous computer class or consent of instructor.

**CIS 330  Advanced Computer Forensics** 3 hrs. Provides students an extensive look at computer forensics and formal techniques used in computer forensics in a lab environment. Formal techniques for conducting a computer forensics investigation including record-keeping are covered. Students will conduct computer forensic exams and participate in practical computer forensic examination exercises. Cross listed as ACJ 330. Prerequisites: CIS 230 or ACJ 230.

**CIS 275  Business Applications with Visual Basic** 3 hrs. Object-oriented business application development using Visual Basic. Emphasis on object classes, events and properties, data structures, controls, and objects. Dual listed as BMA 275. Prerequisites: CIS 102, BMA 272, or consent of instructor.

**CIS 300  Computers and Society** 3 hrs. (Gen. Ed. TS) History of computers; their use, limitations, and impact on society; Internet and the World Wide Web; creation of Web content. Prerequisite: Junior standing or consent of instructor.

**CIS 377  Advanced COBOL Systems & Environments** 3 hrs. Design and implementation of production-oriented COBOL system projects. Environments for development and implementation of COBOL systems in both batch and interactive modes. JCL for resource management, file processing, and multi-key file processing. Comparison and portability issues in different COBOL system environments. Prerequisite: CIS 203.

**CIS 571  Computer Law** 3 hrs. Ethical considerations of computer scientists and computer-related security and privacy issues; copyright, patent, trademark, and trade secret issues, deceptive trade practices, computer crime, contract issues, venture capitalists, tax issues, computer torts, constitutional issues, and international trade considerations. Prerequisite: one semester of programming.

**CIS 572  Computing Services Management** 3 hrs. Management of computer resources; planning for computing services; operational considerations; evaluation of service. Prerequisite: CS 310 or equivalent.

**CIS 588  Introduction to Expert Systems** 3 hrs. Knowledge-based systems design and implementation; expert systems shells and programming environments; validation and implementation of expert systems; case studies/laboratories. Cross-listed as IE 588. Prerequisites: two semesters of computer programming and one semester of statistics, or consent of instructor.

**Computer Science**

**CS 106  Introduction to Programming and Computer Science** 3 hrs. Problem solving, algorithm development, and implementation using modern structured programming language. Software design methodologies. Introduction to Bradley University computer science software development environment. Programming language features: primitive and structured data types, data description, data and sequence control mechanisms, subprograms. In-depth introduction to computer science. Prerequisite: MTH 109 or MTH 112 or equivalent.
CS 121 Introduction to Data Structures 3 hrs.
Continuation of CS 106: introduction to file processing, searching, sorting, and simple data structures. Emphasis on using software methodologies for large programs. Data abstraction, validation, verification, and analysis of programs. Prerequisite: a grade of C or better in CS 106 or equivalent.

CS 206 Assembler Language I 3 hrs.
Computer organization and assembler language programming. Prerequisite: CS 106.

CS 216 Introduction to Programming Languages 3 hrs.
Formal languages, BNF, and compiling. Unusual languages such as LISP, SNOBOL, and APL. Conventional languages such as FORTRAN, PL/I, and ADA. Prerequisites: CS 121, 206.

CS 302 Advanced Data Structures & Algorithms 3 hrs.
Extends coverage of CS 121 data structures. Applications include data structures for searching and sorting, memory management, graphs, and strings. Emphasis on understanding data abstraction and relationship to good programming practices in large programs. Implementation of data structures and evaluation of results. Prerequisites: a grade of C or better in CS 121. Corequisite: CS 206.

CS 310 Information Structures & Management 3 hrs.
File organizations and access methods. Sort/merge operations; hashing schemes for storage and retrieval. Projects involve data validation; creation and updating of files; simulation and/or implementation of direct or indexed files. Prerequisite: CS 121.

CS 320 Symbolic Logic 3 hrs.
Logical systems; prepositional and predicate calculi. Truth tables, proofs, tautologies, principles of inference, Boolean algebra, DeMorgan’s Laws, quantifiers, representations, and set theory. Cross-listed as PHL 320. Prerequisite: MTH 120.

CS 343 Data Communications and Communication Networks 3 hrs.
Fundamentals of data communications: data transmission, data encoding, digital data communication techniques, data link control, and multiplexing. Introduction to switched and shared medium communication networks. Prerequisites: grade of C or better in both MTH 120 and CS 121.

CS 350 Computer Organization 3 hrs.

CS 380 Foundations of Computer Science 3 hrs.
Fundamental concepts of computer science related to programming. Models of computable functions, undecidable problems, recursive functions. Automata, languages, grammars, parsing, parallel architectures, and algorithms. Prerequisites: CS 121; MTH 120.

CS 403 Systems Design and Analysis 3 hrs.
Methodology of building a complete computer based system. Case studies. Prerequisite: CS 310 or 302.

CS 405 Database Management Systems 3 hrs.

CS 406 Introduction to Software Engineering 3 hrs.
Product engineering and control activities. Software engineering; relationship to other disciplines. Phases of software products and products of software engineering. Prerequisite: CS 216 or 310.

CS 410 Directed Individual Studies 1-6 hrs.
Individual project developed under supervision of a CS faculty member. May be repeated under a different topic once. Maximum of three semester hours per semester. Prerequisite: consent of department.

CS 412 Topics in Computer Science 3 hrs.
Topics of special interest which may vary each time course is offered. Repeatable under a different topic for a maximum of six hours. Prerequisites: consent of instructor.

CS 490 Capstone Project I 3 hrs.
Applies the concepts and skills learned by undergraduate computer science majors at Bradley University. Students are required to work on a team on a significant software project. Prerequisites: CS 405, 406.

CS 491 Capstone Project II 1-3 hrs.
Applies the concepts and skills learned by undergraduate computer science majors at Bradley University. Students are required to work on a team on a significant software project. Prerequisites: CS 490.

CS 500 JAVA Programming and Web Design 3 hrs.
Introduction to JAVA programming and PERL. Internet and Web-based applications, design and building of multimedia systems, user interface design, Gateway Interface (CGI) scripting; VRML. Prerequisite: CS 121 or equivalent.

CS 502 Advanced Programming 3 hrs.
Introduces the fundamental concepts of programming from an object-oriented perspective with emphasis on advanced programming skills and good software development principles in a closed laboratory setting. Covers topics including object-oriented paradigm, design and programming, fundamental data structures and computing algorithms, and software development principles. Prerequisites: consent of graduate program coordinator; at least two semesters of programming experience.
CS 503 Programming Methodology 3 hrs.
Predicate calculus, Dijkstra's methodology of algorithm development. Algorithm development. Algorithmic language characteristics; syntax, semantics. Postconditions and preconditions. Verification of postcondition states satisfied by algorithmic programs executed from preconditions. Problems. Prerequisites: a grade of C or better in both MTH 120 and CS 121.

CS 505 Advanced Topics in Databases 3 hrs.
Current trends in information technology. Hypertext, navigation, intelligent navigation with expert systems and neural nets, multimedia, text management and retrieval, deductive and object-oriented databases, distributed databases, the integrated intelligent database. Prerequisite: CS 405 or equivalent.

CS 510 Numerical Methods I 3 hrs.
Introduction to numerical and computational aspects of various mathematical topics: finite precision, solutions to nonlinear equations, and interpolation, approximation, linear systems of equations, and integration. Cross listed as MTH 510. Prerequisites: CS 106; MTH 207 and 223.

CS 511 Numerical Methods II 3 hrs.
Continuation of CS/MTH 510: further techniques of integration, ordinary differential equations, numerical linear algebra, nonlinear systems of equations, boundary value problems, and optimization. Cross listed as MTH 511. Prerequisites: MTH 224 or 345; CS/MTH 510.

CS 514 Algorithms 3 hrs.
Design and analysis of algorithms. Dynamic structures maintenance and hashing. Searching, sorting, and traversal. Time and space requirements; simplification; computational complexity; proof theory and testing; NP-hard and NP-complete problems. Prerequisites: a grade of C or better in CS 302; one semester of statistics.

CS 516 Programming Languages 3 hrs.
Design concepts of high-level languages. Description languages; grammars and syntax; expressions and data structures; selection and control structures; constructs for input and output; subprograms and parameter communications. Prerequisite: CS 302 or 310.

CS 518 Programming Language Translation 3 hrs.
Overview of programming language translation with emphasis on modern compiler construction. Lexical analysis, parsing, syntax and semantic analysis, code generation, garbage collection, and optimization. Prerequisite: grade of C or better in CS 302. Corequisite: CS 516 or CS 216.

CS 519 Introduction to Operating Systems 3 hrs.
Design principles of software for operation of computers. Storage, processor, device, and file management as an integrated system; input/output control. Prerequisites: a grade of C or better in CS 302.

CS 521 Introduction to Artificial Intelligence 3 hrs.
Basic concepts and techniques of artificial intelligence: philosophical considerations, examples, pattern recognition, search strategies, game playing, knowledge representation, logic and resolution, planning, vision, natural language processing, programming in LISP. Prerequisite: a grade of C or better in CS 302.

CS 522 Neural Networks, Knowledge-based Systems, and Applications 3 hrs.
Theorem proving, logic programming, expert systems, uncertainty, fuzzy logic, machine learning, neural networks, programming in PROLOG. Prerequisites: a grade of C or better in CS 302; one course in statistics.

CS 530 Client-Server Computing with JAVA 3 hrs.
Continuation of CS 500. JAVA programming in client-server environment. JAVA distributed computing and distributed object computing protocols. Internet and object Web computing in JAVA. JAVA Enterprise computing technologies. Prerequisite: CS 500 or equivalent.

CS 535 Introduction to Computer Graphics 3 hrs.
Mathematics and algorithms of computer graphics. Device differences, lines, arcs, curves, transformations, input and output primitives. Data structures for geometric entities. Prerequisites: MTH 207, 223; CS 302.

CS 550 Advanced Computer Architecture 3 hrs.
Fundamental computer sub-systems: central processing unit; memory systems; control and input/output units. General purpose computing systems design. Examples from existing typical computers. Prerequisite: CS 350.
Economics (L.A.S.)

FACULTY  Professors Highfill, O'Brien, Sattler, Scott (chair), Weinstein; Associate Professors Felder, Wojcikewych; Assistant Professors Gretz, Lever.

The Department of Economics offers a major in both the College of Liberal Arts and Sciences and in the Foster College of Business Administration. Normally, individuals planning a career in government, politics, public policy, or the law should be in the College of Liberal Arts and Sciences. Students interested in an economics major are urged to consult with a departmental advisor for a suggested course of study that will serve their career objectives.

The departmental requirements for the major are designed to provide the student with: (1) a knowledge of basic economic theory; (2) quantitative tools for dealing with economic variables; (3) more specialized understanding of particular areas of interest in economics; and (4) a broad background in the humanities, in the social sciences, and in the physical sciences.

Individuals planning to study for the Ph.D. in economics should take either a minor in mathematics or the following courses: MTH 121, MTH 122, MTH 207 and MTH 223. It is strongly advised that MTH 420 also be taken.

Students enrolling in the Department of Economics will meet its requirements by completing the following program.

Course Requirements:
Economics 221 (or 100), and 222 .................................6
Economics Colloquium for Juniors (300) ..............................1
Intermediate Microeconomic Theory (332) ..........................3
Intermediate Macroeconomic Theory (333) ..........................3
Economics Colloquium for Seniors (400) ............................1
Senior Seminar (498, 499) ..................................................3
Economics Electives .............................................................6
At least one heterodox economics course
(ECO 313, 345, 351, 362, 444) ...........................................3
Minimum of 26 semester hours in economics including at least 23 semester hours above the 100 level.
QM 262, 263, or equivalent ..................................................6
Philosophy .............................................................................3
Mathematics (Calculus), MTH 121 or MTH 115 ......................4
ATG 157 Accounting Principles - Financial .........................3

Majors must receive a grade of C or better in Economics 332, 333, and 499.

Economics majors must demonstrate proficiency with commonly used computer software by passing a proficiency test. Students should contact the Student Services Office of the Foster College of Business Administration for details of testing.

Economics Minor
The purpose of the minor in economics is to provide students with a coherent and guided study of economics as it relates to their special discipline or interests. Students must fulfill the following requirements:
1. ECO 100 or 221, and 222.
2. ECO 332 or 333 (with a grade of C or better).
3. 6 hours of junior-senior level economics courses.
4. 9 hours of the 15 hours must be taken at Bradley.
5. The minor must be declared no later than the completion of the third economics course.

Students in an economics minor must consult with a departmental advisor at the time that the minor is declared to plan a course of study that will serve their objectives.

The economics curriculum is designed to (a) provide students from other disciplines an opportunity to broaden their understanding of the economic forces that shape societies; (b) provide an opportunity for in-depth study of economics for students planning careers in education, law, government service, business, and other careers in which a more specialized understanding of economics is desirable; and (c) allow students planning to engage in economics professionally to prepare for graduate work.

All courses offered by the Department of Economics are available for students in the College of Liberal Arts and Sciences. For convenience these courses are listed below by the title only. A complete listing of courses and course descriptions is given in the Department of Economics section under the Foster College of Business Administration.
ECO 100 Introduction to Economics .................................3
ECO 200 Economics in Literature ......................................1
ECO 221 Principles of Microeconomics ...............................3
ECO 222 Principles of Macroeconomics ..............................3
ECO 300 Economics Colloquium for Juniors ......................1
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
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<tbody>
<tr>
<td>ECO 301</td>
<td>Money and Banking</td>
<td>3</td>
</tr>
<tr>
<td>ECO 305</td>
<td>Public Expenditure and Finance</td>
<td>3</td>
</tr>
<tr>
<td>ECO 310</td>
<td>Labor Problems</td>
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<td>American Economic History</td>
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<td>ECO 319</td>
<td>Introduction to Econometrics</td>
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<td>ECO 325</td>
<td>Urban Economics</td>
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<td>ECO 332</td>
<td>Intermediate Microeconomic Theory</td>
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<td>Intermediate Macroeconomic Theory</td>
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<td>Economics and Law</td>
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<td>International Monetary Economics</td>
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<td>ECO 391</td>
<td>International Trade</td>
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<td>ECO 399</td>
<td>Special Topics in Economics</td>
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<td>Economics Colloquium for Seniors</td>
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<td>ECO 418</td>
<td>Mathematical Economics</td>
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<td>ECO 434</td>
<td>Readings in Economics</td>
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<td>ECO 444</td>
<td>History of Economic Thought</td>
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<td>ECO 498</td>
<td>Senior Seminar in Economics, Part I</td>
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<td>ECO 499</td>
<td>Senior Seminar in Economics, Part II</td>
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</table>
Department of English

FACULTY  Professors Brill de Ramirez, Chambers, Jost, Stein, Vickroy; Associate Professors Baker, Blouch, Conley, Craig, Dusenbery, Moloney, Palakeel, Prescott, Swafford, Worley; Assistant Professors Glassmeyer, Katz, Muzzillo, Newton; Lecturers Burgauer, Herbert, Leathers.

Chair: Prescott; Coordinator of Composition: Dusenbery; Coordinator of Graduate Studies: Swafford.

The Department of English offers a scholarly environment for writing and the study of literature. The department believes that this environment will enable students to become lifelong learners, responsible citizens, and successful professionals. The department is committed to
1. developing students’ skills for creative, academic, or professional purposes.
2. strengthening students’ critical thinking and research skills;
3. increasing students’ knowledge and appreciation of the literatures of diverse periods and cultures; and
4. broadening students’ understanding of and facility with language.

Students who major or minor in English develop their skills in preparation for careers in teaching, publishing, industry, business, or service agencies; for such professional studies as law, library science, or medicine; or for graduate studies in literature, language, or creative writing.

Bachelor of Arts Degree in English

1. General Requirements
The Bachelor of Arts is the only degree given in English. The B.A. degree requires completion of a 202 or 300-level foreign language course. Only three hours of foreign language are required if the student places at the 202 level or above; as many as 14 hours may be required if the student has less proficiency.

In addition to fulfilling the requirements for a B.A. degree, all English majors must complete a minimum of 33 hours in courses above the 100-level, distributed according to the following requirements. (English majors are advised not to fulfill the general education HV-literary analysis requirement by taking ENG 124 or 127).

2. Requirements at the 200-Level........................................12
ENG 233 American Literature to 1865
ENG 235 American Literature 1865 to Present
ENG 237 British Literature to 1800
ENG 239 British Literature 1800 to Present

3. Requirements at the 300-Level........................................3
ENG 347 Shakespeare

4. Five different courses from at least four of the following groups:..................................................15
Group 1. British Periods
ENG 341 Medieval English Literature
ENG 344 Renaissance English Literature
ENG 358 18th Century British Literature
ENG 361 British Romantic Literature
ENG 363 British Victorian Literature
ENG 364 20th Century British Literature

Group 2. American Periods
ENG 332 Early American Literature
ENG 344 19th Century American Literature
ENG 336 20th Century American Literature

Group 3. Genres
ENG 368 Science Fiction and Fantasy
ENG 370 Poetry as Genre
ENG 371 Fiction as Genre
ENG 372 Drama as Genre

Group 4. Individual Authors
ENG 375 Individual Authors

Group 5. Cultural Literary Studies
ENG 329 Studies in African American Literature
ENG 330 Studies in Native American Literature
ENG 331 Studies in Women Writers
ENG 381 Literatures of Asia

Group 6. Topics in Language and Composition
ENG 311 Introduction to Language
ENG 312 English Grammar
ENG 580 Methods of Teaching Composition

Group 7. Criticism and Theory
ENG 370 Literary Criticism and Theory

Group 8. Writing Courses
(In conjunction with a senior project that emphasizes writing, two of these courses enable a student to acquire a significant writing emphasis within the English major.)
ENG 207 Creative Writing I
ENG 300 Exposition
ENG 301 Argumentative Writing  
ENG 303 Autobiography  
ENG 304 Research in Individual Disciplines  
ENG 305 Technical Writing  
ENG 306 Business Communication  
ENG 307 Creative Writing II  
ENG 407 Creative Writing III  
ENG 492 Practicum in English  
ENG 503 Creative Non-Fiction  
ENG 507 Workshop for Writers  

(ENG 300, ENG 301, ENG 304, ENG 305, ENG 306 are only counted towards the major if taken in addition to the University's composition requirement).

5. Requirements at the Senior Level ..................3

Every English major is required to complete a significant research writing project relating to interests/needs and including an audience, publishing, or organizational context. This requirement can be satisfied by ENG 480 or ENG 495. Majors wanting special project work in creative writing will take ENG 495.

ENG 480 Senior Project  
ENG 495 Independent Study

Major Program in English Secondary Education - B.A.

Since the Bachelor of Arts is the only degree given in English, all English Secondary Education majors must fulfill B.A. degree requirements. Forty hours are required in major courses:

Requirements at 100-200 level:

ENG 180 Intro to English Education .............................1  
ENG 233 American Literature to 1865 or ENG 235  
American Literature 1865 to Present .........................3  
ENG 237 English Literature to 1800 or ENG 239  
English Literature 1800 to Present ...........................3  
ENG 270 Introduction to Literary Criticism & Theory .......3

Requirements at 300 level:

ENG 311 Introduction to Language ...............................3  
ENG 312 English Grammar .............................................3  
ENG 320 Young Adult Literature .................................3  
ENG 347 Shakespeare .....................................................3  
ENG 391 Methods of Teaching Writing ..........................3  
ENG 392 Methods of Teaching Reading and Literature ......3

Requirement at 400-level:

ENG 472 Methods of Teaching Integrated Language Arts ..3

English Education Electives .................................9

If taken in addition to the required courses in the major and in addition to General Education requirements, the following courses are approved as English Education electives. Students select three of these courses; at least two of the three must be at the 300 level or above

200-Level Courses (choose no more than one):

ENG 207 Creative Writing I  
*ENG 233 American Literature to 1865  
*ENG 235 American Literature 1865 to Present  
*ENG 237 British Literature to 1800  
*ENG 239 British Literature 1800 to Present  
*only if taken in addition to 200-level English Education requirements

300-, 400-, and 500-Level Courses (choose 2 or 3 courses):

*ENG 300 Exposition  
*ENG 301 Argumentative Writing  
ENG 303 Autobiography  
*ENG 304 Research Individual Disciplines  
*ENG 305 Technical Writing  
*ENG 306 Business Writing  
ENG 307 Creative Writing II  
ENG 329 Studies African American Literature  
ENG 330 Studies Native American Literature  
ENG 331 Studies in Women Writers  
ENG 332 Early American Literature  
ENG 334 19th-Century American Literature  
ENG 336 20th-Century American Literature  
ENG 340 Medieval English Literature  
ENG 344 Renaissance English Literature  
ENG 358 18th-Century British Literature  
ENG 359 19th-Century English Literature  
ENG 361 British Romantic Literature  
ENG 363 British Victorian Literature.  
ENG 364 20th-Century British Literature  
ENG 368 Science Fiction and Fantasy  
ENG 370 Literary Criticism and Theory  
ENG 372 Poetry as Genre  
ENG 373 Fiction as Genre  
ENG 374 Drama as Genre  
ENG 378 Individual Authors  
ENG 380 Topics in Language and Literature  
** ENG 381 Literatures of Asia  
ENG 407 Creative Writing III  
ENG 492 Practicum in English  
ENG 503 Creative Non-Fiction  
ENG 506 Writing in the Professions  
ENG 507 Workshop For Writers  
ENG 511 Writing for the Professions  
ENG 550 Language Theory  
ENG 560 Writing Theory  
ENG 570 Contemporary Literature Criticism  
ENG 580 Methods Teaching Composition  
*only if taken in addition to C2 Gen Ed requirement  
**only if taken in addition to Non-Western Gen Ed requirement

Required Gen. Ed. course in World Literature:

Choose one of the following ........................................3  
ENG 123 European Writers or ENG 385 Literatures of Europe or ENG 381 Literatures of Asia
English Major Options
The English faculty encourages majors to plan their schedules on the basis of both intellectual and career interests. The following options illustrate some ways in which an English major can be combined with a minor or selected electives to produce excellent preprofessional preparation. Consult with a faculty advisor to develop an individualized plan.

Teacher Education Option
For students wishing to meet the requirements for a teaching certificate in English from the Illinois State Board of Education.
General Education .................................................................39
Foreign Language .................................................................3-14*
English major ........................................................................40
Secondary Education professional courses .........................42
Total 124-135

Preprofessional or Graduate School Option
Prepares student for professional training (such as law school or library science) or graduate school in English.
General Education .................................................................40
Foreign Language .................................................................3-14*
English Major ........................................................................33
Minor, depending on interest (for law school, political science; for library science, computer science and/or another CLAS area; for graduate school, foreign language, history, philosophy, African-American studies) .........................................................20
E1ectives or second Minor ................................................20**
Total 124

English Major/Business Minor Option
For students interested in an MBA program or a number of business and professional fields.
General Education .................................................................40
Foreign Language .................................................................3-14*
English Major ........................................................................33
Business Minor (Some business minor courses will fulfill gen. ed.) .................................................................27-30
E1ectives or second Minor ................................................10-24**
Total 124

English Major/Writing Option
For students interested in creative writing or preparation for professional writing, publishing, editing, advertising, etc.
General Education .................................................................40
Foreign Language .................................................................3-14*
English Major (ENG 495 could be creative project) ...............33
Electives, or Minor (suggested: mass communications for students interested in advertising), or courses selected from creative writing sequence (ENG 207, 303, 307, 407, 503, 507), or advanced writing sequence (ENG 300, 301, 304, 305, 306), ENG 492, ENG 580........37-48**
Total 124

Minors in English
I. Minor in Literature
Required Courses
The English minor in literature provides (1) a foundation in the historical study of literature and (2) an opportunity to construct an individual program in English, American, and other literatures, literary theory, and genre studies.
ENG 233 American Literature to 1865 or
ENG 235 American Literature 1865 to Present ...............3
ENG 237 British Literature to 1800 or
ENG 239 British Literature 1800 to Present ...............3
ENG 347 Shakespeare ..............................................................3
Electives .................................................................................9
Three courses from any two or more of the following groups: Group 1, British Periods; Group 2, American Periods; Group 3, Genres; Group 4, Individual Authors; Group 5, Cultural Literary Studies; and Group 7, Criticism and Theory.

II. Minor in Creative Writing
Three of the following: ................................................9
ENG 207 Creative Writing I
ENG 303 Autobiography
ENG 307 Creative Writing II
ENG 407 Creative Writing III
ENG 495 Independent Study
One course from 3 of the following groups: .................9
GROUP 1: British Periods
GROUP 2: American Periods
GROUP 3: Genres
GROUP 4: Individual Authors
GROUP 5: Cultural Literary Studies
GROUP 6: Topics in Language and Composition (excluding ENG 580 Methods of Teaching Composition)
GROUP 7: Criticism and Theory

* Candidates for the B.A. degree must meet university foreign language requirements.
** Number of elective hours is determined by number of hours needed in foreign language to meet B.A. requirements.
III. Minor in Professional Writing

This minor is intended to help prepare students for writing-intensive jobs or careers, or for advanced study.

**Three of the following** ....................................................9
ENG 305 Technical Writing
ENG 306 Business Communication
One of ENG 311/FLL 311 Introduction to Language ENG
312 English Grammar

**Three selected from the following categories** ......... 9
1. One of ENG 300 Advanced Writing-Exposition
   ENG 301 Advanced Writing-Argumentative Writing
   ENG 304 Advanced Writing-Research in Individual Disciplines
2. One of ENG 207 Creative Writing I
   ENG 303 Autobiography
3. One or two of ENG 506 Writing in the Professions
   ENG 550 Language Theory
   ENG 560 Writing Theory
   ENG 580 Theories & Methods of Teaching Composition
4. ENG 492 Practicum in English
5. One upper-division literature course (writing intensive) upon approval of department chair.

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**Course Descriptions**

**Lower Division**

ENG 101  *English Composition* 3 hrs.
*(Gen. Ed. C1)*
Principles of clear and effective writing; analysis of essays as models for writing. Required for all freshmen.

ENG 115  *Introduction to Literature* 3 hrs.
*(Gen. Ed. HL)*
Elements, techniques, and forms of fiction, drama, and poetry.

