

College of Sciences

Douglas J. Klarup, Interim Dean
Michael Cornebise, Interim Associate Dean
Angie Rhoads, Assistant to the Dean
Mark Johnson, Assistant to the Dean
Jong Kim, Technology Support Specialist

Vision

The College of Sciences' vision is to be a 1