ENG 123  *European Writers* 3 hrs.
*(Gen. Ed. HL)*
Study of the representation of human values in significant texts (in translation) by European writers.

ENG 124  *American Writers* 3 hrs.
*(Gen. Ed. HL)*
Representative works by significant writers from early periods to the present.

ENG 127  *British Writers* 3 hrs.
*(Gen. Ed. HL)*
Representative works by significant writers from the Middle Ages to the present.

ENG 129  *Introduction to African American Literature* 3 hrs.
*(Gen. Ed. HL)*
Introduction to African American literature from the 1700’s to the present.

ENG 130  *Introduction to Native American Literatures* 3 hrs.
*(Gen. Ed. CD, Gen. Ed. NW)*
Introduction to Native American literatures from oral storytelling traditions to contemporary genres.

ENG 180  *Introduction to English Education* 1 hr.
Introduction to the curriculum, state and national standards, and professional expectations for English Education in secondary schools; registration open only to English Education majors or by consent of instructor.

ENG 190  *Women in Literature* 3 hrs.
*(Gen. Ed. HL)*
Images of women as portrayed in literature. Readings selected from established classics, as well as more recent works by and about women. Women of diverse personalities meeting particular problems in particular environments and times.

ENG 233  *American Literature to 1865* 3 hrs.
Introduction to the aesthetic and cultural history and to significant texts.

ENG 235  *American Literature 1865 to Present* 3 hrs.
Introduction to the aesthetic and cultural history and to significant texts.

ENG 237  *British Literature to 1800* 3 hrs.
Introduction to the aesthetic and cultural history and to significant texts.

ENG 239  *British Literature 1800 to Present* 3 hrs.
Introduction to the aesthetic and cultural history and to significant texts.

ENG 270  *Introduction to Literary Criticism and Theory* 3 hrs.
Introduction to the study and practice of multiple methods of literary interpretation, criticism, and theory.

**Upper Division**

**Advanced Writing Courses**

ENG 300  *Exposition* 3 hrs.
*(Gen. Ed. C2)*
Intensive practice in major techniques of exposition. Practical writing situations. Prerequisite: ENG 101 and junior standing.

ENG 301  *Argumentative Writing* 3 hrs.
*(Gen. Ed. C2)*
Trains ability to think critically and write persuasively; logical and emotional appeals in writing. Prerequisite: ENG 101 and junior standing.
ENG 304 Research in Individual Disciplines 3 hrs.
( Gen. Ed. C2)
Major research paper on a topic related to student's major. Training in a variety of writing techniques. Prerequisite: ENG 101 and junior standing.

ENG 305 Technical Writing 3 hrs.
( Gen. Ed. C2)
For engineering and science students: techniques of exposition and report writing. Prerequisite: ENG 101 and junior standing.

ENG 306 Business Communication 3 hrs.
( Gen. Ed. C2)
Principal types of business letters and reports. Prerequisite: ENG 101 and junior standing.

Literature and Language

ENG 311 Introduction to Language 3 hrs.
Introduction to the study of language; its structure, acquisition, and function in society. Cross listed as FLL 311.

ENG 312 English Grammar 3 hrs.
Study of English grammatical structures. Applications of grammatical theory to written texts. Of particular value to elementary teaching majors and secondary English teaching majors.

ENG 320 Young Adult Literature 3 hrs.
Intensive study and analysis of literature for young adults.

ENG 329 Studies in African American Literature 3 hrs.
Intensive study of selected literary works, authors, and movements in African American literature.

ENG 330 Studies in Native American Literature 3 hrs.
Intensive study of the diverse literatures of Native American peoples. Novels, short stories, poetry, literary criticism.

ENG 331 Studies in Women Writers 3 hrs.
Intensive study of literary and critical texts written by women.

ENG 332 Early American Literature 3 hrs.
Intensive study of issues, movements, or themes characteristic of the period.

ENG 334 19th Century American Literature 3 hrs.
Intensive study of issues, movements, or themes characteristic of the period.

ENG 336 20th Century American Literature 3 hrs.
Intensive study of issues, movements, or themes characteristic of the period.

ENG 341 Medieval English Literature 3 hrs.
Intensive study of issues, movements, or themes characteristic of the period.

ENG 344 Renaissance English Literature 3 hrs.
Intensive study of issues, movements, or themes characteristic of the period.

ENG 347 Shakespeare 3 hrs.
Intensive study of selected plays and poetry of Shakespeare.

ENG 358 18th Century British Literature 3 hrs.
Intensive study of issues, movements, or themes characteristic of the period.

ENG 361 British Romantic Literature 3 hrs.
Intensive study of issues, movements, or themes characteristic of the period.

ENG 363 British Victorian Literature 3 hrs.
Intensive study of issues, movements, or themes characteristic of the period.

ENG 364 20th Century British Literature 3 hrs.
Intensive study of issues, movements, or themes characteristic of the period.

ENG 368 Science Fiction and Fantasy 3 hrs.
Study of theories and significant examples of science fiction and fantasy.

ENG 370 Literary Criticism and Theory 3 hrs.
Survey of literary criticism and theory from classical Greece to the 20th century. Emphasis on development of philosophies of literature and literary criticisms and theories.

ENG 372 Poetry as Genre 3 hrs.
Study of theories and significant examples of poetry as genre.

ENG 373 Fiction as Genre 3 hrs.
Study of theories and significant examples of fiction as genre.

ENG 374 Drama as Genre 3 hrs.
Intensive study of movements, theories, and forms in the genre of drama.

ENG 378 Individual Authors 3 hrs.
Studies in the works of a selected author or authors. Course content of individual sections to be selected by instructor. May be repeated with a different author(s) for a maximum of nine hours, only six of which will count for English requirement.

ENG 380 Topics in Language and Literature 3 hrs.
Topics of special interest which may vary each time course is offered. Topic stated in current Schedule of Classes. May be repeated under different topics for a maximum of 6 hours credit.

ENG 381 Literatures of Asia 3 hrs.
( Gen. Ed. NW)
Study of the cultural traditions of Asia through selected literary classics. Prerequisites: 3 hrs. of college-level literature or consent of instructor.
ENG 385 Literatures of Europe 3 hrs.  
(Gen. Ed. HL)  
Focuses on the cultural contexts of significant texts (read in translation) from Europe. Prerequisites: one college-level course in literature and junior-level standing, or permission of instructor.

ENG 391 Methods of Teaching Writing 3 hrs.  
Methods for incorporating composition and writing theory, research in writing pedagogy, and a range of writing tasks into language arts curriculum; registration open only to English education majors or by consent of instructor. Prerequisites: ENG 101 and ENG 180.

ENG 392 Methods of Teaching Literature and Reading 3 hrs.  
Methods for incorporating literary theory, a range of literary texts, and research in reading and literary studies pedagogy into secondary school language arts curriculum; registration open only to English education majors or by consent of instructor. Prerequisites: ENG 180; ENG 233 or ENG 235; ENG 237 or ENG 239; ENG 270; ENG 320; ETE 360; advancement to candidacy in teacher education.

ENG 472 Methods of Teaching Integrated Language Arts 3 hrs.  
Study of the inter-relationships among writing, reading and interpreting texts, speaking, listening, speech, and technology for diverse student populations and diverse professional contexts in secondary language arts instruction; registration open only to English education majors or by consent of instructor. Prerequisites: ENG 347, ENG 391, ENG 392, COM 103; Concurrent registration in ETE 379.

ENG 480 Senior Project 3 hrs.  
Systematic practice in research methods and development, production, and presentation of an individual project. Prerequisite: senior standing.

ENG 492 Practicum in English 1-3 hrs.  
Supervised writing projects in conjunction with student service, volunteer, or work activities. Pass/Fail. Prerequisites: completion of junior-level composition requirement; consent of Department Chair.

ENG 495 Independent Study 1-3 hrs.  
Independent study and research in a specific field of English language or phase of literary production. May be repeated for a maximum of 6 hrs. credit. Prerequisite: consent of Department Chair.

ENG 500 Theory and Practice of English 3 hrs.  
Overview of the practices, theories, and history of the field of English and an introduction to the Bradley program. Required of all graduate students in English. Must be taken in the first nine hours.

ENG 506 Writing In the Professions 3 hrs.  
Study and practice of the writing conventions and rhetorical characteristics of individual professions.

ENG 508 Composing Hypertext 3 hrs.  
Elements of hypertext composition, mechanics, style, and theory. Prerequisite: graduate standing; or specially qualified junior or senior; or completion of C2 general education requirement; or consent of instructor.

ENG 550 Language Theory 3 hrs.  
Study of the relationships between language and writing, thinking, and society. Prerequisite: senior or graduate standing.

ENG 560 Writing Theory 3 hrs.  
Theoretical approaches to the study of writing. Prerequisite: senior or graduate standing.

ENG 570 Contemporary Literary Criticism 3 hrs.  
Advanced study of contemporary critical approaches to literature, including, but not limited to, feminism, semiotics, cultural criticism, poststructuralism. Study of the critical theories and applications of the criticisms to literary texts.

ENG 580 Theories and Methods of Teaching Composition 3 hrs.  
Theoretical and pedagogical issues and approaches in teaching composition.

Creative Writing Sequence

ENG 207 Creative Writing I 3 hrs.  
Introduction to imaginative writing. Writing and readings: fiction, poetry, plays.

ENG 303 Autobiography 3 hrs.  
Practice in informal and formal writing based on personal experience. Problems of investigation and communication. Prerequisite: ENG 101 and junior standing.

ENG 307 Creative Writing II 3 hrs.  
Intensive study and production of imaginative work. Prerequisite: ENG 207 or consent of instructor.

ENG 407 Creative Writing III 3 hrs.  
Individual projects. Emphasis on manuscript preparation. Prerequisites: ENG 207, 307; consent of instructor.

ENG 503 Creative Non-Fiction 3 hrs.  
Practice in writing literary non-fiction genres, such as autobiography, biography, nature writing, and travel writing. Prerequisite: submission to instructor of an acceptable manuscript.

ENG 507 Workshop for Writers 3 hrs.  
Individual guidance in creative writing projects. May be repeated for a maximum of six hours credit. Prerequisite: consent of instructor, after submission of an acceptable manuscript.
Environmental Science Program

**FACULTY COORDINATING COMMITTEE** Taylor (Chemistry); McConnaughay (Biology); Roos (Physics).

The interdepartmental major in environmental science is sponsored jointly by the departments of biology, chemistry, and physics. The objectives of the program are to provide the student with the necessary background for a professional career in the area of environmental science or entrance into a graduate program.

A student must choose one of three concentrations: environmental science-biology, environmental science-chemistry, or environmental science-physics. Each student will be assigned an advisor from the department of the chosen concentration. For all concentrations the student must take the following core courses:

- **BIO 123, 124 Principles of Biology** ..............................................8
- **BIO 460 Ecology** ........................................................................4
- **BIO 470 Seminar** .........................................................................1
- **CHM 110, 111, 116, 117 General Chemistry** ...............................9
- **CHM 250 Organic Chemistry** ....................................................4
- **CHM 315 Environmental Chemistry** ..........................................3
- **GES 101, 102 Principles of Earth Science** ......................................4
- One of the following: ..................................................................3-4
  - **GES 201 Mineralogy**
  - **GES/BIO 302 Invertebrate Zoology**
  - **GES 321 Paleontology**
  - **Calculus**
  - **PHY 107, 108 General Physics** ...............................................8
- **GES 110, 111 Principles of Historical Geology** ............................4
- One of the following: ..................................................................3-4
  - **GES 201 Mineralogy**
  - **GES/BIO 302 Invertebrate Zoology**
  - **GES 321 Paleontology**
- **Calculus**
- **PHY 107, 108 General Physics** ...............................................8
- **GES 110, 111 Principles of Historical Geology** ............................4

Each concentration has the following additional requirements:

**Biology Concentration**
- **BIO 223 Organismic Biology** ..................................................5
- **BIO 420 Ecosystems Ecology**
  - **or**
  - **BIO 463 Plant Ecology** ............................................................4
- Two of the following: ..................................................................7-8
  - **BIO 302 Invertebrate Zoology**
  - **BIO 319 Ethology**
  - **BIO 323 Comparative Anatomy**
  - **BIO 324 Plant Diversity**

- **BIO 334 Reproduction and Identification of Flowering Plants**
- **BIO 381 Comparative Animal Physiology**
- **BIO 395 General Microbiology**
- Two additional biology courses approved by the advisor
  - (3 of these hours may be reading/research) .............................6-8
- **22-25**

The student must have a grade of C or better in all biology courses.

**Physics Concentration**
- **PHY 110, 201 University Physics** ..........................................8
- **PHY 202 Applied Quantum Physics** .........................................3
- **and the appropriate section of PHY 350 Advanced Physics Experiments** .........................................................1
- Three of the following: .................................................................9
  - **PHY 320 Optics**
  - **PHY 330 Nuclear Physics**
  - **PHY/BIO 345 Radiation Biology**
  - **PHY 361 Electronics**
  - **21**

**Chemistry Concentration**
- **CHM 191 Chemical Applications of BASIC Programming** ........1
- **CHM 320 Analytical Chemistry** ..............................................4
- **CHM 351 Organic Chemistry** ..................................................4
- **CHM 392 Chemical Literature** ................................................1
- **CHM 461 Physical Chemistry** ..................................................3
- **CHM 530 Advanced Analytical Chemistry** ...............................4
- **17**

**The biology concentration requires only one semester of calculus (4 hours).**
The Department of Foreign Languages offers training in French, German, Hebrew, Japanese, and Spanish. The courses offered include elementary, intermediate, and advanced language classes, literature, culture, general linguistics, translation, interpretation, and classes relating language to business. Many of the department’s students select a double major/minor with other disciplines in order to enhance capabilities for careers in education, international business or industry, and cultural or social services.

Students who wish to continue the same foreign language at the university level that they studied in high school must take the departmental placement exam. The test should be taken prior to course enrollment and is administered by the secretary of the foreign languages department. Students who place at the 200 level or above cannot receive credit for a course lower than that at which they placed. They are permitted to enroll for credit in a course higher than where they placed. Credit is not given on a transcript for courses below the placement level. The only exceptions to this rule are for Advanced Placement credit or CLEP credit, and approved credit must appear on the transcript before a student enrolls in a foreign language course.

**Language Requirements for the B.A. Degree**
The B.A. degree requires completion of a 202 or 300-level foreign language course. Only three hours of foreign language are required if the student places at the 202 level or above; as many as 14 hours may be required if the student has less proficiency.

**Language Majors**
The department offers a major or a minor in French, German, and Spanish. Students planning to teach French, German or Spanish at the secondary level are required to be certified in the state of Illinois and must complete the requirements of a secondary teaching certificate. These requirements are listed under the Department of Teacher Education (Secondary Education).

**Major Requirements**

**French Major**
Students majoring in French must complete a minimum of 24 hours of credit in French at the 300 level or above. In consultation with their French advisor, their French courses must include the following:
- FLF 303 Composition (prerequisite for other 300-level courses)
- FLF 304 Conversation
- FLF 320 Phonetics
- One Literature Course: FLF 325, FLF 340, or FLF 341
- One Civilization Course: FLF 322 or FLF 321
- Three Electives

In addition, students must earn a grade of C or better in all French courses, with the exception of the practicum FLF 492, in which they must receive a P. Twelve hours of credit must be taken at Bradley, three of which must be taken during the senior year. Study abroad is also highly recommended.

**German Major**
Students majoring in German must complete a minimum of 24 hours of credit in German at the 300 level or above, which must be approved by their foreign language advisor. In addition, students must earn a grade of C or better in all German courses, with the exception of the practicum FLG 492, in which they must receive a P. Twelve hours of credit must be taken at Bradley, three of which must be taken during the senior year. Study abroad is also highly recommended.

**Spanish Major**
Students majoring in Spanish must complete a minimum of 24 hours of credit in Spanish at the 300 level or above, in consultation with their Spanish advisor. Spanish courses must include the following:
- FLS 303 Composition
- FLS 304 Conversation
- FLS 325 Introduction to Literature
- One Linguistics Course: FLS 320
- One Peninsular Literature Course: FLS 340 or FLS 341
- One Latin American Literature Course: FLS 342 or FLS 343
- One Civilization Course: FLS 321 or FLS 322
- One Elective
In addition, students must earn a grade of C or better in all Spanish courses, with the exception of FLS 492, in which they must receive a P. Twelve hours of credit must be taken at Bradley, three of which must be taken during the senior year. Study abroad is also highly recommended.

Minors Requirements

French Minor
For the French minor, requirements are a minimum of 18 hours of credit in French at the 300 level or above, with at least nine of the hours to be taken at Bradley, and approval by the foreign language advisor. In addition, students must earn a grade of C or better in all French courses, with the exception of FLS 492, in which they must receive a P.

German Minor
For the German minor, requirements are a minimum of 18 hours of credit in German at the 300 level or above, with at least nine of the hours to be taken at Bradley, and approval by the foreign language advisor. In addition, students must earn a grade of C or better in all German courses, with the exception of FLG 492, in which they must receive a P.

Spanish Minor
For the Spanish minor, requirements are a minimum of 18 hours of credit in Spanish at the 300 level or above, with at least nine of the hours to be taken at Bradley, and approval by the foreign language advisor. Their Spanish courses must include the following:
- FLS 303 Composition
- FLS 304 Conversation
- One Peninsular Literature Course: FLS 340 or FLS 341
- One Latin American Literature Course: FLS 342 or FLS 343
- One Civilization Course: FLS 321 or FLS 322
- Two Electives
In addition, students must earn a grade of C or better in all Spanish courses, with the exception of FLS 492, in which they must receive a P.

Foreign Study Program
For students interested in studying at a foreign university, programs are available at selected sites abroad. For further information contact the International Programs and Study Abroad Office.

Course Descriptions

French

FLF 101, 102 Elementary French 4 hrs. each
Necessary vocabulary, elementary structures, and oral and written practice. Training in the four language skills of listening, speaking, reading, and writing. Laboratory included. Prerequisite: FLF 101 or equivalent is prerequisite for FLF 102.

FLF 201, 202 Intermediate French 3 hrs. each
Continuation of basic structures and vocabulary, plus review. Emphasis on further development of the four language skills through oral and written practice and readings in literature, culture and civilization. Prerequisites: FLF 102 or equivalent; FLF 201 is prerequisite for FLF 202.

FLF 303 Composition 3 hrs.
Emphasis on developing skills for written expression through writing letters, reports, and essays. Prerequisite: FLF 202, or equivalent.

FLF 304 Conversation 3 hrs.
Emphasis on improving listening comprehension and speaking proficiency through free conversation and oral reports. Prerequisite: FLF 202, or equivalent.

FLF 316 Topics in French Language and Literature 3 hrs.
Topics of special interest which may vary each time course is offered. Topic stated in current Schedule of Classes. May be repeated under a different topic for maximum of 9 hrs. credit. Prerequisite: FLF 303 or equivalent.

FLF 320 French Phonetics 3 hrs.
French phonetic elements in isolation as well as in normal speech patterns. Practice in correct pronunciation of individual sounds, words, phrases, and sentences. Individual and class work with tape recordings. Required for all French majors. Prerequisite: FLF 303 or consent of instructor.

FLF 321 French Culture and Civilization 3 hrs.
An introduction to the culture and civilization of France, including the history, geography, politics, literature, arts, and daily life from Prehistory to the end of the Colonial Empire (1960’s). Prerequisite: FLF 303 or consent of instructor.

FLF 322 Contemporary France 3 hrs.
Examines social, political, and cultural aspects of modern France, including education, immigration, government, family, and work, as well as France’s relationship to Europe and the world. Sources include texts, articles, and newscasts. Prerequisite: FLF 303 or consent of instructor.

FLF 325 Introduction to French Literature 3 hrs.
(General Ed. HL)
Principles and methods for studying literature. Selected works of French fiction, drama, and poetry. Prerequisite: FLF 303 or consent of instructor.

FLF 334 Commercial French 3 hrs.
Introduction to language skills for commercial communication with French speaking countries. Emphasis on written and oral activities dealing with banks, sales, freight, insurances, advertisement, export, trade, and unions. Prerequisites: FLF 303 or consent of instructor.
**FLF 340 French Literature I** 3 hrs.
An historical survey of French literature from the Middle Ages through the eighteenth century, examining the major authors of the period in their cultural and literary context. Prerequisite: FLF 303.

**FLF 341 French Literature II** 3 hrs.
An historical survey of French literature from the nineteenth century to the present, examining the major authors of the period in their cultural and literary context. Prerequisite: FLF 303.

**FLF 490 Topics in French Language or Literature** 3 hrs.
Topics of special interest which may vary each time course is offered. Topic stated in current Schedule of Classes. May be repeated for a maximum of nine credits. Prerequisites: FLF 303, 325 or consent of instructor.

**FLF 316 Topics in German Language and Literature** 3 hrs.
Topics of special interest which may vary each time course is offered. Topic stated in current Schedule of Classes. May be repeated under a different topic for maximum of 9 hrs. credit. Prerequisite: FLF 202, or equivalent.

**FLG 101, 102 Elementary German** 4 hrs. each
Necessary vocabulary, elementary structures, and oral and written practice. Training in the four language skills of listening, speaking, reading, and writing. Laboratory included. Prerequisite: FLG 101 or equivalent is prerequisite for FLG 102.

**FLG 201, 202 Intermediate German** 3 hrs. each
Review of basic structures and vocabulary. Emphasis on further development of the four language skills through oral and written practice and readings in literature, culture, and modern life. Prerequisite: FLG 101 or equivalent; FLG 201 is prerequisite for FLG 202.

**FLG 303 Composition** 3 hrs.
Development of ability to write with ease and accuracy in the German language: creative, business, technical, and expository writing. Translation skills. Thorough grammar review. Prerequisite: FLG 202, or equivalent.

**FLG 304 Conversation** 3 hrs.
Emphasis on improving listening comprehension and speaking proficiency through free and controlled conversation, oral reports, and small discussion groups. Emphasis on correct idiomatic use of the German language in everyday situations. Prerequisite: FLG 202, or equivalent.

**FLG 316 Topics in German Language and Literature** 3 hrs.
Topics of special interest which may vary each time course is offered. Topic stated in current Schedule of Classes. May be repeated under a different topic for maximum of 9 hrs. credit. Prerequisite: FLF 202, or equivalent.

**FLG 325 Introduction to German Literature** 3 hrs.
(Gen. Ed. HL)
Critical analysis of different forms, movements, and themes in fiction, drama, essay, and poetry of German-speaking lands. Prerequisite: FLG 202, or equivalent.

**FLG 321 Survey of German Culture and Civilization** 3 hrs.
Major periods in the culture and civilization of Germany and German-speaking countries from the Medieval Period to the present. Taught in German. Prerequisites: FLG 202 or equivalent.

**FLH 101, 102 Elementary Hebrew** 4 hrs. each
Emphasis on basic structures and vocabulary. Intensive practice in listening, speaking, reading, and writing. Laboratory required. Prerequisite: FLH 101 is prerequisite for FLH 102.

**FLH 201, 202 Intermediate Hebrew** 3 hrs. each
Review of basic structures and vocabulary. Emphasis on development of language skills. Readings from modern authors; composition. Laboratory required. Prerequisite: FLH 102. FLH 201 is prerequisite for FLH 202.

**FLJ 101, 102 Elementary Japanese** 5 hrs. each
Necessary vocabulary, elementary structures, and oral and written practice. Listening, speaking, reading, and writing. Laboratory included. Prerequisite: FLJ 101 is prerequisite for FLJ 102.
FLJ 201, 201 Intermediate Japanese 5 hrs. each
Continuation of basic structures and vocabulary, plus review. Emphasis on further development of the four language skills through oral and written practice and readings in literature, culture, and civilization. Prerequisites: FLJ 102 or equivalent; FLJ 201 is prerequisite for FLJ 202.

Spanish

FLS 101, 102 Elementary Spanish 4 hrs. each
Necessary vocabulary, elementary structures, and oral and written practice. Training in the four language skills of listening, speaking, reading, and writing. Laboratory included. Prerequisite: FLS 101 or equivalent is prerequisite for FLS 102.

FLS 201, 202 Intermediate Spanish 3 hrs. each
Continuation of basic structures and vocabulary, plus review. Emphasis on further development of the four language skills through oral and written practice and readings in literature, culture, and civilization. Prerequisites: FLS 102 or equivalent; FLS 201 is prerequisite for FLS 202.

FLS 303 Composition 3 hrs.
Emphasis on improving written proficiency. Thorough grammar review, translation exercises, and writing various types of prose. Emphasis on correct, idiomatic use of Spanish in everyday situations. Prerequisite: FLS 202, or equivalent.

FLS 304 Conversation 3 hrs.
Emphasis on improving speaking proficiency and listening comprehension through free conversation and oral presentations. Emphasis on correct, idiomatic use of Spanish in everyday situations. Prerequisite: FLS 202, or equivalent.

FLS 316 Topics in Hispanic Language and Literature 3 hrs.
Topics of special interest which may vary each time course is offered. Topic stated in current Schedule of Classes. May be repeated under a different topic for maximum of 9 hrs. credit. Prerequisite: FLS 325 or equivalent.

FLS 320 Spanish Phonetics 3 hrs.
Spanish phonetic elements in isolation as well as in normal speech patterns. Practice in correct pronunciation of individual sounds, words, phrases, and sentences. Individual and class work with tape recordings. Prerequisites: FLS 303 or equivalent.

FLS 321 Peninsular Spanish Civilization & Culture 3 hrs.
An integrated survey of civilization and culture of the Iberian Peninsula from prehistoric times to the present. Survey concentrates on Spanish arts and intellectual achievements. Prerequisite: FLS 303 or consent of instructor.

FLS 322 Latin-American Civilization & Culture 3 hrs.
An integrated survey of Latin-American civilization and culture from pre-Columbian times to the present. Survey concentrates on Latin-American arts and intellectual achievements. Prerequisite: FLS 303 or consent of instructor.

FLS 325 Introduction to Literature 3 hrs. (Gen. Ed. HL)
Elements, techniques, and forms of Hispanic fiction, drama, and poetry. Readings in Peninsular and Spanish American literature. Prerequisite: FLS 303 and 304, or consent of instructor.

FLS 334 Commercial Spanish 3 hrs.
Introduction to language skills for commercial communication and Hispanic business practices. Prerequisites: FLS 303, 304; or consent of instructor.

FLS 340 Spanish Literature I 3 hrs. (Gen. Ed. HL)
Analysis of human values in representing works of major Iberian writers of Medieval, Renaissance, and Baroque periods. Prerequisites: FLS 325 or consent of instructor. FLS 321 recommended.

FLS 341 Spanish Literature II 3 hrs. (Gen. Ed. HL)
Values-based analysis of representative works of major Iberian authors from Neo-classical, Romantic, and Realist-Naturalist periods. Prerequisites: FLS 325 or consent of instructor; FLS 321, 340 recommended.

FLS 342 Survey of Hispanic-American Literature I 3 hrs. (Gen. Ed. NW)
Analysis of Hispanic-American literature from its roots in the indigenous pre-Columbian civilizations to Modernism. Prerequisites: FLS 325 or consent of instructor. FLS 322 recommended.

FLS 343 Survey of Hispanic-American Literature II 3 hrs. (Gen. Ed. NW)
Analysis of non-Western cultures and traditions in representative works by major authors of Hispanic-America from 1910 to present. Prerequisites: FLS 325 or consent of instructor. FLS 322, 342 recommended.

FLS 403 Advanced Conversation and Composition 3 hrs.
Advanced course in speaking and writing. Prerequisites: FLS 325 or consent of instructor.

FLS 430 Introduction to Translation 3 hrs.
Methods and procedures of translating from Spanish to English and from English to Spanish. Prerequisites: FLS 403 or consent of instructor.
FLS 490 Topics in Hispanic Language or Literature 3 hrs.
Topics of special interest which may vary each time course is offered. Topic stated in current Schedule of Classes. May be repeated for maximum of 9 hrs. credit. Prerequisites: FLS 325 or consent of instructor.

FLS 492 Practicum in Spanish 1-3 hrs.
Supervised work study in community service activities involving use of the foreign language. Pass/Fail. Prerequisite: consent of department chair.

FLS 495 Independent Study 1-3 hrs.
Independent study and research in a specific field or phase of Spanish language or literary production. May be repeated for maximum of 6 hrs. credit. Prerequisites: junior or senior standing; consent of department chair.

Specialized Language Courses

FLL 311 Introduction to Language 3 hrs.
Introduction to the study of language; its structure, acquisition, and function in society. Cross listed as ENG 311.
Geological Sciences

Course Descriptions

GES 101 Principles of Earth Science 3 hrs. (Gen. Ed. FS)
The earth in space; weather, earth materials, and geological processes that control development of the earth's surface.

GES 102 Principles of Earth Science Laboratory 1 hr.
Laboratory related to GES 101. One two-hour laboratory per week. Prerequisite: GES 101 or equivalent, or concurrent enrollment.

GES 110 Principles of Historical Geology 3 hrs. (Gen. Ed. FS)
Introduction to history of the earth and its life forms; methods used by geologists to decipher earth history using rocks and fossils. Theory of evolution, origins of life, fossilization, animal and plant extinctions, mountain building, plate tectonics, and the Ice Age.

GES 111 Principles of Historical Geology Laboratory 1 hr. (Gen. Ed. FS)
Laboratory related to GES 110. Study and interpretation of topographic and geologic maps, earth history, and fossils. One two-hour laboratory per week. Prerequisite: GES 110 or equivalent, or concurrent enrollment.

GES 201 Mineralogy 4 hrs.
The crystalline state: physical and chemical properties of minerals; occurrence, association, and origin of the silicate and more important non-silicate minerals. Lecture and laboratory. Prerequisites: GES 101; one semester of college chemistry, or consent of the instructor.

GES 300 Oceanography: The Human Perspective 3 hrs. (Gen. Ed. TS)
Introduction to scientific oceanography and its relationship to human life. History of oceanography and its technology; crustal movements; the ocean as a source of mineral resources; the variety of ocean life such as jellyfish and sharks, and their danger; whales and the human perspective of "lower" life; sound and submarine warfare, waves and their potential energy and destructive capacity; human pollution. Prerequisite: one college-level science course.

GES 302 Invertebrate Zoology 4 hrs.
Detailed biological survey of major groups of invertebrate animals. Emphasis on marine phyla with good fossil representation. Dissection of representative types. Lecture and laboratory. Cross listed as BIO 302. Prerequisite: elementary zoology or biology or historical geology with laboratory, or consent of instructor.

GES 321 Paleontology 4 hrs.
Life, from its earliest record to the present. Emphasis on large scale aspects of evolution. General survey of pertinent concepts in morphology, genetics, taxonomy, and ecology; introduction to elementary quantitative methods; megascopic and microscopic study of major types of fossils. Lectures, laboratory work, independent research, field trips. Prerequisite: GES 110, 111, 302; or consent of instructor.

GES 407 Sedimentology 4 hrs.

GES 421 Stratigraphy 4 hrs.
Concepts and methods in description, classification, correlation, and interpretation of stratified rocks. Field studies. Prerequisite: GES 321.
FACULTY  Associate Professors Jones, Robertson (chair), Williams; Assistant Professors Brown, Gates, Scott, A., Toxqui; Temporary Assistant Professors Faber, Kidd, Smith.

The history faculty believes that students should view history as a study of human contributions from all parts of the world. For history majors, a curriculum is planned to provide an opportunity for more detailed study of human civilizations in Europe, the Americas, and the non-Western world.

While some history majors prepare themselves to teach in secondary schools, junior colleges, or colleges, many other careers are open to students who have become competent in historical analysis. Professions such as business, law, library science, archaeology, museum and archival work and a variety of local, state and federal government positions are open to students majoring in history. Faculty counselors will talk with students desiring information on career opportunities.

Major Requirements

Students majoring in history must complete a minimum of 30 hours of history credit, 24 of which must be above 100 level and 15 of which must be above the 200 level. Majors, in consultation with their history advisor, must fulfill the following requirements:

1. Successful completion of Evolution of Western Civilization, a core course required of all Bradley students (not counted as part of the 30-hour history minimum)
2. Africa, Asia, Latin America, Middle East, or Russia (6 hours, 3 of which must be 300 level or above)
3. 6 hours of U.S. history, including either 203 or 204 and 3 hours of 300 level
4. 6 hours of European history at the 300 level (Western Civilization is a prerequisite for all European history courses)
5. HIS 350 Historical Methods Seminar (Prerequisite: 3 hours of history or consent of instructor.)
6. 6 hours of electives from History Department.
7. HIS 450, 451, or 452 Research Seminar
8. Cross-cultural component. In addition to the 30 hours, all History majors must complete one of the four following options:
   a. An approved international study experience selected from a variety of Bradley programs including international internships, Bradley Summer Semester abroad, and directed programs at selected international institutions. A minimum of 6 hours must be taken abroad. (If a student studies abroad at one of the Bradley-directed Study Abroad programs other than the Bradley European Summer Semester, the requirement of 24 hours of the last 30 hours on campus is modified to 30 of the last 60 hours. Courses taken in a Bradley-directed program during the senior year will count towards fulfilling the requirements of having 24 of the last 30 semester hours on campus).
   b. Successful completion of the equivalent of 202 in any foreign language.
   c. At least 6 hours drawn from the following courses: AAS 200, 211, 300; HIS 304, 305, 339, 382; WMS 200, ENG 129, 190, 329, 330, 331, SOC 313, 314, 315. History courses in this category may also count towards the major.
   d. Secondary Education students can fulfill this requirement through ETE 280 and one of the approved courses in category c.

Students desiring to earn a teaching certificate in Illinois must have a minimum of 8 hours in U. S. History and 8 hours in European or World History. They also need a total of 36 hours of history and must complete the certification requirements listed under the Department of Teacher Education (Secondary Education).

History majors may earn either a B.A. or B.S. degree.

History Major – Business Minor

This program is for the student who wishes to combine a background in both history and business for the goal of immediate employment opportunities or entrance to an MBA program. In addition to the courses in history the minor requires 30 hours in the Foster College of Business Administration in the following courses: ATG 157, 158; ECO 221/100, 222; QM 262, FIN 322, BMA 172, 342, 352; and MTG 315. Students for the minor should also complete MTH 115. The dean of the Foster College of Business Administration must approve students for the minor.

History Minor

This minor is designed for students who wish to pursue a coherent and balanced program of study of history, with equal emphasis upon United States, European, and non-Western history. Students from outside or inside the College
of Liberal Arts and Sciences should find this concentration of study in a traditional humanities/social sciences discipline to be especially useful in preparing for law school, graduate work in library science, civil service employment, or museum and archival management.

The minor requires 18 hours total, distributed in the following manner:

<table>
<thead>
<tr>
<th>Course Description</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>One non-Western civilization course to be chosen</td>
<td>3</td>
</tr>
<tr>
<td>from HIS 103, HIS 104, HIS 105, HIS 107</td>
<td></td>
</tr>
<tr>
<td>U.S. history, 200 or 300 level</td>
<td>6</td>
</tr>
<tr>
<td>European history, 200 or 300 level</td>
<td>3</td>
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<tr>
<td>Non-Western history, 200 or 300 level</td>
<td>3</td>
</tr>
<tr>
<td>History elective</td>
<td>3</td>
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</tbody>
</table>

**Course Descriptions**

**HIS 103 Non-Western Civilization: Russian History** 3 hrs.  
*(Gen. Ed. NW)*  
Russian and Soviet history from its origins to the present. Major features of pre-modern, modern, and contemporary Russian civilization.

**HIS 104 Non-Western Civilization:**  
The Middle East Since Muhammad 3 hrs.  
*(Gen. Ed. NW)*  
History of the Middle East from the time of the prophet Muhammad to the present. Pre-modern, modern, and contemporary Middle East.

**HIS 105 Non-Western Civilization:**  
Latin America 3 hrs.  
*(Gen. Ed. NW)*  
Major social, economic, and political institutions and forces that have shaped Latin American society. Emphasis on socioeconomic changes in the 20th century that have polarized the social class structure and encouraged political upheaval.

**HIS 107 Non-Western Civilization: Modern Japan,**  
1860-Present 3 hrs.  
*(Gen. Ed. NW)*  
The rise of modern Japan: The growth of Japanese power and its influence in the world economy.

**HIS 201 American History: Social** 3 hrs.  
Topics of special interest which may vary each time course is offered. Topic stated in current Schedule of Classes.

**HIS 203 United States History to 1877** 3 hrs.  
Topics of special interest which may vary each time course is offered. Topic stated in current Schedule of Classes.

**HIS 204 United States History Since 1877** 3 hrs.  
Topics of special interest which may vary each time course is offered. Topic stated in current Schedule of Classes.

**HIS 300 The United States Since 1945** 3 hrs.  
Social-cultural, political, economic, and diplomatic aspects of U.S. history since 1945.

**HIS 301 Topics in American History: Intellectual** 3 hrs.  
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Topics of special interest which may vary each time course is offered. Topic stated in current Schedule of Classes. May be repeated under a different topic for a maximum of 6 hours credit.

**HIS 302 Topics in American History: Diplomatic** 3 hrs.  
Topics of special interest which may vary each time course is offered. Topic stated in current Schedule of Classes. May be repeated under a different topic for a maximum of 6 hours credit.

**HIS 303 American Urban History** 3 hrs.  
Growth and development of American cities in historical context.

**HIS 304 Women in American History** 3 hrs.  
Political, economic, and social status of women in American society since Colonial times. Reasons for the changing role of women; major problems confronting women in the 20th century.

**HIS 305 American Indian History** 3 hrs.  
History of the first Americans; Indian-White relations since 1492. Origins and varied cultures of American Indians.

**HIS 306 The United States Civil War Era** 3 hrs.  
U.S. history 1830-1877: events and developments leading to civil war, the war itself, and efforts to reconstruct the Union after 1865.

**HIS 308 Topics in American History: Political** 3 hrs.  
Topics of special interest which may vary each time course is offered. Topic stated in current Schedule of Classes. May be repeated under a different topic for a maximum of 6 hours credit.

**HIS 309 The History of U.S. Law Enforcement** 3 hrs.  
Historical roots of American law enforcement; establishment of an organized police in the U.S.; historical efforts to improve American police work.

**HIS 310 America and Vietnam 1940-Present** 3 hrs.  
The Vietnam War: America's role in it and its legacies for both nations.

**HIS 311 History of American Political Economy** 3 hrs.  
*(Gen. Ed. SF)*  
Analyzes the economic history of the United States, stressing the influence of government policy on economic development.

**HIS 312 U.S. Foreign Policy** 3 hrs.  
*(Gen. Ed. SF)*  
Mechanics and conduct of modern U.S. foreign policy-making. Cross listed as IS 312.

**HIS 313 U.S. Constitutional History,**  
1787-Present 3 hrs.  
Examines the meaning and significance of Constitutional law in American politics and diplomacy during the past 200 years.
HIS 314 Non-Western Civilization: Japan and World War II 3 hrs. (Gen. Ed. NW)
Analyzes Japanese militarism and expansionism and examines the significance of Japan's World War II defeat and its impact on the Asian/Pacific world.

HIS 320 Renaissance and Reformation 3 hrs.
Renaissance and Reformation as part of the transitional era between the Medieval and Modern ages. Renaissance emphasis on reason and humanism balanced by Reformation focus on faith and spiritual concerns.

HIS 321 Topics in European History: Intellectual 3 hrs.
Topics of special interest which may vary each time course is offered. Topic stated in current Schedule of Classes. May be repeated under a different topic for a maximum of 6 hours credit.

HIS 322 History of England 3 hrs.
From earliest times to the present. Not open to students with credit in HIS 345 or HIS 346.

HIS 323 Greek Civilization 3 hrs.
Classical Greek civilization up to the Macedonian conquest. Emphasis on emergence of democracy in Athens and its functioning in the famous 5th century B.C.

HIS 324 Barbarians in History 3 hrs.
Significant barbarian invaders of Inner Asia; their role in the development of human civilization.

HIS 325 Roman Civilization 3 hrs.
Values and institutions of Roman society during Kingship, Republic, and Empire periods. Emphasis on the Republic at its peak, Rome's imperialism, and complex issues involved in Rome's fall; also impact of Roman values and practices on Western civilization.

HIS 326 Modern Military Forces & Institutions 3 hrs. (Gen. Ed. SF)
European and American military experiences: 1700 to present.

HIS 327 Topics in European History: Cultural 3 hrs.
Topics of special interest which may vary each time course is offered. Topic stated in current Schedule of Classes. May be repeated under a different topic for a maximum of 6 hours credit.

HIS 328 England & the American Revolution 3 hrs.
American Revolution from the perspective of the common Anglo-Saxon cultural, political, economic, intellectual, and social heritage.

HIS 329 From Imperial to Nazi Germany 3 hrs.
Development of National Socialism: factors that led to the rise of Nazism; its origins in Imperial Germany and the Weimar Republic; its consequences in the Third Reich.

HIS 332 Modern Latin American History 3 hrs.
Political development of Latin America in the 19th and 20th centuries. Political changes linked to recent socio-economic transformations in the developing area. Emphasis on alternatives of reform, revolution, and military dictatorship.

HIS 334 Non-Western History: Social 3 hrs.
Topics of special interest which may vary each time course is offered. Topic stated in current Schedule of Classes. May be repeated under a different topic for a maximum of 6 hours credit.

HIS 335 Modern Mexico 3 hrs. (Gen. Ed. NW)
Social, economic, and political development of Mexico since independence. Contemporary problems facing a developing country which has already experienced one social revolution.

HIS 336 Early Non-Western History 3 hrs. (Gen. Ed. NW)
Analytical and comparative survey of the formative stages of early non-Western civilizations in five geographical regions. The basic cultural patterns that emerged will be studied, compared, and related to present developments. Prerequisites: CIV 100; or CIV 111, 112.

HIS 337 Modern Non-Western History 3 hrs. (Gen. Ed. NW)
Growth and development of non-Western civilizations. Reactions of indigenous peoples and cultural patterns to Western penetration and imperialism. Present development and practices. Prerequisite: CIV 100; or CIV 111, 112.

HIS 338 Russia Since 1917 3 hrs. (Gen. Ed. NW)
History of Russia from the Bolshevik Revolution to the present. Political, social, economic, and cultural development and theories.

HIS 339 Women in Global Perspective 3 hrs.
The changing status of women in light of global economic, social, and political changes in different regions of the world. How women have participated in and contributed to 20th century transformations of the family, community, workplace, social organization, and politics.

HIS 340 Contemporary Europe 3 hrs. (Gen. Ed. SF)
Survey of contemporary European history. Background information on the period before 1945; major institutions and problems of Western European society since World War II. Contemporary conditions in Western Europe.
HIS 341 The French Revolution  3 hrs.
The preconditions to 1789; the definition of revolution as opposed to reform or national liberation; the making and unmaking of governmental structures; the role of the inarticulate common people or “the crowd”; the role of war on the revolutionary process; the rise and fall of Napoleon Bonaparte; the failure to impose revolution by military conquest. Prerequisites: CIV 100; or CIV 111 and 112; or equivalent.

HIS 342 Nineteenth Century Europe  3 hrs.
The years of peace 1815-1914, with emphasis on social history; major movements for social change as the average man and woman experienced them. Early industrial capitalism, utopian and scientific socialism, the failed revolutions of 1848, the growth of working people’s organizations, the increase in formal democracy and standard of living by the end of the century, and the imperialist expansion in Asia and Africa. Prerequisites: CIV 100; or CIV 111 and 112; or equivalent.

HIS 345 History of England I  3 hrs.
The history of England from the earliest times to 1660.

HIS 346 History of England II  3 hrs.
The history of England from 1660 to the present.

HIS 350 Historical Methods Seminar  3 hrs.
Exploration of historical arguments and debates; methods of interpreting primary sources. Prerequisite: History major or consent of instructor.

HIS 375 Holocaust  3 hrs.
Development of Antisemitism in Europe and Germany and its consequences, culminating in the attempted annihilation of the Jews during World War II.

HIS 382 Women, Work, and Family in Europe  3 hrs.
Definition of work and where women have fit into the economy. Roles of single, married, divorced, and widowed women and mothers at each of the traditional political-economic landmarks: the growth of commercial capitalism, the industrial revolution, wars, depressions, political revolutions, and the formation of new national governments. Prerequisite: CIV 100; or CIV 111 and 112; or equivalent.

HIS 385 Science, Technology, and Society  3 hrs.
(Gen. Ed. SF)
Analysis of scientific and technological achievements, applications, and implications of the past half century, and their impact on the future. Emphasis on analysis of promises and threats of the growth of science and technology, and new ethical and social issues raised by technological progress.

HIS 405 Independent Reading in History  1-3 hrs.
Directed reading by qualified students with faculty guidance. For history majors primarily. May be repeated for maximum of 6 hrs. credit. Prerequisite: history major or consent of department chair.

HIS 406 Individual Study in History  1-3 hrs.
Special study of individual topics in history with faculty supervision. For history majors primarily. May be repeated for maximum of 6 hrs. credit. Prerequisite: history major or consent of department chair.

HIS 450 U.S. History Research Seminar  3 hrs.
Research paper required employing primary sources in U.S. history. May be repeated under different topic for a maximum of 6 hours. Prerequisites: HIS 203 or 204; HIS 350; senior standing; and history major; or consent of instructor.

HIS 451 European History Research Seminar  3 hrs.
Research paper required employing primary sources in European history. May be repeated under different topic for maximum of 6 hours. Prerequisites: HIS 350; a 300-level European history course; senior standing; and history major; or consent of instructor.

HIS 452 Area Studies Research Seminar  3 hrs.
Research paper required employing primary sources in African, Asian, Latin American, Middle Eastern, or Russian history. May be repeated under different topic for a maximum of six hours. Prerequisites: HIS 103, 104, 105, or 107; HIS 350; senior standing; and history major; or consent of instructor.

HIS 505, 506 Seminar in Directed Reading  1-3 hrs. each
Program of directed readings; analysis, synthesis, and interpretation of materials. Prerequisites: senior or graduate standing; 15 hrs. of college-level history with at least a B average; consent of department chair.

HIS 507, 508 Area Study in Directed Reading  1-3 hrs. each
Project and readings in area studies; e.g. Asia, Russia, Africa, or Latin America. Prerequisites: 15 hours of college-level history with at least a B average; consent of department chair.
Individualized Major Program

FACULTY  Early, (chair); Meyer, Zant.

The purpose of the individualized major program is to provide an opportunity for students to design their own courses of study. Students who have completed at least one semester at Bradley or at any other college or university may apply for the program.

Entry into the program presupposes a definite objective on the student's part. Students without definite academic plans should register in academic exploration rather than in the individualized major program.

Students in this program must create their own areas of specialization (majors) by developing programs of study around their own particular academic interests. These programs of study may span several academic disciplines, but cannot duplicate existing majors within the University.

Requirements

A. Students in the program must meet all University and College of Liberal Arts and Sciences requirements.

B. Students graduating in the program must have a 2.25 over-all grade point average.

C. Before being admitted into the program, students must submit a written statement of their objectives and a detailed curriculum for the approval of the advisors.

D. A staff of advisors provides assistance and direction to students in the program. Students will choose one advisor to meet with at least once each academic year for counseling and review.

E. The program offers both the B.A. and the B.S. degree. Those seeking the B.A. must complete two years of college level study of a foreign language, or the equivalent of such study.

Eligibility

Students are eligible for the program if they are at least second-semester freshmen, have fewer than 90 hours completed and/or in progress, and have a Bradley University grade point average of 2.5.
Institute of International Studies

FACULTY Professors C. Bukowski (Director), Tarzi; Associate Professor J. Bukowski; Assistant Professor Schopf; Affiliate Instructor Weck.

The Institute of International Studies offers programs of study leading to the Bachelor of Arts degree in international relations. This degree will serve as a basis for various careers in the field of international relations, for graduate work in international studies or for the understanding of international affairs by students who may not choose to work in that area after graduation.

The Institute of International Studies was founded in 1958 at the suggestion of Secretary of State John Foster Dulles. It was among the first in this field ever to be established on the undergraduate level in the United States.

Numerous student activities, special off-campus programs, co-op assignments, study abroad programs, and internships are available to enrich the regular program. Students receive special assistance in finding positions after graduation.

Study Abroad, Internships, and Co-op Programs
International studies majors are strongly encouraged to undertake a program of study abroad and to participate in appropriate internships or co-op programs. The Institute will assist its majors in integrating a study abroad program into their curriculum with the goal of enhancing both their Bradley and their foreign study experiences. Further information on foreign study (including eligibility requirements) can be obtained from the Study Abroad Office. Internships and co-op assignments are available through the College Cooperative Education/Internships Program listed elsewhere in this catalog. A Department of State internship is available directly through the Institute (see IS 498). Credit may also be earned for special, individual projects or travel abroad (see IS 490).

Requirements
All students who are candidates for the Bachelor of Arts degree in the field of international studies should plan their program with the aid of their advisor in accordance with the following requirements:

A total of 132 semester hours of acceptable undergraduate work, a minimum of 48 hours of which must be in junior-senior level courses.

General Education

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
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<tbody>
<tr>
<td>English Composition</td>
<td>6</td>
</tr>
<tr>
<td>Mathematics</td>
<td>3</td>
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<tr>
<td>Speech</td>
<td>3</td>
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<tr>
<td>Western Civilization</td>
<td>3</td>
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<tr>
<td>Literary Analysis</td>
<td>3</td>
</tr>
<tr>
<td>Fine Arts</td>
<td>3</td>
</tr>
<tr>
<td>Science and Technology</td>
<td>6</td>
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International Studies

<table>
<thead>
<tr>
<th>Course</th>
<th>Hours</th>
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<tbody>
<tr>
<td>IS 103, 104, 182, 250, 255, 275, 495, and any other seven IS courses.</td>
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Foreign Language

French, German, Spanish: 6 semesters (where available) or the equivalent, with two courses at the 300 level.

Those students who have previously studied a foreign language must take the placement test given by the Department of Foreign Languages. Students who place at the 300 level should consult with the Director of Foreign Languages to determine the best sequence of courses for them. These students will have the opportunity to take a total of 9 of the required hours in specially designed courses such as Commercial Language, Introduction to Translation, Civilization and Culture, Spanish Interpretation, Everyday and Idiomatic French, and so on.

Courses in American government (PLS 105), principles of economics (ECO 221 & 222), and statistics (MTH 111, PSY 205, QM 262 or PLS 209).

Area studies courses are encouraged for students interested in a certain region and may be developed into a special concentration by taking appropriate language, history, literature, art, or other courses related to the region. Minor concentrations may also be developed by students interested in fields such as business, government or a foreign language.

Students also may take an area studies minor (listed elsewhere in this catalog).

In all cases students’ programs will be especially designed to help prepare them for meeting their personal career goals.

Baccalaureate Articulation

Associate in Arts or Associate in Science Graduates

A transferring student who has completed an Associate in Arts or an Associate in Science degree in an Illinois public
community college may expect to earn a baccalaureate degree from the Institute of International Studies upon the completion of two additional years of course work provided that the following qualifications are met:

1. that the transferring student does not change his or her intended major or area of specialization;
2. that the course work represented in the associate degree include only baccalaureate-oriented college level courses which appear in the ICCB master course file;
3. that within the associate degree, the transferring student shall have completed work in each of the following general education areas totaling a minimum of at least 36 semester hours:
   a. English and/or communications
   b. Humanities
   c. Mathematics and/or natural sciences
   d. Social sciences
   e. Foreign language.

Course Descriptions

IS 100 Contemporary World Forces 3 hrs. (Gen. Ed. SF)
Great international forces influencing the contemporary world: secular and religious nationalism, global terrorism, international conflict and cooperation, poverty, and climatic changes. Understanding and evaluating the impact of these forces on national society and world affairs.

IS 101 Participation in Model United Nations 1 hr. Preparation for and participation in a model United Nations program. May be repeated for a maximum of 4 hours credit provided a different country and issues are addressed with each participation.

IS 103, 104 Introduction to International Studies 3 hrs. each
International relations; macro and micro levels of analysis.

IS 182 Fundamentals of Contemporary Asian Civilization 3 hrs. (Gen. Ed. NW)
Civilization and traditional cultures of Asia; origins of fundamental values in indigenous Asian ways of life.

IS 250 Theory and Practice of World Politics 3 hrs. (Gen. Ed. HP)
Major classical or normative theories of international relations; development of student’s own “relevant utopia.”

IS 255 Ideologies in International Affairs 3 hrs.
Development of recent belief systems and practices; basis of conflict with democratic principles.

IS 260 Fundamentals of Contemporary Islamic Civilization 3 hrs. (Gen. Ed. NW)
Origins and fundamental characteristics of Muslim civilization. Impact of Islam on contemporary Muslim world.

IS 275 Problems of the Developing World 3 hrs. (Gen. Ed. SF)
Survey of political, economic, social, and cultural aspects of development. Theories of development, relations between industrial and developing nations, impact of domestic structures and conditions, globalization, and international institutions on the developing world.

IS 285 East Asia in the Modern World 3 hrs.
Survey of political, economic, social, and cultural aspects of developments in China, Japan, Korea, and East Asia. Emphasis on impact of tradition, colonization, and the Cold War on political, economic, and social development.

IS 301 Ethnicity in the International System 3 hrs.
Impact of non-state national actors on the international system; diplomatic intercourse between states that results from such interactions; implications for the developing world. Prerequisites: IS 275 or consent of instructor.

IS 305 Diplomacy in International Affairs 3 hrs.
Evolution of modern diplomacy, fundamentals of diplomacy theory, and contemporary use of diplomacy. Negotiation game for application of student’s new knowledge of diplomatic practice. Prerequisite: IS 103 or 104 or consent of instructor.

IS 306 Intelligence in International Affairs 3 hrs. (Gen. Ed. SF)
Development of secret intelligence practice; contemporary operations of selected intelligence organizations. Emphasis on US capabilities, counterterrorism, management and control, and tension between secrecy and democracy.

IS 312 U.S. Foreign Policy 3 hrs. (Gen. Ed. SF)
Mechanics and conduct of modern U.S. foreign policy-making. Cross listed as HIS 312.

IS 318 United States-East Asia Relations 3 hrs.
Critical studies of US relations with China, Japan, Korea, and other selected countries of East Asia since World War II.

IS 322 Latin America in the International System 3 hrs.
Critical analysis of the role of Latin America in world affairs and the impact of external forces on politics, society, and interstate relations. Topics include: colonialism, revolutionary change and regional stability, transition to democratic rule, impact of foreign intervention, and role of Latin America in the global political economy. Prerequisites: IS 275 or consent of instructor.

IS 323 Problems in Latin American Development 3 hrs.
Examination of political and economic development in Latin America, including the impact of history, culture, and society on politics. Study of Latin American development with reference to theories of development, modernization, and nation-building. Prerequisites: IS 275 or consent of instructor.
IS 330 European Nations in International Affairs: Cooperation and the European Union 3 hrs.
Current inter-European relations and regional organizations; emphasis on significance in contemporary world affairs.

IS 331 European Nations in International Affairs: Conflict and European Security 3 hrs.
Current inter-European relations and regional organizations; emphasis on significance in contemporary world affairs.

IS 340 Africa in the International System 3 hrs.
(Gen. Ed. NW)
Efforts of African states to develop their societies and reclaim their heritage: premises and assumptions of African social systems; past culture and culture in the making; domestic politics and foreign relations.

IS 353 Russian Foreign Policy 3 hrs.
Evolution of major elements of Russian foreign policy, impact of communist past, current post-communist attitudes and policies toward the world, analysis of foreign policies of other post-Soviet Slavic states.

IS 355 Imperial Russia 3 hrs.
(Gen. Ed. NW)
Overview of early Russian development: major socio-political and economic aspects of the Czarist period. Emphasis on imperialist expansionism from the 16th century to the Bolshevik Revolution.

IS 359 Russo-Chinese Relations 3 hrs.
Review of Russian-Chinese relations from imperial times to the present; review of past conflicts and their impact on world affairs.

IS 363 Middle East Nations in International Affairs 3 hrs.
Introduction to the modern politics of the Middle East. Examination of Arab-Israeli conflict, politics of OPEC, inter-Arab rivalries, terrorism, and the impact of these issues on the role of the Middle East in international affairs. Impact of the end of the Cold War and the Gulf Wars.

IS 373 South and Southeast Asian Nations in International Affairs 3 hrs.
International relations of the south Asian subcontinent and Southeast Asia. Legacy of colonization, religious conflict, territorial disputes, and the nuclear threat. Also the regional political economy and terrorism.

IS 381 East Asian International Relations 3 hrs.
East Asian international relations (China, Japan, Korea, and East Asia in general) from ancient times to the present.

IS 385 Issues of Contemporary Asia 3 hrs.
Critical studies of new issues and problems in contemporary Asia: tensions between traditional Asian cultures and modern Western ideologies, Asian leadership styles, political institutions, and economic development.

IS 410 Globalization in World Affairs 3 hrs.
Present trends in globalization; challenges presented to nation-states in an increasingly complex international environment where traditional means of statecraft are of declining relevance.

IS 415 Transnational Forces in World Affairs 3 hrs.
Role of nongovernmental actors in international relations; impact on traditional nation-states. Transnational parties, multi-national corporations, terrorist groups, religious groups, and elite networks.

IS 431 East European Systems 3 hrs.
Advanced readings to facilitate seminar-style discussion of selected problems facing Eastern Europe. Possible topics: political and economic reform, coping with the legacy of socialist rule, foreign policy, and regional relations. Prerequisite: consent of instructor.

IS 440 Problems in Southern African Development 3 hrs.
Selected problems in African development and international relations: nationalism, ideology, foreign policies and relations, international institutions, multinational corporations, liberation movements, ethnicity, national integration, and urbanization. Prerequisite: IS 340 or consent of instructor.

IS 475 Contemporary Issues in International Studies 1-3 hrs.
In-depth study of selected problems in world affairs. May be repeated for a maximum of 6 hrs. credit provided a different topic is taken each term.

IS 490 Directed Study and Travel Abroad: (selected region) 3 hrs.
Provides academic credit to students participating in designated, short-term programs abroad. Student must participate in the designated travel program in order to receive credit for this course. Course may be repeated once providing the student participates in a different travel program.

IS 495 Advanced Seminar in International Studies 3 hrs.
Relationship of empirical theory to the practice of international studies; completion of a baccalaureate thesis. Prerequisites: IS 255; junior or senior standing in international studies.

IS 498 Department of State Internship 1-12 hrs.
For majors planning careers in the foreign service: 3 months of work-study at the junior officer level in the Department of State or in a United States embassy. Qualified students should contact the IS director six months in advance to allow for clearance and acceptance. Prerequisites: senior standing; approval of IS director.

IS 499 Research in International Relations 1-3 hrs.
Special projects in IS for qualified students.
Latin American Studies

Faculty Coordinating Committee
Cisneros (Foreign Languages-Spanish) Director, Dannehl (Political Science), Felder (Economics), Tarzi (International Studies).

The Latin American Studies minor has as its goal to introduce students to the broad spectrum of political, social, economic, and cultural forces which have shaped this region in the past and continue to influence it today. This minor is designed to be interdisciplinary in nature and does not seek to encourage concentration in a single discipline or a single country. It may, however, prepare the student for such an endeavor in future studies.

A key requirement for this minor is the completion of a summer or semester abroad program in Latin America. The purpose of this requirement is to enhance the student’s understanding and appreciation of Latin American culture and society.

Minor in Latin American Studies
Curriculum and Requirements
A minimum of 18 semester hours is required for this minor, at least 6 hours of which must be completed in an approved study abroad program.

Students must complete FLS 202 or the equivalent. This language requirement must be fulfilled before the study abroad experience. No FLS 100 or 200-level courses may be used to satisfy the 18 semester hours required for this minor.

The course work completed in residence at Bradley must include 9 hours of required coursework in foreign languages—Spanish and history. At least one of these courses must be completed at Bradley prior to study abroad. Students must also complete 3 hours of elective courses. A grade point average of at least 2.0 is required for course taken for the minor.

In order to ensure that student coursework deals with the history, economics, language, and culture of Latin America, students must have their Latin American Studies program (Bradley and study abroad courses) approved by an advisor from the minor’s faculty coordinating committee. The study abroad portion of the requirement must be taken at a Bradley-approved site in Latin America. Such coursework can be taken in Spanish or English.

Required Courses (9 hrs)
HIS 105 Non-Western Civilization: Latin America
FLS 322 Latin America Civilization and Culture
HIS 332 Modern Latin American History or HIS 335 Modern Mexico

Elective Courses (3 hrs)
ECO 351 Economic Development
FLS 316 Topics in Hispanic Language and Literature
FLS 342 Survey of Hispanic-American Literature I
FLS 343 Survey of Hispanic American Literature II
FLS 490 Topics in Hispanic Language or Literature
FLS 492 Practicum in Spanish
FLS 495 Independent Study

Study Abroad Courses (6 hrs)
Department of Mathematics

FACULTY Professors Jungck, McAsey (chair), Mou, Szeto, Timm; Associate Professors Bedenikovic, Delgado, Kasube, Nanyes, Quigg, Xue; Assistant Professors Lang, Troutman, Karthikeyan; Lecturer Sterling.

A student considering mathematics as a career should realize that emphasis in mathematics courses will change as the individual progresses through an academic program. The initial concern for solving problems is later dominated by the more important objectives of formulating problems in mathematical language and dealing with mathematical structures and abstract ideas. It should be stressed that an effective mathematician should be a well-educated person, possessing not only the technical background of mathematics but also a selection of courses from other disciplines.

Mathematics Major
All students majoring in mathematics must meet the following departmental requirements:

1. The mathematics core curriculum
   MTH 121, 122, 223 Calculus I, II, III
   MTH 207 Elementary Linear Algebra with Applications
   MTH 420 Introduction to Analysis
   MTH 325 Probability and Statistics I
   MTH 404 Modern Algebra I
   MTH 494, 495 Senior Project I, II
   CS 106 Programming

2. At least two of the following sequences:
   MTH 420 and 421 or 403; MTH 325 and 326; MTH 404 and 405; MTH 501 and 502; MTH 510 and 511.
   Other sequences may be approved by the department; however, any two sequences must include four distinct courses.

3. At least 24 semester hours of mathematics courses numbered 301 or above. Upper level core and sequence courses are counted as part of this requirement.

   Unless the requirements of a course have been met through some other means such as testing or transfer credit, all entering mathematics majors are advised to begin their academic program with the following course of study.

   Freshman Year
   MTH 121, 122 Calculus I, II.........................................................8
   CS 106 Programming.................................................................3
   ENG 101 English Composition...................................................3
   COM 103 Oral Communication Process...................................3
   Electives......................................................................................15
   ______________________________________________________________________32

   The Department of Mathematics recognizes that students majoring in mathematics will have diverse career interests and goals. In fact, flexibility is one of the desirable attributes of a major in mathematics. With proper selection of elective courses, programs may be designed for students who wish to specialize in mathematics, teach at the high school level, or for students with career interests in the application of mathematics to, for example, actuarial science, business, computer science, economics or the physical sciences. By selecting appropriate courses, mathematics majors will often complete a minor in one of these applied areas. Some suggestions are as follows:

Mathematics
Students considering further study of mathematics at the graduate level should elect courses such as:
   MTH 307 Linear Algebra
   MTH 345 Differential Equations
   MTH 403 Complex Variables
   MTH 405 Modern Algebra II
   MTH 406 Elementary Topology
   MTH 421 Advanced Calculus

   In addition, a year of physics (PHY 110 and 201), MTH 120, and a foreign language may prove beneficial.

Mathematics - Secondary Education
Students wishing to be certified to teach mathematics at the secondary level in Illinois enroll in the Bradley University Mathematics Department MTHT major program. The mathematics requirements for this degree program consist of a core of required classes, the fulfillment of a breadth requirement, and a depth requirement. In addition, to be certified to teach mathematics at the secondary level in the state of Illinois one must complete the requirements for a secondary teaching certificate. These requirements are listed under the Department of Teacher Education (Secondary Programs) and include a minimum of 35 hours in education courses.
1. The mathematics core curriculum for the MTHT program is:
   MTH 121 Calculus with Analytic Geometry I
   MTH 122 Calculus with Analytic Geometry II
   MTH 223 Calculus with Analytic Geometry III
   MTH 207 Linear Algebra
   MTH 325 Probability and Statistics I
   MTH 404 Abstract Algebra I
   MTH 420 Real Analysis I
   CS 106 Intro. to Programming & Computer Science

2. The depth requirement can be fulfilled by completing two sequences from among the following five sequences:
   MTH 325-326, MTH 404-405, MTH 420, MTH 421 or MTH 423, MTH 501-502, MTH 510-511.

3. The breadth requirement can be fulfilled by completing a total of 24 semester hours in courses numbered 301 and above. Upper-level mathematics in the core curriculum and sequence course are counted in this total.

4. The state currently requires that students be introduced to various topics in order to meet certification requirements. Most of the mathematical topics required for certification are covered in the core curriculum described in number 1 above. Currently, there are additional certification requirements in graph theory, geometry, and history of mathematics. State certification requirements change frequently. It is the student’s responsibility to see that the current state certification requirements are satisfied.

**Actuarial Science – Mathematics Major**

The actuarial field is one of the oldest applications of mathematics and deals with insurance, annuity, and pension plans of all kinds.

An actuarial science-mathematics major is
1. Required to take the following courses:
   MTH 121, 122, 223 Calculus I, II, III .................. 12
   MTH 207 Elementary Linear Algebra .................. 3
   MTH 325, 326 Probability and Statistics I, II ........ 6
   MTH 335 Topics in Actuarial Science (two different topics) .................................................. 6
   MTH 427 Applied Statistical Methods .................. 3
   Elective mathematics courses (see note 2) .............. 6
   CS 106 Programming ...................................... 3
   ATG 157 Accounting Principles I .......................... 3
   ECO 221, 222 Microeconomics, Macroeconomics ....... 6
   IME 313 Operations Research I .......................... 3
   IME 314 Operations Research II .......................... 3
   RMI 315 Principles of Risk Management ............... 3
   FIN 322 Business Finance ............................... 3

2. Required to take at least two additional three-hour courses from courses numbered MTH 301 or above other than MTH 325, MTH 326, MTH 335 and MTH 427.

3. For an AS-M major a maximum of 25 percent of the total undergraduate program credit hours including required courses may consist of courses from the Foster College of Business Administration. For example, in a 124-credit-hour program a maximum of 31 credit hours of business courses may be taken.

Although no additional business courses are required, students wishing to take business courses in addition to those required courses listed above should consider choosing from among the following, subject to the restriction noted above: BUS 100, BUS 210, BUS 300, IB 306, ATG 158, MTG 315, BUS 342, BMA 352, BMA 372, BMA 452, ECO 301, FIN 325, FIN 425, any RMI course.

**Mathematics Minor**

A mathematics minor requires 24 semester hours in mathematics as follows:
1. MTH 121, 122, 223 Calculus I, II, III; and
2. 12 semester hours in mathematics courses numbered 301 or above; or either MTH 207 or MTH 224 and 9 semester hours in mathematics courses numbered 301 or above.

**Advanced Placement in Mathematics**

Students scoring a 5, 4 or 3 on the Advanced Placement (AP) program mathematics examination administered by the College Entrance Examination Board may receive up to eight semester hours of credit for MTH 121 and MTH 122 Calculus I and II.

**Course Descriptions**

**NOTE:** Not more than 10 semester hours of credit may be earned from the following courses: MTH 101, 105, 109, 110, and 111. Credit will not be given for MTH 101, 105, or 109 to students with credit for MTH 112 or 115. Credit will not be given for MTH 101, 105, 109, 110, 112, or 115 to students with credit for MTH 119 or MTH 121. Credit will not be given for both MTH 116 and MTH 122. Students majoring in departments of the colleges of business administration and engineering and technology are advised to check college requirements for additional restrictions and limitations.

**MTH 101 Basic College Mathematics 3 hrs.**

(General Ed. MA)

Development of basic mathematical skills. Problem solving and contemporary applications. Prerequisite: 3 semesters of high school algebra.
MTH 105 Finite Mathematics 3 hrs.
Topics from finite mathematics: sets, matrices, systems of linear equations, linear programming, elementary probability, multistage processes, and Markov chains. Prerequisite: 3 semesters of high school algebra, or equivalent.

MTH 109 College Algebra 3 hrs.
For students who need to strengthen their algebra skills: factoring polynomials; solving quadratic and other equations; exponents, logarithms, and graphing. Prerequisites: 3 semesters of high school algebra, and qualifying score on algebra placement exam.

MTH 111 Elementary Statistics 3 hrs. (Gen. Ed. MA)
Probability, descriptive statistics, statistical models, correlation and regression, testing hypotheses, confidence limits, and selected applications. Prerequisite: 3 semesters of high school algebra, or equivalent.

MTH 112 Precalculus 4 hrs.
For students needing further background in mathematics before enrolling in calculus (especially MTH 121). Thorough study of algebraic, transcendental, and trigonometric functions; emphasis on graphing and use of algebra. Prerequisites: 3 years of high school math including 3 semesters of high school algebra; appropriate entrance and/or math precalculus placement scores.

MTH 115 Brief Calculus with Applications I 4 hrs. (Gen. Ed. MA)
Differential and integral calculus with emphasis on understanding through graphs. Topics in analytic geometry, limits, derivatives, antiderivatives, definite integrals, exponential and logarithmic functions, and partial derivatives. Prerequisite: grade of C or better in MTH 109 or 112; or qualifying score on math placement exam.

MTH 116 Brief Calculus with Applications II 3 hrs. (Gen. Ed. MA)
Continuation of MTH 115. Includes trig functions, integration techniques, series, differential equations, and multivariable calculus. Prerequisites: C or better in MTH 115.

MTH 118 Calculus with Review A 4 hrs.
Topics in analytic geometry, limits, continuity, derivative, and pertinent algebra review. Prerequisites: qualifying entrance and/or placement scores.

MTH 119 Calculus with Review B 4 hrs. (Gen. Ed. MA)
Continuation of MTH 118. Topics in analytic geometry, definite integral, Fundamental Theorem of Calculus, and pertinent algebra review. Prerequisite: grade of C or better in MTH 118.

MTH 120 Discrete Mathematics 3 hrs.
Introduction to graph theory, Boolean algebra, mathematical induction, and elementary combinatorics. Prerequisites: qualifying entrance and/or math precalculus placement scores as for MTH 121; or grade of C or better in MTH 112.

MTH 121 Calculus I 4 hrs. (Gen. Ed. MA)
Topics in analytic geometry; limits; continuity; differentiation; introduction to integration; applications. Prerequisites: qualifying entrance and/or math precalculus placement scores; or grade of C or better in MTH 112.

MTH 122 Calculus II 4 hrs. (Gen. Ed. MA)
Topics in calculus of logarithmic, exponential, and trigonometric functions; techniques of integration; analytic geometry; indeterminate forms; improper integrals; infinite series. Prerequisite: grade of C or better in MTH 119 or MTH 121 or its equivalent.

MTH 190 Topics in Mathematics for Middle School Teachers 3 hrs.
Topics for middle school math teachers: analytic geometry, problem solving, topics in calculus. For elementary education majors only. May be repeated under different topics for a maximum of 6 hours credit. Prerequisite: consent of instructor.

MTH 202 Introduction to Numerical Methods 3 hrs.
Introductory treatment of numerical methods used in the solution of scientific and engineering problems: approximations, interpolation, root finding, numerical integration, linear algebraic systems, first-order differential equations. Numerical and mathematical software will implement algorithms. Prerequisite: MTH 122.

MTH 207 Elementary Linear Algebra with Applications 3 hrs.
Matrix algebra, determinants, theory of simultaneous equations, vector spaces, bases, Gram-Schmidt orthogonalization, eigenvalues, eigenvectors, transformations, and applications. Prerequisite: MTH 122, or consent of instructor.

MTH 223 Calculus III 4 hrs. (Gen. Ed. MA)
Topics in vectors; calculus of functions of several variables; multiple integrals; vector calculus. Prerequisite: grade of C or better in MTH 122.

MTH 224 Elementary Differential Equations 4 hrs.
Solution of second order equations with constant coefficients; matrix algebra applied to the solution of first order systems; Laplace transforms; power series methods; numerical methods; modeling; applications. Prerequisite: MTH 223.
MTH 300 Topics for Middle School Math Teachers 3 hrs.
Topics of special interest which may vary each time course is offered, rotating among geometry, algebra/number theory, and history of mathematics. Topic stated in current Schedule of Classes. For middle school teacher certification; does not count for math majors or math minors. May be repeated under different topics for a maximum of 9 hours credit. Prerequisites: C or better in ETE 115 and ETE 225; C or better in calculus, computer programming, or statistics (MTH 111); or consent of instructor.

MTH 301 Combinatorics 3 hrs.
Combinatorial analysis, recurrence relations, generating functions, and finite-state machines. Prerequisites: MTH 120, 122; or MTH 223.

MTH 302 Introduction to Graph Theory 3 hrs.
Theory and applications of graphs. Fundamental properties of graphs, circuits, cycles, trees, and graph algorithms; planarity and coloring. Prerequisites: MTH 120, 122; or MTH 223.

MTH 305 Modern Geometry 3 hrs.
Modern geometry; methods similar to those used in plane geometry. Prerequisite: MTH 223.

MTH 307 Linear Algebra 3 hrs.
Vector spaces, linear transformations, inner product spaces, Jordan canonical forms, spectral theorems, and selected topics. Prerequisite: MTH 207.

MTH 310 Introduction to Number Theory 3 hrs.
Historical development of number theory; primes and their distribution; divisibility; unique factorization of integers; congruences; Diophantine equations; number theoretic functions. Prerequisite: MTH 223.

MTH 325, 326 Probability & Statistics I, II 3 hrs. each
Probability and statistical concepts, theory, and applications: random variables, sampling, central limit theorem, theories of estimation and the testing of hypotheses, linear models, and nonparametric methods. Prerequisite: MTH 223; MTH 325 required for MTH 326.

MTH 335 Topics in Actuarial Science 3 hrs.
Preparation for Actuarial Exams 140, 150. Topics may vary each time course is offered, rotating among compound interest, mathematics of life contingencies, and actuarial mathematics. Topic stated in current Schedule of Classes. May be repeated under different topics for a maximum of 9 hours credit. Prerequisites: MTH 207, MTH 223; consent of instructor.

MTH 345 Differential Equations 3 hrs.
Existence and uniqueness theorems; solution methods for initial and boundary value problems; linear and nonlinear systems; stability theory; difference equations. Prerequisites: MTH 207, 223; or consent of instructor.

MTH 370 Mathematics Seminar 1 hr.
Seminar course introducing various mathematical topics. Prerequisite: junior or senior standing; mathematics major or minor or consent of Department Chair.

MTH 371 History of Mathematics 3 hrs.
A survey of the historical development of mathematics from antiquity to the twentieth century. Emphasis will be on the interrelations between the various areas of mathematics as well as the mathematical content itself. Prerequisites: MTH 207 and 3 semester hours from courses numbered MTH 301 or above; or consent of instructor.

MTH 390 Mathematical Modeling 3 hrs.
Introduction to constructing and evaluating mathematical models for describing and analyzing real world phenomena. Continuous and/or discrete models. Prerequisite: MTH 223; consent of instructor.

MTH 403 Complex Variables I 3 hrs.
Introduction to complex calculus: elementary functions, integration, Cauchy's formula, residue theory, and applications. Prerequisites: MTH 207, 223; or MTH 224.

MTH 404 Modern Algebra I 3 hrs.
Basic theory of sets, integers, and mappings; elementary properties of groups, rings, and fields. Prerequisite: MTH 207, 223.

MTH 405 Modern Algebra II 3 hrs.
Topics selected from theory of rings, field theory, and applications. Prerequisite: MTH 404.

MTH 406 Elementary Topology 3 hrs.
Introduction to rudiments of point set topology. Concepts of compactness, connectedness, and continuity, in context of general topological spaces and metric spaces. Prerequisite: MTH 420, or consent of instructor.

MTH 420 Introduction to Analysis 3 hrs.
Real number system and functions of real variables: sequences, limits, continuity, differentiation, series, uniform convergence, and the Riemann-Stieltjes integral. Prerequisite: MTH 207, 223.

MTH 421 Advanced Calculus 3 hrs.
Functions of several variables. Calculus of transformations, implicit and inverse function theorems, line and surface integrals, Fourier analysis, fixed point theorems, and applications. Prerequisite: MTH 420 or consent of instructor.

MTH 427 Applied Statistical Methods 3 hrs.
Regression analysis, time series analysis, and forecasting Prerequisites: MTH 326 or consent of instructor.
MTH 490  Topics in Mathematics  3 hrs.
Topics of special interest which may vary each time course is offered. Topic stated in current Schedule of Classes. Prerequisite: consent of instructor.

MTH 491  Directed Individual Studies in Mathematics  1-16 hrs.
Individual work in special areas of mathematics for advanced, qualified undergraduate students. May register for more than 6 hrs. credit only if enrolled in an approved special off campus program. Prerequisite: consent of Department Chair.

MTH 494  Senior Project in Mathematics I  0 hrs.
Topics in mathematics selected, studied, and discussed by students under faculty guidance. Each student explores an area of mathematics and selects a topic in which he or she has a particular interest. Prerequisite: Senior standing (junior standing with consent of instructor).

MTH 495  Senior Project in Mathematics II  3 hrs.
A selected topic in mathematics is studied by a student under faculty guidance. Each student writes a paper and gives a presentation on his or her topic. Prerequisite: MTH 494; senior standing.

MTH 501  Topics in Applied Mathematics I  3 hrs.
Theory, applications, and algorithms for basic problems of modern applied mathematics. Symmetric linear systems, minimum principles, equilibrium equations, calculus of variations, orthogonal expansions, and complex variables. Prerequisites: MTH 224 or 345.

MTH 502  Topics in Applied Mathematics II  3 hrs.
Continuation of MTH 501. Selected numerical algorithms: Fast Fourier transform, initial value problems, stability, z-transforms, and linear programming. Prerequisite: MTH 501 or consent of instructor.

MTH 510  Numerical Methods I  3 hrs.
Introduction to numerical and computational aspects of various mathematical topics: finite precision, solutions of non-linear equations, interpolation, approximation, linear systems of equations, and integration. Cross listed as CS 510. Prerequisite: CS 106; MTH 207 and 223.

MTH 511  Numerical Methods II  3 hrs.
Continuation of CS/MTH 510: further techniques of integration, ordinary differential equations, numerical linear algebra, nonlinear systems of equations, boundary value problems, and optimization. Cross listed as CS 511. Prerequisites: MTH 224 or 345; CS/MTH 510.

MTH 514  Partial Differential Equations  3 hrs.
Fourier series and applications to solutions of partial differential equations. Separation of variables, eigenfunction expansions, Bessel functions, Green’s functions, Fourier and Laplace transforms. Prerequisite: MTH 224 or 345.
Medical Technology Program

FACULTY COORDINATING COMMITTEE  Cady (Biology), Fan (Biology), Fry (Chemistry), Kell (Chemistry, chair).

ADJUNCT FACULTY  Adjunct Professors Hayes, Rubnitz; Affiliate Instructors Anderson, Becker, Roncancio-Weemer, Wray.

The interdepartmental major in medical technology is jointly sponsored by the departments of biology and chemistry. The objective of the program is to provide the student with the appropriate background for admission to an accredited medical technology hospital program. This is a 3 + 1 program in which the student normally spends the first three years completing University course work necessary to fulfill general requirements for a bachelor’s degree and a fourth year which is a clinical year spent in an affiliated hospital medical technology program. Upon successful completion of the required University course work, the student may apply to any of the affiliated and accredited hospitals offering a medical technology program. After successful completion of a hospital medical technology program, the student will be granted a bachelor’s degree from Bradley. Students electing this major will be assigned an advisor in either the Department of Biology or the Department of Chemistry.

Students may also apply to any accredited medical technology hospital program if they have a baccalaureate degree in a 4 + 1 program. The degree obtained by most of these students is in biology or the liberal arts and sciences individualized major program.

Upon successful completion of the hospital clinical program and receipt of the baccalaureate degree, graduates are eligible to sit for the national certification exams in medical technology.

Descriptions of courses required for the degree in medical technology are listed under regular departmental offerings.

Clinical Year
The clinical year will include the following courses taken at an affiliated hospital medical technology program. The student registers at Bradley for OCP 388. A one-time fee of $100 is charged for OCP 388.

Clinical Chemistry I  4-6 hrs.
Theory and practice of analytical biochemistry as applied to pathologic states, methodology, and instrumentation. Statistics as applied to reagent preparation, result determination, and quality control.

Clinical Chemistry II  2-4 hrs.
Theory and practice of analytical biochemistry as applied to specialized tests for drugs, endocrine function, and urine and body fluid analysis.

Clinical Hematology  5 hrs.
Study of the origin, development, morphology, physiology, and pathophysiology of the formed elements of the blood and bone marrow. Manual and automated methods of cell counting, differentiation, and other special hematological procedures on blood and body fluids used in disease diagnosis are included.

Clinical Hemostasis  1 hr.
Study of the platelet, vascular, coagulation, and fibrinolytic systems. Testing procedures and the application of the principles of hemostasis as related to disease states and therapeutic monitoring are also included.

Clinical Immunohematology  4 hrs.
Study of red cell antigen-antibody systems, antibody screening and identification, compatibility testing, and immunopathologic conditions. Also included are donor requirements and blood component preparation and therapy.

Clinical Immunology  3 hrs.
Study of the principles of the protective and adusive aspects of the cellular and humoral immune responses. Theory and performance of test procedures based on antigen-antibody reactions and clinical significance of test results are included.

Clinical Microbiology I  4-6 hrs.
Theory and practice of the isolation and identification of pathogenic bacteria and mycobacteria in clinical specimens through cultures, morphology, biochemical, and/or serological reactions and their drug susceptibility. The relation of clinical testing to disease states in also included.
Clinical Microbiology II 2-4 hrs.
Theory and practice of the isolation and identification of fungi, parasites, rickettsia, and viruses utilizing morphological, cultural, biochemical, and serologic methods. The relation of clinical testing to disease states and epidemiology as it applied to microbiology is also included.

Special Topics in Clinical Laboratory Science 1 hr.
An overview of medical ethics, patient approach, the theory and practice of phlebotomy techniques, laboratory safety, applications of laboratory computer systems, and independent clinical research and development.

Clinical Management and Education 1 hr.
A basic introduction to the principles and theory of management and education as related to the clinical laboratory. The special job responsibilities of the clinical laboratory scientist in management and education are addressed.

Requirements
1. Satisfy University and LAS general education requirements and successfully complete required course work prior to admission to a hospital medical technology program.
2. Receive credit for a minimum of 40 junior-senior hours, 18 of which must be from the College of Liberal Arts and Sciences. Sixteen junior-senior hours will be granted upon successful completion of a hospital medical technology program.
3. Successful completion of a medical technology program in National Accrediting Agency for Clinical Laboratory Science (NAACLS). Approval of the coordinating committee is required for attendance at an accredited non-affiliated hospital.

Students desiring a major in medical technology will be required to complete 39 hours of science courses distributed as follows: 24 hours of biology (if BIO/CHM 141 is taken as a biology course), 16 hours of laboratory chemistry and 3 hours of college mathematics. These requirements may be met by taking the following courses:

**First Semester**
- BIO 123 Principles of Biology I ...................... 4
- CHM 116, 117 General Chemistry I (5) .......................... 8
- CHM 141 Introduction to Medical Technology .............. 1
- CHM 151 Fundamentals of Organic Chemistry .............. 2
- CHM 152 Fundamentals of Biochemistry ............... 2
- CHM 153 Organic-Biochemistry Laboratory .............. 1
- BIO 203 Human Anatomy and Physiology .......................... 3
- BIO 205 Pathophysiology or BIO 361 Microanatomy ........... 3-4
- Speech Communication .............................................. 3
- Total (minimum) ................................................. 24-25

**Second Semester**
- BIO 124 Principles of Biology II .............................. 4
- CHM 116, 117 General Chemistry II (5) .......................... 8
- CHM 141 Introduction to Medical Technology .............. 1
- CHM 153 Organic-Biochemistry Laboratory .............. 1
- COM 103 The Oral Communication Process .................. 3
- ENG 101 English Composition or MTH 111 Elementary Statistics .... 3
- General Education Elective .............................................. 3
- Total (minimum) ................................................. 24-25

The hours required for a major in Medical Technology are distributed as follows:
- From Medical Technology Program (OCP 388) .................. 32
- Biology ............................................................ 24-25
- Chemistry ....................................................... 16
- College Mathematics .............................................. 3
- English ............................................................. 6
- Speech Communication ............................................ 3
- General Education Electives and other Electives .......... 38-39
- Total (minimum) ................................................. 124

* If BIO/CHM 141 is taken as a biology course.
Department of Philosophy and Religious Studies

Philosophy Program

PHILOSOPHY FACULTY Associate Professor Kelley; Assistant Professors Greene, Niculescu.

The philosophy program offers courses designed to serve a variety of academic needs by providing a confrontation with the principal thinkers and the fundamental issues that have shaped humankind's intellectual heritage, by providing a philosophical perspective of several other fields, and by providing – as preparation for graduate study – a solid grounding in the chief figures, methods, division, and problems of philosophy. Regardless of the students' vocational interests, academic major program, or plans for graduate work, the program seeks to stimulate their intellectual involvement in the continuing re-exploration of basic and meaningful questions. The program emphasizes that the student demonstrate, in philosophy courses, the ability to communicate effectively and acceptably in both written and oral English.

Major

To major in philosophy a student must:
1. complete not less than 24 semester hours in philosophy, including not less than 20 hours in courses numbered 200 or above;
2. have a grade point average exceeding 2.0 in all philosophy courses numbered 200 or above; and
3. select a member of the philosophy faculty as an academic advisor in order to plan the choice and sequence of philosophy courses, and obtain approval of this plan by the philosophy faculty; and
4. complete the all-University course requirements and the College of Liberal Arts and Sciences course requirements.

Philosophy majors may earn either a B.S. or B.A. degree. Philosophy majors intending to pursue a graduate degree in philosophy, however, are urged to fulfill the B.A. requirements.

The philosophy program provides individualized curricula for students majoring in philosophy. Besides preparation for teaching on the college level, a major in philosophy serves as an excellent pre-law curriculum. In addition, students majoring in economics, the political and social sciences, arts and humanities, history, communications, psychology, and business will find a second major in philosophy eminently beneficial in their own fields of academic emphasis.

Minor

To minor in philosophy a student must:
1. complete not less than 15 semester hours in philosophy;
2. have a minimum grade point average of 2.0 in all philosophy courses;
3. select a member of the philosophy faculty as an academic advisor in order to plan a coherent structured course of study developed according to the needs and interests of the student.

Course Descriptions

PHL 102 Logic 3 hrs.
Develops skills in analysis and evaluation of reasoning in everyday situations; improves insights into argument construction and exact methods of proof.

PHL 103 An Inquiry Into Values 3 hrs. (Gen. Ed. HP)
Major value issues addressed by the world's most influential philosophers.

PHL 201 Philosophy Proseminar I 3 hrs.
An overview of the history of philosophy from Thales to William of Ockham. An introduction to doing philosophical research and writing. Prerequisite: Philosophy major or minor; or permission of the instructor.

PHL 202 Philosophy Proseminar II 3 hrs.
An overview of the history of philosophy from Francis Bacon to recent thought. A workshop for cultivating philosophical writing and research skills. Prerequisites: Philosophy majors or minors or consent of instructor.

PHL 300 Ancient and Medieval Philosophy 3 hrs.
Development of ideas having a significant influence on Western thought during ancient and medieval times.

PHL 304 Renaissance and Modern Philosophy 3 hrs.
Development of ideas having a significant influence on Western thought during the Renaissance and modern periods, terminating with the philosophy of Hegel.

PHL 306 Recent Philosophy 3 hrs.
Development of ideas having a significant influence on Western thought during the 19th and 20th centuries.
PHL 307 Classical Political Philosophy 3 hrs.  
(General Ed. HP)  
Systematic political thought in Western philosophy during ancient and medieval times. Cross listed as PLS 307. Prerequisite: junior standing.

PHL 308 Modern Political Philosophy 3 hrs.  
(General Ed. HP)  
From the beginning of the modern period through the 19th century. Cross listed as PLS 308. Prerequisite: junior standing.

PHL 311 Existentialism 3 hrs.  
Philosophical meaning of existentialism and its relation to literature, theology, psychology, and psychiatry. Prerequisite: 3 hours of philosophy or religious studies, or consent of instructor.

PHL 320 Symbolic Logic 3 hrs.  
Logical systems: propositional and predicate calculi. Truth tables, proofs, tautologies, principles of inference, Boolean algebra, DeMorgan’s Laws, quantifiers, representations, and set theory. Cross-listed as CS 320. Prerequisite: MTH 120.

PHL 344 Philosophy of Religion 3 hrs.  
Nature of religion; function and validity of religious concepts in the modern world. Cross listed as RLS 344. Prerequisite: 3 hours of religious studies or philosophy.

PHL 347 Ethics 3 hrs.  
(General Ed. HP)  
Major ethical theories as they provide insights into our existence as moral beings; how we exhibit this in moral decision and behavior.

PHL 350 Art in Human Experience 3 hrs.  
(General Ed. FA)  
Detailed examination and explanation of various forms of visual, musical, literary, and dramatic arts; function of artistic creation in offering direct experience and appreciation of the essence of human feeling. Background in the arts recommended.

PHL 403, 404 Seminar in Philosophy 3 hrs. each  
Advanced study of a particular thinker, system, work, or movement in philosophy. Prerequisite: 6 hrs. in philosophy, or consent of instructor.

PHL 407 American Political Philosophy 3 hrs.  
Systematic political thought in American philosophy from colonial times to the present. Cross listed as PLS 407. Prerequisite: PLS 207, or consent of instructor.

PHL 551, 552 Reading in Philosophy 1–3 hrs. each  
Directed individual study. Prerequisites: 6 hours in philosophy; senior or graduate standing; consent of department chair.

Religious Studies Program

RELIGIOUS STUDIES FACULTY  Professor Fuller; Associate Professors Getz (chair), Meyer; Assistant Professor Zaborowski.

The primary concern of the program is for the undergraduate student who would elect study in this significant area of human culture and life. A comprehensive and non-sectarian program of studies is provided to meet the special interests and needs of all students. The program is also appropriate for students electing a major in religious studies with the intention of preparing for matriculation for the Master of Arts degree in religious studies (or religion) at another institution.

Major

To major in religious studies a student must:
1. complete not less than 24 semester hours in religious studies, including not less than 20 in courses numbered 200 or above; and
2. have a grade point average exceeding 2.0 in all religious studies courses numbered 200 or above;
3. select a member of the religious studies faculty as an academic advisor in order to plan the choice and sequence of religious studies courses; and
4. complete the all-University course requirements and the College of Liberal Arts and Sciences course requirements.

Religious studies majors may earn either a B.S. or B.A. degree. Religious studies majors intending to pursue a graduate degree in religious studies, however, are urged to fulfill the B.A. requirements.

Minor

To minor in religious studies a student must:
1. complete not less than 15 semester hours in religious studies;
2. have a minimum grade point average of 2.0 in all religious studies courses;
3. complete the following courses:
   a. RLS 101 Introduction to Religious Studies
   b. RLS 331 and RLS 332 Religions of the World
   c. One of the following: RLS 300 Hebrew Bible/Old Testament, RLS 302 New Testament, RLS 308 Christian Beliefs and Teachings
   d. An elective.
4. select a member of the religious studies faculty as an academic advisor in order to plan a coherent structured course of study developed according to the needs and interests of the student.
Course Descriptions

RLS 101 Comparative Religion 3 hrs. (Gen. Ed. HP)
Survey of human values and religious experiences found in major religions of the world.

RLS 121 Islamic Civilization 3 hrs. (Gen. Ed. NW)
Introduction to the Islamic Civilization of the Middle East, including primary literature produced by Muslims and members of other religious communities living under the aegis of Islam, from the seventh century to the present.

RLS 200 Contemporary Religion in the United States 3 hrs. (Gen. Ed. HP)
Analysis of religious faith, worship, and practice in an age of transition. Emphasis on challenges that confront a person's faith. Survey of major American religious denominations.

RLS 280 Psychology of Religion 3 hrs.
An overview of both theory and method in the psychological study of religion. Emphasis will be on understanding the biological and psychological underpinnings of religious belief, behavior, and experience. Cross listed as PSY 280. Prerequisite: PSY 104.

RLS 300 Hebrew Bible/Old Testament 3 hrs. (Gen. Ed. HP)
Human values relevant to contemporary life found in ancient writings of Judaism and Christianity.

RLS 302 New Testament 3 hrs. (Gen. Ed. HP)
Human values in the early Christian experience as reflected in its scriptures.

RLS 308 Christian Beliefs and Teachings 3 hrs.
Traditional teachings and contemporary developments in the study of the Christian religion.

RLS 320 Muslim-Christian Relations 3 hrs.
Historical and theoretical analysis of relationships between Muslims and Christians, including a careful examination of the Middle Eastern Christian communities at the time of Muhammad, and after. Explores the ways Muslims and Christians have developed theological and social categories for characterizing each other.

RLS 321 Islam & The West: Clash of Civilizations? 3 hrs.
Historical and theoretical analysis of the modern crisis in relations between the Arab Islamic world and the West. Examines the modern rise of nation-states, Western imperialism, and Islamic "fundamentalism" in the Middle East.

RLS 330 The Human Condition 3 hrs.
Multidisciplinary examination of the limits and possibilities of human nature. Evolutionary biology, developmental psychology, philosophical ethics, and contemporary religious thought. Prerequisite: junior/senior standing.

RLS 331 Religions of the Eastern World 3 hrs. (Gen. Ed. NW)
Historical and cultural study of the religions of India, Southeast Asia, and China.

RLS 332 Religions of the World 3 hrs. (Gen. Ed. HP)
Historical and literary study of Judaism, Christianity, and Islam.

RLS 336 Buddhism and Asian Civilizations 3 hrs. (Gen. Ed. NW)
Historical survey of the development of Buddhism in the civilizations of India, Southeast Asia, East Asia, and Tibet. Origins of the Buddhist tradition and the development of its basic beliefs, practices, and institutions within the context of Asian civilizations.

RLS 338 China: Religion and Culture 3 hrs. (Gen. Ed. NW)
Historical and cultural survey of Chinese religions. Development of Chinese religion and philosophy from ancient times until the present. Major traditions of Confucianism, Taoism, and Buddhism, as well as popular belief and culture.

RLS 340 Japan: Religion and Culture 3 hrs. (Gen. Ed. NW)
Historical and cultural survey of religion in Japan, primarily Buddhism and Shinto. Folk religion, Chinese influences, and the New Religions.

RLS 344 Philosophy of Religion 3 hrs.
Nature of religion; function and validity of religious concepts in the modern world. Cross listed as PHL 344. Prerequisite: 3 hours of religious studies or philosophy.

RLS 350 Topics in Religious Studies 3 hrs. each
Topics of special interest which may vary each time course is offered. Topic stated in current Schedule of Classes.

RLS 497, 498 Problems in Religious Studies 1-3 hrs. each
Primarily for undergraduate RLS majors: comprehensive and integrated survey of the discipline at an advanced level; projects in special areas. Prerequisite: consent of instructor.
Department of Physics

FACULTY Professors Craig, Early, Wang; Associate Professors Kimberlin (chair), Lozano, Roos.

The Department of Physics has designed its programs and courses in physics and astronomy with two principal objectives in mind. First, for citizens to lead productive lives individuals need to be scientifically and technologically literate. Therefore, the department offers physics courses that are accessible to all of the university’s students. Several of our courses have been especially tailored for the nonscientist. Second, a technological society has need for teachers, scientists, and engineers who have a broad and deep understanding of the basic physical laws. The department has programs and courses designed for students majoring in scientific and technical areas that will prepare them for professional careers or advanced study in these areas.

The Department of Physics offers introductory courses that cover the entire range of preparation in science and mathematics found at the university. Some require little or no science or mathematics preparation. Examples of such courses are PHY 100, PHY 123, and AST 300. Most of the other courses offered by the department require some prior exposure to science and mathematics. Therefore, students wishing to study physics will find entry-level courses appropriate to their abilities and preparation.

The Department of Physics offers two majors in the College of Liberal Arts and Sciences and one in the College of Engineering and Technology. The department also offers a minor. The specific program a student follows depends to a great extent on the particular interests of the student. Each student must work with a faculty advisor to plan an interesting course of study that satisfies the student’s needs and all department, college, and university requirements.

Requirements for All Physics Majors
The physics major consists of at least 30 hours. All students majoring in the various programs in physics are required to complete the following courses in physics: PHY 110, 199, 201, 301, 305, 306, 350, 467, 501 and 563. In addition to these courses, the student must complete either PHY 202 or 303 as well as certain physics electives at the 300 to 500 level. All physics majors are expected to present the results of their research experience while enrolled in PHY 563 at a departmental colloquium. Mathematics courses required by all physics majors are MTH 121, 122, 207, 223, 224, and 501 or an upper-division mathematics course approved by the Physics Department. A chemistry course, CHM 110, and its laboratory component, CHM 111, are also required.

Liberal Arts and Sciences Physics Major
The students who seek this major can generally be grouped into three categories:

- Professional Physicists. These students intend to continue their formal education in physics by pursuing a graduate degree in physics.
- Professional School Preparatory: these students are using the physics major as preparation for entering professional school programs such as medicine, engineering, or law.
- Second Major: these students use the physics major to develop their problem-solving skills and for increasing their understanding of the physical universe while choosing their primary major in areas such as computer science, chemistry, or mathematics.

These students will complete the core courses as indicated above. In addition, all of these students must complete two additional courses in physics selected from the following: PHY 320, 345, 350, 361, 502, and 568. Students seeking to become professional physicists are strongly encouraged to complete all of these courses. In addition, CHM 112 and, in special cases, CHM 250 are recommended. Three additional mathematics courses chosen from MTH 307, 325, 326, 403, 420, 421, 502, 510, and 514 are strongly recommended.

Secondary Education-Physics Teaching Major
Students preparing to teach physics at the high-school level must complete the requirements for a secondary teaching certificate to be certified in the state of Illinois. These requirements are listed in this catalog under the Department of Teacher Education (Secondary Programs) and consist of a minimum of 38 semester hours in professional education courses. The courses used to fulfill the General Education requirement must also be chosen to fulfill certification requirements. Secondary Education-Physics Teaching majors are also required to take courses that will qualify them to be certified in a second teaching area. This will require that from 6 to 15 semester hours be completed in the second area chosen. Students must consult with advisors from...
both the Physics Department and the College of Education and Health Sciences. In addition to the courses required of all physics majors the students selecting this variation in the physics major must complete two courses from the following: PHY 320, 345, 361, 350, 502, and 568.

**Engineering Physics**
The engineering physics major is offered through the College of Engineering and Technology. Details of this program are found in the College of Engineering and Technology section of this catalog. Engineering physics majors must meet all the requirements of the University and College of Engineering and Technology in addition to taking the required courses in physics and mathematics indicated above. Faculty advisors from both physics and engineering advise students who major in engineering physics.

**Physics Minor**
The physics minor consists of PHY 110; 201; and 202 and three additional elective courses at the 300 level chosen to fit the student’s special interests. Students may select from the following: PHY 301, 303, 305, 306, 320, 345, 350 (two semester hours), 361, 467, and 501.

**Suggested Program for the LAS Physics Major**
The schedule of courses shown below lists only the physics courses required by all LAS physics majors. Elective courses would then be chosen to fulfill the requirements for the particular variation chosen by the student. Some course requirements may be met through Advanced Placement tests, proficiency examinations, or transfer credit.

**Freshman Year**

**First Semester**

- Gen. Ed.—Western Civilization .................................................3
- PHY 199 Physics Seminar ..............................................................1
- CHM 110 General Chemistry I ..................................................3
- CHM 111 General Chemistry I Laboratory ..................................1
- ENG 101 Composition ...................................................................3
- MTH 121 Calculus I .......................................................................4
  15

**Second Semester**

- PHY 110 University Physics I ....................................................4
- Gen. Ed.—Fine Arts .................................................................3
- Gen. Ed.—Social Forces ............................................................3
- COM 103 Oral Communication Process ....................................3
- MTH 122 Calculus II ....................................................................4
  17

**Sophomore Year**

**First Semester**

- Physics 201 University Physics II .................................................4
- Elective .......................................................................................3
- MTH 223 Calculus III .................................................................4
- Gen. Ed. Human Values—Philosophy .......................................3
  17

**Second Semester**

- PHY 202 Applied Quantum Mechanics or elective ...................3
- Gen. Ed.—Non-Western Civilization ..........................................3
- Elective .......................................................................................3
- MTH 224 Elementary Differential Equations ..............................4
- MTH 207 Linear Algebra ............................................................3
  16

**Junior Year**

**First Semester**

- MTH 501 or an approved math course .......................................3
- PHY 305 Electricity and Magnetism ............................................3
- PHY 301 Classical Mechanics ..................................................3
- ENG 30X Junior Composition ....................................................3
- Gen. Ed. Human Values (Literature) .........................................3
  15

**Second Semester**

- PHY 303 Quantum Physics or elective .......................................3
- PHY 306 Electromagnetic Waves ................................................3
- PHY 350 Applied Quantum Physics Lab .....................................1
- PHY Elective ................................................................................3
- Electives .....................................................................................6
- PHY 563 Special Problems in Physics .......................................1
  17

**Senior Year**

**First Semester**

- PHY 501 Quantum Mechanics I .................................................3
- PHY 563 Special Problems in Physics .......................................1
- PHY 467 Statistical and Thermal Physics ....................................3
- PHY Elective ................................................................................3
- Electives .....................................................................................6
  16

**Second Semester**

- PHY Elective ...............................................................................6
- PHY 563 Special Problems in Physics .......................................1
- Electives .....................................................................................9
  16

Total Hours 129

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Bradley University


**Suggested Program for Secondary Education - Physics Teaching Major**

A student preparing to teach physics at the high-school level should follow the sequence shown below. Students who plan to teach in states other than Illinois should be aware that some of the education courses in this sequence might not apply toward certification in those states.

A second teaching field is required. The student must consult an advisor for specific requirements for the second teaching field.

### Freshman Year

**First Semester**

- PHY 110 University Physics I ................................................. 4
- PHY 199 Physics Seminar ....................................................... 1
- MTH 121 Calculus I ................................................................. 4
- ENG 101 English Composition ................................................. 3
- Gen. Ed. (SF) ........................................................................ 3
- CHM 110 Gen. Chem. I or CHM 300 ............................................ 3

**Second Semester**

- PHY 201 University Physics II .................................................. 4
- MTH 122 Calculus II ................................................................. 4
- COM 103 Oral Communication Process .................................. 3
- ETE 115 Schools and Schooling in American Society ............. 3
- ETE 116 Field Experience for ETE 115 ................................. 1
- Gen. Ed. – Human Values (ENG 115 or 121) .......................... 3

**Sophomore Year**

**First Semester**

- PHY 202 Applied Quantum Physics ....................................... 3
- PHY 350 Applied Quantum Physics Laboratory ..................... 1
- MTH 223 Calculus III .......................................................... 4
- CS 106 Intro. to Programming and Computer Science .......... 3
- Gen. Ed. CIV 100 Western Civilization .................................. 3
- ETE 100 Technology Applications ........................................ 1
- ETE 280 Exploring Diversity ............................................... 3

**Second Semester**

- PHY 320 Optics ..................................................................... 3
- PHY 350 Optics Laboratory .................................................. 1
- MTH 224 Elem. Differential Equations ................................. 4
- ETE 225 Human Development .............................................. 4
- BIO 121 Life Sci. I or BIO 300 ............................................. 3
- FCS 203 or NUR 163, 220, 221, 263, or 376 .......................... 3

### Junior Year

**First Semester**

- PHY 305 Electricity and Magnetism ..................................... 3
- Second Teaching Area ......................................................... 3
- English: 300-level Junior Composition .................................. 3
- ETE 360 Teaching Reading in the Content Field .................. 3
- ETE 370 General Secondary Methods I ............................... 3
- Gen. Ed. Fine Arts ................................................................. 3

**Second Semester**

- PHY 301 Classical Mechanics ............................................. 3
- PHY 306 Electromagnetic Waves ........................................... 3
- Second Teaching Area ......................................................... 3
- ETE 374 Methods of Teaching Secondary Science ............... 2
- ETE 371 General Secondary Methods II ............................. 3
- ETE 379 Novice Teaching in the Secondary School ............ 2

**Summer**

- Gen. Ed. Non-Western Civilization ..................................... 3

### Senior Year

**First Semester**

- PHY 301 Quantum Mechanics I .......................................... 3
- PHY 467 Statistical and Thermal Physics ............................... 3
- Second Teaching Area ......................................................... 2
- MTH 501 or an approved mathematics course .................. 3
- ETE 342 Guiding Learners and Developing Classroom Communities ................................................. 3
- Gen. Ed. (Humanities Phil.) .................................................. 3

**Second Semester**

- PHY 361 Electronics ......................................................... 3
- PHY 563 Special Problems in Physics ................................ 2
- ETE 490 Student Teaching Professional Portfolio .................. 1
- ETE 499 Student Teaching in the Secondary Schools ........ 10 or 13

**Total Hours** 142-145
Course Descriptions

Astronomy

AST 300 Astronomy: Our Glimpse of the Cosmos 3 hrs. (Gen. Ed. TS)
Various scientific views of the cosmos; how modern astronomy has enlightened and broadened these views. Relationships between man, technology, and the universe through scientific knowledge of planets, stars, galaxies, and the cosmos will be investigated. Experimental discoveries in astronomy are examined, analyzed, and discussed. Prerequisites: junior standing; a basic science course.

AST 310 Astronomy and Astrophysics 3 hrs.
Scientific and contemporary study of broad range of astronomy and astrophysical topics: overview of the universe, superclusters of galaxies, stars, planetary systems, and subsystems of objects. Analytical presentations of special topics: stellar evolution, quasi-stellar objects, black holes, and cosmological concepts. Scientific-technical elective for science and engineering majors. Prerequisites: junior standing; one year of analytical science.

Physics

PHY 100 Fundamental Physics Concepts 4 hrs. (Gen. Ed. FS)
Algebra-based course for students with minimal physics background. Topics introduced include Newton's laws of motion, electromagnetism, thermodynamics, optics, and atomic theory. Emphasis is on basic physical principles. Includes laboratory.

PHY 107 General Physics I 4 hrs. (Gen. Ed. FS)
Algebra- and trigonometry-based introductory physics course which covers Newtonian mechanics and conservation laws; fluid statics and dynamics; vibrations, waves, and sound; laws of thermodynamics. Includes laboratory. Prerequisite: high school physics or PHY 100.

PHY 108 General Physics II 4 hrs. (Gen. Ed. FS)
Continuation of PHY 107. Electric and magnetic fields; electromagnetic induction; electromagnetic waves; geometrical and physical optics; the special theory of relativity; quantum theory, atomic physics, and nuclear and particle physics. Includes laboratory. Prerequisites: PHY 107; MTH 115.

PHY 110 University Physics I 4 hrs. (Gen. Ed. FS)
A calculus-based introductory physics course for scientists and engineers that covers Newton's laws of motion; conservation laws for momentum, energy, and angular momentum; fluid statics and dynamics; laws of thermodynamics. Includes laboratory. Prerequisites: high school physics or PHY 100; MTH 121. Corequisite: MTH 122.

PHY 123 Physical Science, Basis for a Technical Society 3 hrs. (Gen. Ed. FS)
A course for non-science students with minimal preparation in mathematics and science. Emphasizes basic concepts from the physical sciences and their significance for a scientifically literate society. Topics in physics, chemistry, computing, energy, and astronomy will be covered from an applications perspective. Students with prior college physics courses may not register for this course.

PHY 199 Physics Seminar for New Physics Majors 1 hr.
Orientation for students interested in a physics career. Prerequisites: freshman or sophomore standing; physics major or minor.

PHY 201 University Physics II 4 hrs. (Gen. Ed. FS)
Continuation of PHY 110 covering electric fields and DC circuits; magnetic fields, electromagnetic induction and AC circuits; oscillations and waves; Maxwell's equations; and geometrical and physical optics. Includes laboratory. Prerequisites: PHY 110. Corequisite: MTH 223.

PHY 202 Applied Quantum Physics 3 hrs. (Gen. Ed. FS)
An introduction to relativity and relativistic mechanics; quantum theory with applications to atomic and molecular physics; condensed matter physics; nuclear and particle physics. Prerequisite: PHY 201. Corequisite: MTH 223. PHY 350 required for physics majors; optional for all other majors.

PHY 301 Classical Mechanics 3 hrs.
Particle kinematics; Newtonian mechanics; classical gravitation; Lagrangian and Hamiltonian dynamics; linear oscillations; nonlinear oscillations; central force and planetary motion; collisions between particles; motion in noninertial systems. Prerequisites: PHY 201; MTH 224.

PHY 303 Quantum Physics 3 hrs.
Foundations of quantum theory: deBroglie's postulate, Bohr model of the atom, and the Schrodinger equation; applications of quantum theory to atoms, solids, nuclei, and particles; relativity. Prerequisite: PHY 201. Corequisite: the appropriate section of PHY 350.

PHY 305 Electricity and Magnetism 3 hrs.
Introduction to vector calculus; electrostatics in vacuum and dielectrics including boundary value problems; method of images, steady currents, and magnetostatics in vacuum. Prerequisites: PHY 201; MTH 224. Corequisite: MTH 501 or an upper-division mathematics course approved by Physics Department.

PHY 306 Electromagnetic Waves 3 hrs.
Plane electromagnetic waves in vacuum, magnetic materials, and conductors; reflection and refraction, guided
waves, and radiation of electromagnetic waves. Prerequisite: PHY 305; MTH 501 or an upper-division mathematics course approved by Physics Department.

**PHY 320 Optics**

Geometrical optics: matrix methods, mirrors, lenses, fibers, thick optics, optical instruments; physical optics including interference, diffraction, polarization, lasers, and holography. Prerequisites: PHY 202 or 303. Corequisite for all physics majors or minors: PHY 350, “Optics Laboratory.”

**PHY 345 Radiation Biology**

Role of ionizing radiation in the biological and medical sciences: production, detection, and measurement of radiation, physically and biologically; interaction of radiation with matter at molecular, cellular, whole body, and whole population levels; applications of radiation as a useful and experimental tool. Cross listed as BIO 345. Prerequisites: PHY 108; MTH 115 or 121; C or better in BIO 124.

**PHY 350 Advanced Physics Experiments**

Laboratory: design of experiments and techniques of measurement, particularly electronic instrumentation, in investigating fundamental relationships in all areas of physics. One three-hour laboratory session per week per credit hour required. May be repeated for maximum of 4 hrs. credit. Sections of this course may provide a lab component for PHY 202, 303, and 320. Prerequisite: consent of department chair.

**PHY 361 Electronics**

Electronic principles with application to measurement devices utilized in science research. Self-paced instruction and laboratory work. Prerequisites: PHY 201; MTH 122.

**PHY 467 Statistical and Thermal Physics**

A theoretical treatment of classical thermodynamics with applications of the first and second laws, and an introduction to statistical mechanics, including quantum statistics, canonical and grand canonical ensembles, general properties of the partition function, applications of statistical mechanics to fluid and solid systems, and the Ising model. Prerequisites: PHY 301; PHY 202 or 303.

**PHY 501 Quantum Mechanics I**

Inadequacies of classical physics when applied to problems in atomic and nuclear physics. Development of mathematical formalism used in basic quantum theory, with applications to simple models of physical systems. Prerequisites: PHY 301; PHY 202 or 303, 306 or consent of instructor. MTH 207 recommended.

**PHY 502 Quantum Mechanics II**

The mathematical formalism of quantum mechanics with applications to problems of electron spin and many-particle systems will be studied along with the development of approximation techniques with applications to complex physical systems. Prerequisite: PHY 501.

**PHY 539 Topics in Theoretical Physics**

Topics of special interest which may vary each time course is offered. Topic stated in current Schedule of Classes. Prerequisites: PHY 301, 305, 501; consent of instructor.

**PHY 541 Physics Basics**

Numerical and graphical analysis of data; basic mechanics including Newton’s laws and gas laws; hydrostatics and hydrodynamics; energy conservation principles; thermal physics; electricity and magnetism; and solubility and transport processes. Only students in the Nurse Administered Anesthesia Program may register.

**PHY 545 Biophysics**

Applications of physics principles and methods to investigation of biological systems. Emphasis on physical environmental effects on biological systems. Cross listed as BIO 545. Prerequisites: PHY 108 or 201; senior standing; or consent of instructor. PHY 345 recommended.

**PHY 555 Independent Readings**

Individually assigned reading assignments of relevant topics in physics or astronomy. Prerequisites: senior or graduate standing; background appropriate to the study; consent of instructor.

**PHY 563 Special Problems in Physics**

Qualified students work on an individually assigned problem and prepare oral and written reports on the problem solution. Approved for off-campus programs when required. May be repeated for a maximum of 6 hrs. credit. Prerequisites: physics preparation sufficient for the problem; consent of instructor and Department Chair.

**PHY 568 Condensed Matter Physics**

Introduction to the physics of the solid state and other condensed matter especially for students of physics, materials science, and engineering; structure of crystals; molecular binding in solids, thermal properties, introduction to energy band structure and its relation to charge transport in solids, semiconductors, superconductivity. Prerequisite: Physics majors: PHY 301, 202 or 303; PHY 305. Corequisite: PHY 306. Other majors need instructor consent.
Department of Political Science

FACULTY  Professors Aspin (chair), Gill, Hall, Lermack; Associate Professors Curtis, Dannehl, Gobeyn; Distinguished Adjunct Professor Michel.

The undergraduate major is designed to maximize students’ capacity to analyze and interpret the significance and dynamics of political events and governmental processes be they at the global level or at the local community level. Students build an excellent foundation for numerous careers by mastering the accumulated basic general knowledge of political science and developing the related analytical skills. Political science majors most frequently pursue careers in law, business, governmental service, private political organizations, journalism, and academic political science. Many students with yet other career aspirations major in political science so they can understand not only how government affects them, but also how they can affect government.

Major in Political Science
A major in political science consists of a minimum of ten political science courses and satisfaction of the department’s requirements for either the B.A. or B.S. degree.

Political Science Course Requirements
The political science requirements are: (1) A core of four courses to provide a grounding in the traditional sub-fields of the discipline: PLS 105, American politics; PLS 205, comparative politics; PLS 207, political theory; and PLS 208, international relations; (2) PLS 209, scope and methods of political science; (3) two upper-level (300-400) courses in each of two sub-fields to permit concentration and to acquire a depth of understanding; and (4) a senior seminar (PLS 491, 492, 493, or 494) designed to be a culminating experience.

Sub-field course work is distributed as follows:

American politics:  PLS 105, 202, 301, 310, 311, 360, 419, 420, 421, 422, 440, 459, 460, 494
Comparative politics:  PLS 205, 304, 305, 306, 491
International relations:  PLS 208, 302, 317, 318, 319, 492
Political theory:  PLS 207, 300, 307, 308, 407, 493

Each student’s prospectus, which must be approved by his/her advisor, will outline the courses to be taken to satisfy the degree requirements. Individual interests and special capabilities of the student, as well as the scope of the discipline, are considered in preparing the prospectus. Courses initially proposed in the prospectus may be revised upon approval of the advisor. The Political Science Department maintains a policy of close supervision of its majors and urges them to consult regularly with their faculty advisor.

In planning their academic program, students intending to major in political science are encouraged to complete the core courses (PLS 105, 205, 207, 208) as early as practicable. Students should complete PLS 209 prior to enrolling in a senior seminar.

Bachelor of Arts Degree Requirements
Two years or its equivalent of college-level foreign language. (This means that a student must complete 202 or a 300-level language course. Whenever that has been completed, the requirement has been met.)

Bachelor of Science Degree Requirements
Students must complete the university requirements for the Bachelor of Science degree. When selecting courses to satisfy the B.S. requirements, students are strongly encouraged to select from mathematics, computer science, statistics, or quantitative methods.

Minor in Political Science
The minor is to provide students with a flexible, coherent, and guided study in the discipline of political science as it relates to their specific academic major or personal interests and needs. The minor requires a minimum of 15 hours in political science, at least 9 hours of which must be at the junior-senior level. The 9 hours of junior-senior-level courses cannot also be used to satisfy the requirements of any other major or minor.

All minors must take PLS 105, PLS 209, and a senior seminar (PLS 491, 492, 493, or 494). In addition, the student must take 6 hours of junior-senior level courses representing a coherent program of study and meeting the approval of a political science faculty advisor. It is the role of the student’s faculty advisor to help work out a specific program coinciding with the student’s academic major, interests, and needs.

Some suggested programs of study:
Public Management:  105, 209, 419, 420, 421, 422, 494.
Communications and Politics:  105, 209, 301, 310, 360, 419, 494.
Behavioral Politics:  105, 209, 301, 310, 311, 360, 422, 494.
International and Comparative Politics: 105, 209, 302, 304, 305, 317, 318, 319, 491 or 492.
Urban Politics: 105, 209, 419, 420, 421, 422, 494.

Off-Campus Programs
Political science majors are urged to consider the many off-campus programs available. Bradley annually sends students to the various Washington Semester programs (through American University in Washington, D.C.). The University also participates in many programs of study abroad. Students are also urged to consider participating in either the department’s internship program or in the University’s Cooperative Education/Internship Program (see the Cooperative Education/Internship section of this catalog). Bradley students are eligible to do internships through the Washington Center for Internships. The Center seeks to utilize the resources of the nation’s capital to provide participatory learning experiences in order to enhance students’ academic, civic, and professional development. All of these programs provide students with practical experience while they are pursuing academic goals.

Pre-Law
A statement on pre-law curricula is given at the beginning of the College of Liberal Arts and Sciences section of this catalog.

Course Descriptions

PLS 105 Introduction to American Government 3 hrs. (Gen. Ed. SF)
The American political system: constitutional principles, political processes, and governmental policy making.

PLS 202 State and Local Government 3 hrs.
Political processes through which rapidly growing problems of the state and local governments are identified, fought over, and resolved.

PLS 205 Introduction to Comparative Politics 3 hrs. (Gen. Ed. SF)
Comparative analysis of selected political systems. Prerequisite: PLS 105 or consent of instructor.

PLS 207 Introduction to Political Thought 3 hrs. (Gen. Ed. HP)
Recurrent concepts or issues in political thought and ways they have been treated by classic and contemporary writers. Obligation and the social contract, liberty, justice and equality, property, representation.

PLS 208 Fundamentals of International Relations 3 hrs. (Gen. Ed. SF)
Fundamental issues and problems that have contributed to structuring current patterns of international relations. Prerequisite: PLS 105 or consent of instructor.

PLS 209 Scope & Methods of Political Science 3 hrs.
Introduction to political inquiry; research methods necessary for in-depth research. Prerequisite: PLS 105.

PLS 290 Participation in Mock Trial 1 hr.
Research and performance laboratory for students who participate in the American Mock Trial Association competition. May be repeated for a maximum of 4 hours credit. Prerequisite: consent of instructor.

PLS 300 Topics in Political Thought 3 hrs.
Topics of special interest which may vary each time course is offered. Topic stated in current Schedule of Classes. May be repeated under a different topic for a maximum 6 hours credit. Prerequisite: PLS 105.

PLS 301 Topics in American Politics 3 hrs.
Analysis of research, concepts, institutions, theories, and literature. Topics of special interest which may vary each time course is offered. Topic stated in current Schedule of Classes. May be repeated under a different topic for a maximum of 6 hours credit. Prerequisite: PLS 105.

PLS 302 Topics in International Relations 3 hrs.
Topics of special interest which may vary each time course is offered. Topic stated in current Schedule of Classes. May be repeated under a different topic for a maximum of 6 hours credit. Prerequisite: 3 hours of political science.

PLS 304 Governments of West Europe 3 hrs.
Governmental structures, public policies, policy making processes, ideological foundations, and dynamics of political and economic change in the parliamentary democracies of West Europe; emphasis on Britain, France, Germany, the Netherlands, and Sweden. Prerequisite: PLS 205.

PLS 305 Topics in Comparative Government 3 hrs.
Topics of special interest which may vary each time course is offered. Topic stated in current Schedule of Classes. May be repeated under a different topic for a maximum of 6 hours credit. Prerequisite: PLS 205.

PLS 306 Comparative Public Policy 3 hrs.
A comparative introduction to the social and economic policies of such advanced industrial democracies as Japan, Britain, France, Germany, Sweden, the Netherlands, and the United States. Prerequisite: PLS 205.

PLS 307 Classical Political Philosophy 3 hrs. (Gen. Ed. HP)
Systematic political thought in Western philosophy during ancient and medieval times. Cross listed as PHL 307. Prerequisite: junior standing.

PLS 308 Modern Political Philosophy 3 hrs. (Gen. Ed. HP)
From the beginning of the modern period through the 19th century. Cross listed as PHL 308. Prerequisite: junior standing.
PLS 310 Political Behavior 3 hrs.
Formation of opinion, perception of political events, voting behavior, and political participation; significance for democratic government. Prerequisite: PLS 105.

PLS 311 Political Parties: Electorate & Politics 3 hrs.
Organization and activities of modern political parties, forces shaping partisan organization and activities, and development of public policy. Emphasis on party politics in contemporary America, with attention to American political history and comparative party systems. Prerequisite: PLS 105.

PLS 317 International Law 3 hrs.
Nature, sources, and development of international law as it has been invoked in diplomatic practices, international adjudications, and national courts. Prerequisite: PLS 208 or consent of instructor.

PLS 318 International Organization 3 hrs.
The analysis of major international problems of a character requiring the concerted efforts of international organization in their solutions. Prerequisite: PLS 208 or consent of instructor.

PLS 319 International Political Economy of the Industrialized World 3 hrs.
Overview of theories and issues in international political economy affecting relations among advanced industrialized countries. Development of the international political economy; institutions for its management; emerging issues and future prospects. Prerequisites: ECO 222; PLS 208; or consent of instructor.

PLS 360 Judicial Politics 3 hrs.
(General Ed. SF)
Political behavior of American trial courts and variables connecting them to the larger political system. Examples from criminal procedure and civil justice cases. Emphasis on police and prosecutorial discretion; recruitment of judges; juries; and social function of judgments and punishments. Prerequisite: PLS 105 or consent of instructor.

PLS 380 Washington Center Seminar 3 hrs.
Provides credit for students participating in the seminar component of the Washington Center program in Washington, D.C. Prerequisites: consent of instructor.

PLS 390 Participation in Mock Trial 1 hr.
Research and performance laboratory for junior and senior students who participate in the American Mock Trial Association competition. May be repeated for a maximum of 4 hours credit. Prerequisites: consent of the instructor; junior/senior standing.

PLS 407 American Political Philosophy 3 hrs.
Systematic political thought in American philosophy from colonial times to the present. Cross listed as PHL 407. Prerequisite: PLS 207 or consent of instructor.

PLS 419 Introduction to Public Administration 3 hrs.
Public administration in a democratic setting: history of American PA, organization theory, public personnel, budgeting, intergovernmental relations, decision making and policy analysis, the regulatory process, and ethics in government. Prerequisite: PLS 105 or 202.

PLS 420 Public Personnel Administration 3 hrs.
A study of the basic issues and techniques of public personnel administration: focus on the distinctive setting in which public managers function, theories of motivation in the work place, and the tasks commonly faced by human resource managers in the public sector. Prerequisite: junior standing.

PLS 421 The Politics of Regulation 3 hrs.
An examination of the modern administrative state through an in-depth study of the federal regulatory process; administrative law and procedure; the politics involved in the development and reform of the federal regulatory bureaucracy. Prerequisites: PLS 105; junior standing.

PLS 422 Urban Politics 3 hrs.
Study of selected problems in metropolitan areas: political forms, ethnic politics, education, housing, poverty, corrections; theories dealing with these problems. Prerequisites: PLS 105; junior standing.

PLS 440 Public Policy Analysis 3 hrs.
In-depth study of the policy making process, including agenda setting, policy formation, implementation, evaluation, and change. Prerequisites: PLS 105, 209; or consent of instructor.

PLS 459 Constitutional Law 3 hrs.
Position of the Supreme Court in American system of government as both symbol and instrument of power. Case method. Prerequisite: PLS 105; junior standing.

PLS 460 Constitutional Law 3 hrs.
Supreme Court as one of the policy making agencies of the federal government. Relationship between citizen and government in civil, property, and political rights. Prerequisite: PLS 105; junior standing.

PLS 480 Internship in Political Science 1-6 hrs.
Students work with selected political agencies, to study practical political problems from the perspective of the discipline. Course may be repeated for a maximum of six credit hours. Pass/Fail. Prerequisite: consent of the instructor.

PLS 485 Research 1-6 hrs.
Individual research for qualified students. May be repeated for a maximum of 6 hours credit. Prerequisites: 3.2 average in student's major; junior/senior standing; consent of instructor.
Each of the 490 courses listed below consists of specialized study in the particular area offered. Prerequisites: senior standing; major or minor in political science. No political science major may take more than two courses in the 490 sequence.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
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<tbody>
<tr>
<td>PLS 491</td>
<td>Seminar in Comparative Politics</td>
<td>3 hrs.</td>
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<tr>
<td>PLS 492</td>
<td>Seminar in International Relations</td>
<td>3 hrs.</td>
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<td>PLS 493</td>
<td>Seminar in Political Theory</td>
<td>3 hrs.</td>
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<tr>
<td>PLS 494</td>
<td>Seminar in American Politics</td>
<td>3 hrs.</td>
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PLS 583, 584  Reading in Political Science  1-3 hrs.  each semester

Individual in-depth work on a subject approved and supervised by a PLS faculty member. For highly qualified students. Prerequisites: senior standing; political science major; consent of instructor.
Department of Psychology

FACULTY  Professors Etaugh, Huffcutt, D.E. Montgomery, Schmitt (chair); Associate Professors D.A. Montgomery, Roberts, Schweigert; Assistant Professor Hermann, Koeltzow.

Psychology is the scientific study of behavior. Our program emphasizes both knowledge of the specific subject areas of psychology and the way of thinking that characterizes the field. The undergraduate degree in psychology provides the foundation for a variety of industrial or human service positions and also serves as preparation for advanced study leading to master’s, doctoral, or professional degrees.

Facilities for students include research laboratories, such as the Child Study Center for research on children under four years of age, and a student resource room with wireless laptop availability. Faculty research areas include child development, human sexuality, psychology of women, personnel selection, health behavior change, behavioral pharmacology, and psycholinguistics. Undergraduate students frequently work with faculty on research projects; internships for course credit also are available at local mental health facilities.

Students transferring into Psychology from other Bradley majors must have a GPA of 2.5 or greater.

Psychology Major
To major in psychology the student must complete a minimum of 34 hours that will include:

1. PSY 104 (with a grade of C or better).
2. PSY 205 (with a grade of C or better).
3. PSY 306.
4. A minimum of one course from the each of the following categories. Only jr.-sr. level classes may be transferred from other institutions as category requirements.
   Category A: Social & Cognitive Bases
   PSY 304 Developmental Psychology
   PSY 307 Cognitive Psychology
   PSY 308 Social Psychology
   Category B: Biological Bases
   PSY 302 Psychology of Learning
   PSY 403 Physiological Psychology
   PSY 404 Sensation and Perception
   Category C: Applications
   PSY 310 Industrial and Organizational Psychology
   PSY 320 Human Factors
   PSY 345 Abnormal Psychology
   PSY 410 Health Psychology
   Category D: Quantitative and Integrative
   PSY 411 Tests and Measurement
   PSY 415 Intermediate Statistics
   PSY 439 History of Psychology
   PSY 452 Personality Theories & Theorists
5. BIO 121, 122, or 200 (3 semester hours).
6. Nine additional semester hours (three courses) from any of the psychology course offerings (including those listed under item 4 above).
7. Only six hours of individual study courses (PSY 380, 481, 491) will count toward the major.
8. Completion of Psychology Department senior assessment survey and standardized exam within the final semester at Bradley as an undergraduate.

Psychology Minor
To minor in psychology the student must complete a minimum of 18 hours which will include:

1. PSY 104 (with a grade of C or better)
2. One from the following core academic courses—
   PSY 302, 304, 307, 308, 345, 403, 404, 439;
3. Four other courses (12 semester hours) from the Psychology Department course offerings
4. Nine hours of psychology courses must be at the 300 level or above
   Student may not count both PSY 206 and PSY 207; and (b) individual study courses (PSY 380, 481, 491).
Course Descriptions

PSY 104 Principles of Psychology: Social Forces and Individual Behavior 3 hrs.
(General Ed. SF)
Impact of social forces and institutions on individual behavior; interaction between individual and social environment.

PSY 200 Evolutionary Psychology 3 hrs.
Fossil evidence for human evolution; impact of evolutionary history on the development of human behavior; how evolutionary theory can be applied to understanding human behavior in contemporary society. Prerequisites: PSY 104; or consent of instructor.

PSY 205 Quantitative Methods 3 hrs.
Introduction to applied statistical analysis: data reduction and representation; frequency distributions and their measures; probability; sampling theory; tests of significance. Not open to non-majors with credit in QM 262, QM 263, or MTH 111. Prerequisite: 3 hours of college mathematics or consent of instructor.

PSY 206 Behavior Analysis in Perspective 3 hrs.
Principles of operant psychology applied to human behavior, with psychoanalysis and other systems presented for contrast and historical context. Prerequisites: PSY 104.

PSY 207 Analysis of Behavior 4 hrs.
Environmental factors applied to specification and understanding of behavior. Laboratory work with animals. Prerequisite: PSY 104.

PSY 245 Personality and Adjustment 3 hrs.
Human adjustment and factors in mental health. Prerequisite: PSY 104.

PSY 280 Psychology of Religion 3 hrs.
An overview of both theory and method in the psychological study of religion. Emphasis will be on understanding the biological and psychological underpinnings of religious belief, behavior, and experience. Cross listed as RLS 280. Prerequisite: PSY 104.

PSY 300 Psychology of Women (General Ed. CD) 3 hrs.
Women and their behavior: influence of psychological, social, and biological factors. Prerequisite: PSY 104.

PSY 302 Psychology of Learning 3 hrs.
Variables and conditions that affect the learning process; theories of learning. Prerequisite: PSY 104.

PSY 304 Developmental Psychology 3 hrs.
Mental, physical, and social development from birth to adulthood. Prerequisite: PSY 104.

PSY 306 Experimental Psychology 4 hrs.
Basic principles of research design and interpretation; emphasis on experimental method. Laboratory work in human learning. Prerequisite: PSY 205 or consent of instructor.

PSY 307 Cognitive Psychology 3 hrs.
Attention, memory, language use, problem solving, and artificial intelligence. Prerequisite: PSY 104.

PSY 308 Social Psychology 3 hrs.
Theories, research finding, and methods of social psychology. Topics include person perception, attitude change, interpersonal attraction, aggression, competition, group processes, and leadership. Prerequisite: PSY 104 or equivalent.

PSY 310 Industrial and Organizational Psychology 3 hrs.
Job analysis, psychological testing, interviewing, performance appraisal, employment law, leadership, motivation, training, job satisfaction, organizational theory, and research methods. Prerequisites: PSY 104; PSY 205 or equivalent.

PSY 314 Adult Development and Aging 3 hrs.
Introduction to conceptual issues, research methods, and available data in adult development and aging. Prerequisite: PSY 104.

PSY 320 Human Factors Psychology 3 hrs.
Introduction to psychological concepts and methods relevant to human-machine system design. Emphasis on issues related to human sensory, perceptual, cognitive, and motor performance. Survey of current areas of application. Prerequisites: PSY 104; PSY 205 or equivalent.

PSY 334 Motivation and Emotion 3 hrs.
Current theory and research in motivation and emotion. Prerequisite: 6 hours of psychology.

PSY 345 Abnormal Psychology 3 hrs.
Psychological disorders of adulthood, including psychotic, affective, anxiety, substance-related, and personality disorders. Current knowledge of symptoms, prevalence, course, etiology, treatment, and prevention. Prerequisite: 6 hours of psychology or consent of instructor.

PSY 380 Undergraduate Practicum 1-3 hrs.
Supervised work in applied settings such as mental health clinics, preschool classrooms, and counseling centers; qualified students may assist in psychology laboratory courses. May be repeated for maximum of 6 hours credit. Prerequisites for each section: 01, Child Study Center, PSY 304; 02, Classroom Assistance, PSY 206 or 207; 03, Community Agency, junior standing in psychology and consent of instructor.

PSY 400 Honors Research 3 hrs.
Completion of an honors thesis proposal in psychology. Topics include preparing a literature review, design and methods in psychology, hypothesis testing using statistical analyses,
ethics in research, and professional issues pertaining to psychological research. Prerequisites: PSY 306; junior standing; honors program participant or instructor consent.

**PSY 402 Human Sexuality** 3 hrs.
Current knowledge concerning human sexuality. Prerequisite: 6 hours of psychology or consent of instructor.

**PSY 403 Physiological Psychology** 3 hrs.
Physiological bases of behavior; emphasis on the neural structure and functional concomitants of receptor and effector processes, motivation, emotion, and learning. Prerequisites: 6 hours of psychology; 3 hours of biology or consent of instructor.

**PSY 404 Sensation and Perception** 3 hrs.
Physiology of the senses; processes by which sensory stimulation produces perceptual experiences. Prerequisites: 6 hours of psychology; 6 hours of biology; or consent of instructor.

**PSY 405 Issues in Applied Psychology** 1-3 hrs.
Study of special issues related to applied psychology, which may vary each time the course is offered. Topic stated in current Schedule of Classes. May be repeated under a different topic for a maximum of 6 hours credit. Prerequisite: 9 hrs. of psychology.

**PSY 406 Issues in Theoretical Psychology** 1-3 hrs.
Study of special issues related to theoretical and experimental psychology, which may vary each time the course is offered. Topic stated in current Schedule of Classes. May be repeated under different topics for a maximum of 6 hours of credit. Prerequisites: 9 hours of psychology or consent of the instructor.

**PSY 410 Health Psychology** 3 hrs.
Biological, psychological, and social interactions that influence an individual's state of health and illness. Stress, pain, cardiovascular risk, cancer, chronic illness, addictive behaviors. Prerequisites: 6 hours of psychology and 3 hours of biology.

**PSY 411 Tests and Measurement** 3 hrs.
Types of psychological tests, psychometric properties of tests, development and analysis of test items. Prerequisites: PSY 205 or equivalent; junior/senior standing.

**PSY 414 Cognitive Development** 3 hrs.
Provides an overview of cognitive change during childhood. Theoretical perspectives and research findings in major areas such as infant cognition, memory, language, concept formation, number, problem-solving, and social cognition. Applied issues pertaining to developmental disabilities and education will also be considered. Prerequisite: PSY 304 or ETE 225; 9 hours of psychology.

**PSY 415 Intermediate Statistics for Psychology** 3 hrs.
Conceptual foundations of hypothesis testing, introduction to meta-analysis and its procedures, exploration of multiple regression/correlation and related applications such as factor analysis. Prerequisite: PSY 205 or MTH 111 or QM 262 or equivalent.

**PSY 439 History of Psychology** 3 hrs.
Conceptual origins, problems and controversies, and ideas that gave rise to modern psychology. Prerequisite: 15 hours of psychology or consent of instructor.

**PSY 442 Child Psychopathology** 3 hrs.
Psychological disturbances of childhood, including mental retardation, autism, depression, anxiety, conduct disorder, and attention deficit disorders. Current knowledge of symptoms, prevalence, course, etiology, treatment, and prevention. Prerequisites: PSY 304 or equivalent; PSY 345 or equivalent.

**PSY 444 Clinical Psychology** 3 hrs.
Issues in psychological assessment and psychotherapy, with an emphasis on empirical support of theories, techniques, and outcomes. Prerequisites: PSY 205 or equivalent; PSY 345 or equivalent.

**PSY 452 Personality Theories & Theorists** 3 hrs.
Comprehensive survey of views on structure and function of personality, contemporary research, and methods of assessment. Prerequisites: PSY 345 or consent of instructor.

**PSY 481 Reading** 1-3 hrs.
Directed reading by qualified students, with faculty guidance. May be repeated for a maximum of 6 hours credit. Prerequisite: consent of instructor.

**PSY 491 Research** 1-3 hrs.
Directed research by qualified students, with faculty guidance. May be repeated for a maximum of 6 hours credit. Prerequisite: consent of instructor.
Russian and East European Studies Program

COORDINATING COMMITTEE  Bukowski (International Studies) Chair; Gorin (Sociology); Rubash (Finance and Quantitative Methods); Dannehl (Political Science).

The goal of the Russian and East European studies minor is to provide students with an understanding of the political, social, economic, and cultural forces that characterize this region. The minor requires a broad, cross-disciplinary approach with the intention of imparting to the student an appreciation of the unique qualities of the region. This minor is not designed to encourage concentration on a single country or culture, but it may prepare the student for such an endeavor in future studies.

A key requirement of this minor is the completion of a semester of Bradley-directed study abroad in either Russia or the Central or East European region. Bradley offers various programs to these destinations. The student should see the Study Abroad Office, 325 Caterpillar Global Communications Center, for a current listing. The study abroad requirement is a key element of the minor due to the special cultural, social, and linguistic character of the region. A firm understanding of the region is broadly enhanced by firsthand experience.

Minor in Russian and East European Studies

Curriculum and Requirements
Students are required to complete an appropriate program of study abroad experience approved by the faculty coordinating committee and designated as “Bradley directed” by the Study Abroad Office.

Prior to study abroad, students must meet the requirements of the selected study abroad program. These requirements vary from program to program and over time. The student should inquire at the Study Abroad Office for specific requirements.

Students shall choose courses (see list) and study abroad, in consultation with an advisor for this minor, that deal with history, politics, arts, etc. specific to the culture of the societies of Eastern Europe and Russia.

At least 18 semester hours are required for this minor, including a minimum of 9 junior-senior hours to be completed in approved study abroad courses that deal with the social, economic, and cultural aspects of the area, and a minimum of 6 hours to be completed in residence at Bradley. With the exception of language courses, all courses taken in any of the designated study abroad programs will transfer back to Bradley at the junior-senior level. The transfer of all study abroad credits is governed by Bradley study abroad guidelines.

Course hours toward the minor can be taken from the following approved list:
ECO 345 Comparative Economic Systems
HIS 103 Non-Western Civilizations: Russian History
HIS 338 Russia Since 1917
IS 331 European Nations in International Affairs
IS 353 Russian Foreign Policy
IS 355 Imperial Russia
IS 359 Russo-Chinese Relations
IS 431 East European Systems
Social Informatics Program

FACULTY COORDINATING COMMITTEE Salamini (Sociology) Chair; Nikolopoulos (Computer Science and Information Systems); Kasch (Communication).

The departments of communication, computer science and information systems, and sociology offer an interdisciplinary minor in social informatics. This minor introduces students to the use of the Internet and the World Wide Web as a tool of research. It systematically analyzes the social aspects of computerization, including the roles of information technology in social and organizational change, the uses of information technologies in social contexts, and the ways that the social organization of information technologies is influenced by social forces and social practices.

The social informatics minor is designed with the following objectives:

1. to provide students with the conceptual tools and strategies to critically analyze the new technologies and the impact of computerization on society, human interaction, and the human psyche;
2. to teach students how to utilize the new technologies for academic study and research as well as how to format new ideas and research projects electronically in a textual, hypertextual, and multimedia format;
3. to involve students individually or on a team in creative projects that use the World Wide Web.

Requirements

Students electing to minor in social informatics will take 18 hours of coursework in the departments of computer science and information systems, communication, and sociology, as follows:

A. Core courses ..........................................................9 hrs. (choose three)
   COM 399 Communication in Computer-mediated Environments
   CIS 300 Computers and Society
   SOC 421 Culture, Identity, and Cyberspace
   SOC 325 Science, Technology and Modernity

B. Electives ...........................................................3 hrs. (choose one)
   MM 213 Basic Multimedia Authoring
   CS 343 Data Communication and Communication Networks
   CS 500 JAVA Programming and Web Design

C. Individual Projects .............................................6 hrs. (6 hours)
   All students electing to minor in social informatics are required to participate in individual projects or collaborative team projects by enrolling in two directed study or independent study courses (three hours each) offered by the three departments and approved by members of the coordinating committee.
Social Studies –
Secondary Education

FACULTY COORDINATING COMMITTEE  Scott (Economics), Robertson (History), Aspin (Political Science), Salamini (Sociology).

The major in social studies – secondary education is an interdepartmental program of the faculties of economics, history, political science, and sociology with the cooperation of the Department of Teacher Education.

Successful completion of this program will allow graduates to teach high school economics, United States history, world history, civics or political science, and sociology.

In addition to University requirements, College of Liberal Arts and Sciences requirements, College of Education and Health Sciences requirements, and State of Illinois teacher certification requirements, students must complete 45 semester hours of social studies as described below.

Economics Requirements
ECO 100 Introduction to Economics or
ECO 221 Principles of Microeconomics ........................................3 hrs.
ECO 222 Principles of Macroeconomics .......................................3 hrs.
Economics Elective ........................................................................3 hrs.
Select from ECO 310, 313, 325, 345, 351, 391, 444 or other course approved by advisor.

United States History Requirements
HIS 203 United States History to 1877 ...........................................3 hrs.
HIS 204 United States History Since 1877 .................................3 hrs.
History Elective ..............................................................................3 hrs.
Select from HIS 300 to 313

World History Requirements
HIS 103 Russian History or
HIS 104 Non-Western Civilization: The Middle East Since Muhammad or
HIS 105 Non-Western Civilization: Latin America or
HIS 107 Modern Japan .................................................................3 hrs.
History Electives ...........................................................................6 hrs.
Select two from HIS 314, 320 to 340, 342, 345, 346, 375, 382, 385. (One of these two courses must be either HIS 336 or 337.)

Political Science Requirements
PLS 105 Introduction to American Government .......................3 hrs.
Political Science Electives ...............................................................6 hrs.
Select two from PLS 202, 301, 310, 311, 360, 419, 422, 440, 459, 460, 494

Sociology Requirements
SOC 100 The Sociological Perspective .......................................3 hrs.
Sociology Electives .....................................................................6 hrs.
Select two from SOC 310 to 314, 332, 341, 342, 343
Note: Social Work courses are not acceptable

Professional Education Requirements
To be certified to teach in the State of Illinois, students must complete the professional education component specified by the Department of Teacher Education in the College of Education and Health Sciences. These requirements include a minimum of 34 semester hours in education courses as follows:
ETE 115 Schools and Schooling in American Society ..................3 hrs.
ETE 116 Field Experience ............................................................1 hr.
ETE 225 Human Development ......................................................4 hrs.
ETE 280 Exploring Diversity: Learners, Families and Communities .................................................................................3 hrs.
ETE 342 Guiding Learners and Developing Classroom Communities .................................................................................3 hrs.
ETE 360 Teaching Reading in the Content Field .........................3 hrs.
ETE 370 General Secondary Methods I ......................................3 hrs.
ETE 371 General Secondary Methods II .....................................3 hrs.
ETE 375 Methods of Teaching Secondary
Social Studies ..................................................................................2 hrs.
ETE 490 Student Teaching Professional Portfolio ......................1 hr.
ETE 499 Student Teaching in the Secondary School .................10 hrs.
Department of Sociology and Social Work

FACULTY  Professor Salamini; Associate Professors Crawford (chair), Hogan; Assistant Professors Zant; Temporary Assistant Professor Wiebold.

The Department of Sociology offers a variety of courses useful to students with diverse professional goals. Sociology is a popular major for students planning careers in such professions as law, business, journalism, health care, education, politics, social work, or public administration. It provides a solid body of knowledge on the nature and problems of human relations and a distinctive way of looking at the world.

The courses offer a range of methodologies and research techniques which can be applied in a variety of fields such as administration, criminal justice, health care, counseling, and social work. In addition, exposure to theoretical and methodological issues and to comparative, historical, and critical analyses provides those students who want to pursue graduate work with a strong academic background.

The department offers a major and a minor in sociology, and a major in social work. For social work major see Social Work Program.

Major in Sociology
A major in sociology consists of a minimum of 30 semester hours in sociology including the following required core courses:

SOC 100 The Sociological Perspective
SOC 240 Research Methods
SOC 320 Social Theory or SOC 420 Critical Theory

At least 15 of the 30 required hours must be at the 300 level or above. Only one internship course may apply towards the 30-hour requirement. A grade point average of 2.01 in all courses taken in the department is needed for graduation. Students may earn either a B.A. or B.S. degree in sociology.

Sociology majors are urged to consult with a department advisor each semester concerning class schedules.

Sociology Minor
The sociology minor requires a minimum of 15 hours as specified below:

1. SOC 100; SOC 240 or SOC 320
2. At least 9 of the 15 hours must be at the 300 level or above.
3. Minimum of 2.01 grade point average in courses taken for the minor.

The following courses in the Department meet University general education requirements: SOC 100, 300, 301, 302, 311, 312, 313, 314, 315, 321, 325, 326, 420.

Course Descriptions

SOC 100 The Sociological Perspective 3 hrs.  (Gen. Ed. SF)
Sociological insight into study of humans, society, and culture.

SOC 211 Contemporary Social Problems 3 hrs.
Sociological analysis of current social problems in the U.S.: poverty, racism, sexism, agism, medical care, the environment, population, urban disorganization, crime, juvenile delinquency, alcoholism, drug addiction, family disorganization, and mental illness. Use of different perspectives promotes a broad understanding of the study of social problems. Prerequisite: SOC 100 or consent of instructor.

SOC 240 Research Methods 3 hrs.
Social research methods: research design and models of observation, including single subject and program evaluation, quantitative and qualitative methods, sampling techniques, questionnaire construction, types of surveys, measurement problems, and data analysis. Prerequisite: SOC 100 or consent of instructor.

SOC 300 Cross-cultural Perspectives on Gender 3 hrs. (Gen. Ed. NW)
Examines the construction of gender in non-western societies, concentrating on the way gender shapes and is shaped by power relations in these societies. Prerequisite: SOC 100 or consent of instructor.

SOC 301 Peoples & Cultures of the Non-Western World 3 hrs. (Gen. Ed. NW)
Course examines modes of social organization and dimensions of culture worldwide. Students are introduced to the diversity of human cultures and to anthropological theories and methods through ethnographic examples drawn from a variety of non-Western cultures. The course focuses on processes and institutions of enculturation, including economic, kinship, religious, political, and aesthetic practices. It also examines cultural changes associated with globalization. Prerequisite: SOC 100 or consent of instructor.
SOC 302 Sociology of Diversity 3 hrs.
(Gen. Ed. CD)
Analyzes nature, forms, and problems of social “diversity” with emphasis on patterns of difference and commonality, advantage, and disadvantage in the area of race, ethnicity, class, gender, sexuality, and physical disability. A particular focus will be on ways inequalities in wealth, education, employment, health, the criminal justice system, popular culture, and the political process are reproduced and challenged in contemporary societies. Prerequisite: SOC 100 or instructor consent.

SOC 310 Sociology of the Family 3 hrs.
An examination of the American family, with two major areas of focus: the structural diversity of families within the U.S. and the ways in which family practices reflect, reproduce, or challenge society’s norms, values, and modes of social organization. Prerequisites: SOC 100 or instructor consent.

SOC 311 Comparative Family Systems 3 hrs.
(Gen. Ed. NW)
Comparative study of non-Western family systems, with a focus on cross-cultural differences and the potential conflicts of migration. Varying focus on families of Asia, Africa, and the Middle East. Prerequisite: SOC 100 or instructor consent.

SOC 312 Social Inequality 3 hrs.
(General Ed. SF)
Inequality in income, wealth, prestige, and power. Theories explaining roots of and changes in inequality. Emphasis on the U.S.; variations in the extent and forms of inequality across different nations. Prerequisite: SOC 100 or consent of instructor.

SOC 313 Race, Ethnicity, & Power 3 hrs.
(General Ed. CD, SF)
Analysis of dominant-minority group relations. The emergence and dynamic of racism. Exploration of the experience of various ethnic “racial” groups.

SOC 314 Native Americans 3 hrs.
(General Ed. CD, NW)
Socio-historical analysis of the experience of Native Americans spanning the last 500 years. Focus on a variety of stereotypes and misconceptions regarding native Americans.

SOC 315 Gender and Society 3 hrs.
(General Ed. CD, SF)
An examination of gender as a system of stratification, as a social construction, and as a system of meaning which changes trans-historically and differs cross-culturally. Focus on structural and interactional aspects of gender inequality, as well as the relationship between gender and other social hierarchies, including class, race, ethnicity, religion, and sexuality. Prerequisite: SOC 100 or instructor consent.

SOC 316 Sociology of Work and Occupations 3 hrs.
The organization of work, occupational processes, and experiences of workers with a focus on the manufacturing industry and the impact of technology on the structure of work; the rise of the service sector; the emergence of temporary and contract work; professions and professionalization; workplace inequality; and the intersection of gender, family, and work. Prerequisite: SOC 100 or consent of instructor.

SOC 320 Social Theory 3 hrs.
Development of contemporary social thought from its Euro-American past. Emphasis on contemporary social theory and its major strands in American sociology. Prerequisite: SOC 100 or consent of instructor.

SOC 321 Individual and Society 3 hrs.
(General Ed. HP)
Various philosophical conceptions of the relationship between the individual and social order; nature and status of individuality in the modern world. Emphasis on critical evaluation of influential systems of thought: Marxism, phenomenology, and critical theory. Prerequisite: junior standing or consent of instructor.

SOC 322 Self and Social Interaction 3 hrs.
Focus on relationship between individuals and the broader society, the formation of personality, and group influences on human perception and behavior. Prerequisite: SOC 100 or instructor consent.

SOC 324 Sociology of Religion 3 hrs.
Analysis of relationship between religion and social structures; emphasis on anthropological and social context of the origin of religion, and relationship of religion to contemporary industrial societies. Prerequisite: SOC 100 or consent of instructor.

SOC 325 Science, Technology, and Modernity 3 hrs.
(General Ed. SF)
Analysis of the impact of science and technology on society and culture, the promises and threats of the growth of science and technology, as well as the ethical and social issues raised by technological progress. Prerequisite: SOC 100 or consent of instructor.

SOC 326 Sociology of Globalization 3 hrs.
(General Ed. SF)
Analysis of the process of global integration and its impact on communities, social institutions, and culture. Emphasis on theories of social change and social conflict over the nature and pace of globalization and its impact on non-Western societies. Focus on social class, ethnicity, gender, media, religion, the environment, and social problems confronting non-Western Societies. Prerequisite: SOC 100 or consent of instructor.
SOC 331 Correctional Policies and Society 3 hrs.
Analysis of theoretical and practical aspects of corrections, concepts of punishment and treatment, and their variations in practice. Includes analysis and evaluation of specific alternatives: prisons, probation, treatment centers, and sentencing. Prerequisite: SOC 100.

SOC 332 Juvenile Delinquency 3 hrs.
Analysis of the nature and origin of juvenile delinquency within an historical and theoretical context with emphasis on causation of delinquency and evaluation of different responses to it. Prerequisite: SOC 100.

SOC 333 Sociology of Violence 3 hrs.
Sociological analysis of the concept and nature of violence in a macro and micro setting, its various manifestations, and evaluation of responses to it. Prerequisite: SOC 100.

SOC 334 Crime and Society 3 hrs.
Analysis of the concept and nature of crime, the relationship between social structures, social institutions, and crime with a focus on social forces and social controls involved in the creation of crime. Prerequisite: SOC 100.

SOC 340 Urban Life and Culture 3 hrs.
Examination of past and present population trends within the United States including fertility, mortality, immigration, and urbanization. Application of classic and contemporary theoretical perspectives to current patterns of urban development, with an emphasis on the spatial structure of cities, the social and economic characteristics of urban populations, and the impact of structural environmental characteristics on perception and behavior. Discussion of current social issues associated with urban developments (e.g., poverty and discrimination) and their implications for urban policy and planning. Prerequisite: SOC 100.

SOC 341 Medical Sociology 3 hrs.
Application of a critical perspective to the institution of medicine. Focus on epidemiology, the social construction of illness, and current healthcare trends. Prerequisite: SOC 100.

SOC 342 Social Policy 3 hrs.
Focuses on the major institutions of social structure, such as education, family, government, healthcare, work, and the legal system. Investigates why social policies are developed, how social policy is implemented, and the direct and indirect effects of policy. Prerequisite: SOC 100 or consent of instructor.

SOC 343 Sociology of Mental Health 3 hrs.
Emphasis on social, cultural, and political factors involved in the definition and control of mental illness. Topics include labeling theory, the impact of status characteristics and social relationships on levels of stress, and legal and ethical issues associated with current modes of treatment. Prerequisite: SOC 100 or consent of instructor.

SOC 390 Topics in Sociology 3 hrs.
Topics of special interest which may vary each time course is offered. Topic stated in current Schedule of Classes. May be repeated under a different topic for maximum of 9 hrs. credit.

SOC 391, 392 Internship in Applied Sociology 3 hrs.
Supervised work in applied settings; study of practical problems from the perspective of the discipline. Prerequisites: prior arrangement, consent of Department Chair. SOC 391 is prerequisite for SOC 392.

SOC 420 Critical Theory 3 hrs.
(Gen. Ed. HP)
Analysis of major intellectual traditions in sociology with a focus on critiques of social and cultural forms of domination and analysis of types of emancipatory and life-style politics. Prerequisite: SOC 100 or consent of instructor.

SOC 421 Culture, Identity, and Cyberspace 3 hrs.
The contemporary revolution in human interaction via computer. The social construction of virtual communities and the new culture, institutions, and norms emerging in the experience of cyberspace. New concepts of space, time, and social order; electronic subjectivity and anonymity; new representations of gender, race, and class; emergence of new languages of expression; and the revolutionary impact of hypertext and multimedia technologies on human thinking and learning. Prerequisite: junior/senior standing.

SOC 430 Perspectives on Deviance 3 hrs.
Analysis of the concept and nature of deviance and its various forms, with emphasis on various theoretical perspectives on nature and causation of deviance. Prerequisite: SOC 100.

SOC 490 Individual Study in Sociology 1-3 hrs.
Special study on topics with faculty supervision. For sociology majors; non-majors require approval of the Department Chair. Prerequisite: consent of Department Chair.

SOC 499 Honors Colloquium 3 hrs.
Special study or projects with faculty supervision. Oral presentation. Prerequisite: 3.5 GPA in sociology and consent of Department Chair.

SOC 571 Field Studies 1-3 hrs.
Individual research. Prerequisite: senior or graduate standing and consent of Department Chair.
Social Work Program

FACULTY  Associate Professor Evens (Director); Instructors Amos (Field Coordinator), Moody.

The purpose of the social work major is to prepare students for beginning practice in social work and to provide an educational foundation for students planning to pursue graduate studies in social work or other helping professions. The major provides a well-rounded academic and practice background in the generalist social work practice model. The social work program is accredited by the Council on Social Work Education.

The curriculum requires majors to complete 72 credit hours, including 21 hours of liberal arts requirements, 45 hours of social work requirements, and 6 hours of electives. A student may declare a social work major when admitted to Bradley; however, in order to progress to the professional practice component of the curriculum, a formal admission is required during the junior year.

The professional practice component includes practice courses and a field practicum. Students will complete a minimum of 420 field hours in an approved community agency.

It is important for students to consult with their social work advisor each semester to ensure that the requirements for the major are scheduled in the proper sequence. An overall grade point average of 2.25 is needed to graduate with a B.A. or B.S. in social work. A student must attain at least a “C” in all required social work courses.

Requirements

Liberal Arts Courses (21 hrs.)
MTH 111 Elementary Statistics or
   PSY 205 Quantitative Methods
ECO 100 Intro to Economics or
   ECO 221 Microeconomics and
   ECO 222 Macroeconomics
PLS 105 Introduction to American Government
SOC 313 Race, Ethnicity, and Power or
    ETE 280 Exploring Diversity: Learners, Families, and Communities
SOC 100 The Sociological Perspective
BIO 121 Life Science I
PSY 104 Principles of Psychology

Social Work Core Requirements (45 hrs.)

Social Welfare Policy and Services ......................6 hrs.
SW 250 Introduction to Social Welfare
SW 355 Social Welfare Policy

Human Behavior & the Social Environment ......... 12 hrs.
SOC 310 Sociology of the Family
PSY 445 Abnormal Psychology
SW 354 Human Behavior in the Social Environment I
SW 358 Human Behavior and the Social Environment II

Research .................................................................3 hrs.
SW 260 Research Methods

Social Work Practice ............................................. 12 hrs.
SW 350 Foundation for Social Work Practice
SW 351, 352 Social Work Practice I, II
SW 353 Social Work Practice III

Field Practicum.................................................... 12 hrs.
SW 393 Social Work Practicum
SW 395 Social Work Seminar

Electives (6 hrs.)
SW 310 Child Welfare I
SW 320 Child Welfare II
SW 356 Topics in Social Work
SW 490 Individual Study in Social Work
SW 499 Honors Colloquium
SOC 211 Contemporary Social Problems
SOC 311 Comparative Family Systems
SOC 312 Social Inequality
SOC 314 Native Americans
SOC 315 Gender and Society
SOC 321 Individual and Society
SOC 332 Juvenile Delinquency
SOC 333 Sociology of Violence
SOC 341 Medical Sociology
SOC 343 Sociology of Mental Health
AAS 200 Intro. to African-American Studies
NUR 221 Substance Abuse
PSY 402 Human Sexuality

Students should consult the Social Work Student Handbook for recommendations regarding general education selections, electives, and BA/BS requirements, and for sample 4-year and 2-year course plans.

Course Descriptions

SW 250 Introduction to Social Welfare 3 hrs.
Overview of historical development and contemporary forces shaping the social welfare system in the U.S. Examines social policies, social conditions affecting vulnerable populations, and service delivery systems in which social work is practiced. Includes community agency contact.

SW 260 Research Methods 3 hrs.
Social research methods: research design and models of observation, including single subject and program evaluation, quantitative and qualitative methods, sampling techniques, questionnaire construction, types of surveys, measurement problems, and data analysis. Prerequisites: Sociology or social work major or consent of instructor; MTH 111 or PSY 205.
SW 310  Child Welfare I  3 hrs.
Examines the theory and knowledge associated with practice in the field of child welfare. This course covers the areas of policy, normative child development, disruptions in child development, and the continuum of services for children in society.

Historical development of social work. Introduction of generalist social work practice; systems perspective; knowledge, skills, values, and ethics required for practice; communication skills and the helping relationship as foundation for the problem-solving process. Overview of fields of practice. Includes required volunteer experience. Prerequisite: SW 250.

SW 351  Social Work Practice I  3 hrs.
Assessment, planning, intervention, evaluation, termination, and follow-up phases of the problem-solving process. Students develop interviewing skills and apply knowledge of social systems, human development, diversity, and ethics with focus on the micro level. Prerequisite: SW 350, social work major or consent of social work program director.

SW 352  Social Work Practice II  3 hrs.
Generalist practice with focus on families and groups as well as individuals in group contexts. Includes required volunteer experience in group setting. Prerequisites: SW 350; social work major or consent of social work program director.

SW 353  Social Work Practice III  3 hrs.
Generalist practice with focus on organizations, communities, and large social systems. Assessment, planning, intervention, and evaluation skills for macro-level practice. Emphasis on issues of diversity, discrimination, and oppression. Prerequisites: SW 350; social work major or consent of social work program director.

SW 354  Human Behavior in the Social Environment I  3 hrs.
Current research and theory concerning interaction of environment with individual behavior. Life span development, strengths, approach, and issues of diversity as influences on individual development.

SW 355  Social Welfare Policy  3 hrs.
Analysis of social welfare policy from the social work perspective. Impact of social policy on recipients and constituents of social welfare programs. Institutional responses to social problems, social justice, and human needs. Analysis and evaluation of policy at the organizational, community, and legislative levels. Prerequisites: ECO 100; PLS 105; SW 250.

SW 356  Topics in Social Work  3 hrs.
Topics of special interest which may vary each time the course is offered. Topic stated in current Schedule of Classes. May be repeated under a different topic for maximum of 6 hours credit.

SW 358  Human Behavior in the Social Environment II  3 hrs.
Current research and theory concerning interaction of environment with families, groups, organizations, and communities. Social and cultural causes and impact of diversity, discrimination, and oppression. Prerequisite: SW 354.

SW 393  Social Work Practicum  9 hrs.
Supervised experience in an approved community agency; use of knowledge and skills common to generalist practice; 420 field hours required. Pass/fail. Prerequisites: SW 351; social work major. Corequisite: SW 395.

SW 395  Social Work Seminar  3 hrs.
Seminar that integrates theory and principles learned in academic courses with field and practice experience. Prerequisites: SW 351; social work major. Corequisite: SW 393.

SW 490  Individual Study in Social Work  1-3 hrs.
Special study on topics with faculty supervision. For social work majors; non-majors require approval of Department Chair. May be repeated under a different topic up to a maximum of 3 credit hours. Prerequisite: consent of director of social work program.

SW 499  Honors Colloquium  3 hrs.
Special study or project conducted under faculty supervision. Oral presentation before a faculty committee. Prerequisite: 3.5 GPA in social work major and consent of department chair.
Western Civilization

DIRECTOR Jones (History).

CIV 100 Western Civilization 3 hrs. (Gen. Ed. WC)
Required for all students. Team taught by instructors from a variety of disciplines. Emphasis on conceptual approach to intellectual, cultural, political, economic, social, and technological issues that have formed the spirit of the various ages from ancient Greece to the present. Readings from original sources; lecture and small discussion groups.

CIV 101 Western Civilization to 1600 3 hrs. (Gen. Ed. WC)
Emphasis on conceptual approach to intellectual, cultural, political, economic, social, and technological issues that have formed the spirit of the various ages from classical Greece to 1600.

CIV 102 Western Civilization Since 1600 3 hrs. (Gen. Ed. WC)
Emphasis on conceptual approach to intellectual, cultural, political, economic, social, and technological issues that have formed the spirit of the various ages from 1600 to present.

CIV 111, 112 Unified Composition and Western Civilization: I, II 3 hrs. each (Gen. Ed. C1, Gen. Ed. WC)
Integration of ENG 101 and CIV 100. Emphasis on clear and effective writing using subject matter of Western Civilization. Team taught by faculty from a variety of disciplines. Students must take both semesters (111 and 112) to satisfy University requirements in both composition and Western Civilization. If unable to take both semesters, students must take CIV 100, 101, or 102 and ENG 101.
Western European Studies Program

FACULTY COORDINATING COMMITTEE Gobeyn (Political Science); Jones (History); Walker (Foreign Languages), Chair.

The Western European studies minor is designed to provide knowledge of the region, past and present. The purpose of the minor is to expose students to the broad spectrum of economic, political, social, and cultural forces which have given in the past and continue to give shape today to the development of contemporary Western Europe society and the European Community. It is meant to provide a centralizing focus and coherence to European studies, while proceeding in an interdisciplinary and cross-disciplinary approach. A singular concentration on a particular nation-state, national culture, or historic era is not the intent of the program. The minor should supplement or complement a student’s major, and help support career or graduate school objectives. To ensure coherence, students will choose part of their course work from a list of core subjects. A senior-level capstone course will provide the opportunity to synthesize and integrate perspectives and insights gained from core and elective course work.

Minor in Western European Studies
Curriculum and Requirements

Prerequisite course:
CIV 100 Western Civilization or CIV 111, 112 Unified Composition and Western Civilization I, II. Any transfer work must be a substantial equivalency.

Foreign Languages:
Successful completion of one of the following: FLF, FLG, FLS 202 Intermediate French, German, Spanish or equivalent. It is recommended that students complete the foreign language requirement as early as possible.

In addition to the foreign language requirement, the minor requires 18 hours total. Students may count toward the minor a maximum of 3 hours in their major, that is, from the courses in their major listed as part of the minor. Students may count toward the minor a maximum of 6 hours in courses from any given department. Students must complete a minimum of 9 junior-senior hours in the minor.

Course hours for the minor must be distributed in the following manner:

Social Sciences ................................................................. 6
One 3-hour core course chosen from the following:
IS 330, 331 European Nations in International Affairs
PLS 304 Governments of West Europe
One 3-hour elective chosen from the following:
ECO 444
HIS 320, 322, 323, 325, 329, 341, 342, 375, 382
IS 250, 330*, 331*
PLS 304*
SOC 320
* Elective if not taken as part of core

Humanities ........................................................................ 6
One 3-hour core course from the following:
PHL/PLS 307 Classical Political Philosophy
PHL/PLS 308 Modern Political Philosophy
One 3-hour elective from the following list:
ENG 127, 237, 239, 341, 344, 347, 358, 361, 363
FLF 316, 325
FLG 316, 321, 325
FLS 316
PHL 300, 304, 306, 311
PHL/PLS 307*, 308*
* Elective if not taken as part of core.

Fine Arts ........................................................................ 3
One 3-hour core course from the following:
ART 140 Survey of Art History I
MUS 203 History of Music

Senior Capstone Course..................................................... 3
HIS 340 Contemporary Europe

Total Hours ..................................................................... 18
Women’s Studies
Program

FACULTY  Robertson (Director), Koehler (assistant), Craig, Frye, Hogan, Linn, A. Scott

Women’s studies is an interdisciplinary field of study which questions the traditional attitudes towards women and offers a new understanding of and perspectives on women. The primary objectives of women’s studies are:

1. to address past scholarly neglect of material by, for, and about women;
2. to increase and disseminate knowledge of the behaviors, experiences, and contributions of women in society;
3. to examine critically and evaluate the assumptions and theories held about women in society in the traditional disciplines, as well as current interdisciplinary approaches to the study of women;
4. to provide an expanded vision of women’s future roles and opportunities and foster an awareness of women’s existing abilities and potentials.

Minor in Women’s Studies

Required Courses (6 hours)

WMS 200 Introduction to Women’s Studies .........................3
WMS 400 Directed Research in Women’s Studies ..................3

Electives (9 hours)

ENG 129 African American Literature ................................................3
ENG 190 Women in Literature ..........................................................3
ENG 331 Studies in Women Writers ................................................3
NUR 219 Women and Health ............................................................3
PSY 300 Psychology of Women ........................................................3
HIS 304 Women in American History .............................................3
HIS 334 Women in Developing Nations ..........................................3
HIS 339 Women in Global Perspective ...........................................3
HIS 382 History of Women, Work, Family ......................................3
PLS 493 Seminar in Political Theory: Equality, Diversity, and Citizenship .........3
SOC 300 Cross-cultural Perspectives on Gender ..............................3
SOC 310 Sociology of the Family .....................................................3
SOC 311 Comparative Family Systems ...........................................3
SOC 313 Race, Ethnicity, and Power ...............................................3
SOC 315 Gender and Society .........................................................3

Course Descriptions

WMS 200  Introduction to Women’s Studies  3 hrs. (Gen. Ed. CD, SF)
Interdisciplinary course; reexamines traditional approaches to and offers new perspectives on roles, contributions, and identity of women as a group. The female body; sex differences; historical changes in women’s roles; women as members of minority, racial, ethnic, and sexual groups; changing economic, political, and social status of women in 20th century American society. Approved for General Education.

WMS 400  Directed Research in Women’s Studies  3 hrs.
Directed readings or research for a paper which analyzes, synthesizes, and interprets an area of women’s studies. Prerequisites: WMS 200; 9 hrs. of women’s studies elective courses; or consent of instructor.
The Graduate School

Since 1947 the Graduate School has focused upon master’s level education, emphasizing applied research and creativity within the context of coherent and innovative programs. In many disciplines, interdisciplinary and intercollegiate academic arrangements allow for scholarly investigations which are not generally available in the traditional master’s degree. In 2005, Bradley University introduced graduate certificate programs. These programs are narrower in scope than the degree programs, but are designed to fulfill many of the same needs. They are particularly designed for individuals wishing to enhance their work skills or change work emphasis. Detailed program descriptions may be found in the Graduate Catalog or on the Internet at bradley.edu/grad.

The University and its location offer broad learning opportunities. The Bradley Cullom-Davis Library, Information Resources and Technology, and extensive laboratories and studios provide students with opportunities for conducting research and creative productions. The graduate faculty of 172 full-time professors is complemented by lecturers and research personnel from off-campus. Bradley is located in Peoria, Illinois, a population center of 350,000. This area is characterized by an economically sound industrial complex contained within a highly productive agricultural region. The area provides unique resources for students of industry, art, business, science, healthcare, and education.

Students with undergraduate degrees often find that advanced education at the master’s or certificate level can be the entry point for new and better job opportunities. It can lead to further study and rewarding careers as university faculty, researchers, or scientists. In some fields, the master’s degree is necessary in order to obtain the professional credentials or recognition needed to be successful. The master’s degree and/or certificates can also help working professionals upgrade their skills, keep abreast of new knowledge in the field, or enhance their own personal development.

Bradley seniors who are within 6 semester hours of graduation, or who are registering for the semester during which they will complete their bachelor’s degree requirements, may register for graduate courses for graduate credit provided they also have a cumulative grade point average of 3.0 or greater. They must also have the approval of: 1) their undergraduate advisor, 2) the instructor of the course, who determines if the course is appropriate for graduate credit, and 3) the graduate program director/coordinator if the course is part of a graduate program, or the department chairperson if the department does not house a graduate program. A senior may not take more than 9 semester hours of courses for graduate credit while registering as a senior. These hours will not be counted toward the baccalaureate degree. The student must secure the approval signatures on the Request by a Senior to take Courses for Graduate Credit form and file it with the Registrar. Forms may be obtained from the Graduate School.

More detailed information on Graduate School programs and policies, as well as the Graduate Catalog and admission and academic forms, are available from the Graduate School, 200 Bradley Hall, (309) 677-2375, bugrad2@bradley.edu, or on the Internet at bradley.edu/grad.

Degrees
Bradley University offers the following graduate degrees:

**Graduate School Interdisciplinary Degree**

Professional Master of Arts in STEM Education ............... P.M.A.

Elementary Math, Science, and Technology Education

**Foster College of Business Administration**

Accounting ................................................................. M.S.A.

Business Administration .............................................. M.B.A.

Finance
Management
Marketing

Executive Master of Business Administration .......... M.B.A.

Quantitative Finance ..................................................... M.S.

**Slane College of Communication and Fine Arts**

Art ................................................................. M.A. and M.F.A.

Ceramics
Drawing/Illustration
Interdisciplinary Art Studies
Painting
Photography
Printmaking
Sculpture
Visual Communication & Design
College of Education and Health Sciences
Curriculum and Instruction ............................................ M.A.
Assessment
Early Childhood Education
Educational Technology
Gifted Education
Literacy and Reading
Science Education
Middle School Education
Multidisciplinary
Science Education
Special Education
Curriculum and Instruction—Learning Behavioral Specialist I
Additional endorsement options available:
Learning Behavior Specialist I Endorsement
Reading Endorsement
Middle Level Education Endorsement
Human Development Counseling .................................. M.A.
Community and Agency Counseling
School Counseling
Leadership in Educational Administration ................... M.A.
Leadership in Human Service Administration .............. M.A.
Nursing Administration .............................................. M.S.N.
Nursing-General ....................................................... M.S.N.
Nurse Administered Anesthesia .................................. M.S.N.
Physical Therapy ....................................................... D.P.T.

College of Engineering and Technology
Civil Engineering ....................................................... M.S.C.E.
Electrical Engineering .............................................. M.S.E.E.
Industrial Engineering ............................................. M.S.I.E.
Manufacturing Engineering .................................... M.S.M.F.E.
Mechanical Engineering ......................................... M.S.M.E.

College of Liberal Arts and Sciences
Biology ........................................................................ M.S.
Chemistry ..................................................................... M.S.
Computer Information Systems ................................ M.S.
Computer Science ................................................... M.S.
English ......................................................................... M.A.
Liberal Studies .......................................................... M.L.S.

Graduate Certificate Programs
Bradley University offers the following graduate certificate programs:

College of Education and Health Science
Certificate in Curriculum and Instruction .................. Cert.
Assessment
Early Childhood Education
Educational Technology
Gifted Education
Literacy and Reading
Middle School Education
Multidisciplinary
Science Education
Certificate in School Counseling .............................. Cert.
Post-Master's Certification in Educational Administration (Type 75) .......... Cert.
National Board Certified Teachers Fast Track Type 75 ... Cert.

Integrated Programs
Integrated degree programs offer students three major advantages: greater availability of financial aid, earlier guarantee of admission to the graduate program, and more flexibility in the sequencing of classes. The Graduate Catalog provides a complete description of each program's requirements.

BA/BS and MSA
The Department of Accounting offers an integrated Bachelor's (BA or BS) and Master of Science in Accounting degree. Admission to the program is available when students are initially admitted to Bradley University or during their junior year.

BA/BS and MS in Quantitative Finance
The Department of Finance and Quantitative Methods offers an integrated Bachelor's (BA or BS) and Master of Science degree in quantitative finance. Students will begin courses in the BS/BA-MSQF track of undergraduate courses when they are initially admitted to Bradley as freshmen, or by transferring from other majors, colleges in the university, or from other colleges and universities by application. These students must be subsequently admitted to the BS/BA-MSQF Program during their senior year (90 or more credit hours); provided they maintain at least an overall 3.0 grade point average. BS/BA-MSQF students are admitted as graduate students to the Graduate School subsequent to the completion of 124 undergraduate hours and the BS/BA-MSQF undergraduate track, provided they maintain at least an overall 3.0 GPA.
Administration

President
Joanne K. Glasser, B.A., J.D.

Administrative Assistant to the President,
René Mayginnes

Director of Athletics,
Kenneth E. Kavanagh, B.S., M.B.A
Administrative Assistant for Athletics,
Debra Hartness

Executive Athletic Director/ Sr. Woman Administrator,
Virnette House-Browning, B.S., M.A.

Senior Associate Athletic Dir./Compliance &
Financial Affairs, Craig Dahlquist, B.A., M.S.

Assistant Athletic Director/External Affairs,
John Searby, B.A., M.A.

Director for Braves Club,
Jeff Baldwin

Associate Athletic Director for Communications,
Bobby Parker, B.A.

Associate Director of Marketing, Mary Lou
Jannsen, B.S.

Assistant Athletic Director for Ticket Operations,
Rob Bogardus, B.A.

Assistant to the Athletic Director for Special
Projects, Jim DeRose, B.S., M.Ed.

Head Athletic Trainer, Marcus Ohnemus, B.S., M.S.

Head Men's Basketball Coach, Jim Les, B.S.

Head Women's Basketball Coach,
Paula Buscher, B.S., M.S.

Head Baseball Coach, Elvis Dominguez, B.A.

Head Men's & Women's Cross Country/Track
Coach, David Beauchem, B.S., M.S.

Head Men's Golf Coach, Jeff Roche, B.S.

Head Women's Golf Coach,
Robert Ryan, B.A., M.A., M.S.

Head Soccer Coach, Jim DeRose, B.S., M.Ed.

Head Softball Coach, Amy Hayes, B.S.

Head Strength and Conditioning Coach,
Ronnie Wright, B.A.

Head Men's Tennis Coach, Jesse Plote, B.S.

Head Women's Tennis Coach,
Scott Petersen, B.S., M.S.

Head Volleyball Coach, Sean Burdette, B.A.

Assistant Vice President for Communications,
Shelley Epstein, B.S.

Assistant Vice President for University Relations,
Kathy Fuller, B.A.

Director, Academic and Marketing
Publications, Laura McGowan, B.A., M.A.
Assistant Director, Academic
and Marketing Publications,
Danise Mantooth Jones, B.S.

Director, Alumni Publications,
Karen Crowley Metzinger, B.A., M.A.
Associate Director, Alumni Publications,
Nancy Ridgeway, B.A.
Assistant Director, Alumni Publications,
Justin Phelps, B.S.

Graphic Designer, Sarah Dukes, B.F.A.

Director, Graphic Design,
Thomas A. Gunter, B.A., M.A.

Senior Director, Public Relations,
M. Kathleen Conver, B.S.

Director, Web Communications,
Daniel Manson, B.D., M.S.

Director, Web Marketing, Communications,
James Crone, B.S.

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Director, Institutional Improvement,
Jennifer Gruening, B.A., M.A.

Interim Director, Office of Teaching Excellence and
Faculty Development,
Anika Bissahoyo, B.S., Ph.D.

Director, Equal Employment Opportunity
and Affirmative Action, Nena Peplow, B.S.

Interim Associate Provost for Research and Interim
Dean of the Graduate School,
Kurt Field, B.A., Ph.D.

Assistant Dean of the Graduate School,
Leslie Betz, B.A., M.B.A.

Executive Director, Division of Continuing
Education, Janet Lange, B.S., M.A.

Program and Marketing Director, Continuing
Education, Carla Rich Montez, B.S., M.Ed., M.P.A.
Vice President for Advancement

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Advancement Services Coordinator, Margaret Cook
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Director of Advancement, Chicago Regional Office, Vicki Sparks, B.A., C.F.R.E.
Senior Director of Development, Curt Leroy, B.S.
Senior Director of Development, Major and Planned Gifts, Director of Development, College of Education and Health Sciences, Elizabeth Adams, B.S.
Director of Development, Slane College of Communications and Fine Arts, John Matthews, B.S.
Executive Director, Alumni Relations, Lori Winters Fan, B.S.
Associate Director, Student and Young Alumni Programs, Julie Holmes, B.A.
Associate Director, Constituent Group Programs, Reggie Bustinza, B.A.

Vice President for Business Affairs

Gary Anna, B.S., C.P.A.

Administrative Assistant to the Vice President, Linda Guinn
Controller, Pratima Gandhi, B.S.

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Assistant Controller, General Accounting, Allyn Kosenko, B.A., M.S., C.P.A.
Business Systems Analyst, Ellen Keenan, B.S.
Purchasing/Accounts Payable Administrator, Diane Smith, A.A.S
Accounts Receivable Manager, Sandra Fay, B.S., M.S.
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Grant Accountant I, Lois Parkhurst
Grant Accountant II, Terrance Kenny, B.A., M.B.A.
Debit Card Analyst, Melinda Yepsen, B.S.
Director, Payroll, Marianne Rees
Assistant Director, Payroll, Rose Storts
Internal Auditor, Janis Lillard, B.B.A., C.P.A.
Director of Facilities Management, Ronald Doerzaph, B.C.E.
Utilities Supervisor, Leroy Neilson
Assistant Utilities Supervisor, Brian Maubach
General Services Supervisor, Gloria Arrington
Maintenance Supervisor, John Bockler
Grounds Supervisor, Stanley Glazier
Director, Custodial Services, Pat Dempsey, B.F.A.
Supervisor of Safety, Rollin Arnett, B.A.
Supervisor of Planning, Kimberly Green, B.S.
Assistant Project Manager—Interiors, Robin Landergren, B.S.
Assistant Project Manager—Construction, Jesse Staley, B.S.
Business Manager, Kenneth L. Goldin, B.S., M.A.
Director, Food Services, Ron Gibson
Director, Parking and Conferences, Charmin Hibbard
Supervisor, Michel Student Center, Tracy Anderson
Manager, Bookstore, Paul Kroenke
Chief, University Police, David A. Baer, B.S.
Director, Human Resources, Nena M. Peplow, B.S.
Personnel Administrator, Karen Sorrel, B.S.
Employee Benefit Administrator, Dayna Fico, M.S.

Director, Intramural and Recreational Sports, Michael Keup, B.S., M.S.
Director, Multicultural Student Services, Frances Jones, B.A., M.A.
Director, Student Activities, Michelle Taylor Whited, B.A., M.S.
Interim Executive Director, Center for Student Support Services, Barbara Carraway, B.A., M.A.
Director, Center for Learning Assistance, Deborah Fischer, B.S., Ed.D.
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Director, Lewis J. Burger Center for Student Leadership and Public Service, Sara O'Shea, B.S., M.A.
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Director, Career Development, Rick Smith, B.S., M.A., Ph.D.
Director, Employer Relations, Kelly Harris, B.S.
Director, Experiential Education, Sharon St. Germain, B.S.

Vice President for Student Affairs
Alan G. Galsky, B.S., M.A., Ph.D.

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Director of Admissions, Rodney San Jose, B.S.
Director of Admissions, Marketing & Communications, Tom Richmond, B.S.
Director, Operations, Joanne Otten, B.A.
Director, Transfer Admissions, Patricia Bower, B.S.

Executive Director, Center for Student Development & Health Services, Joyce Shotick, B.S., M.S., Ph.D.
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Director, Campus and Community Testing, Ken Harding, B.S., M.S.
Director of Counseling, Janine Donahue, B.S., M.D.
Director, Health Services, Jessica Higgs, M.D.
Director, Orientation and Advisement, David Trillizio, B.A., M.S.
Director, Wellness Programs, Melissa Sage-Bollenbach, B.S., M.S.

Executive Director, Center for Student Involvement, Gregory Kiloran, B.A., M.A.
Faculty

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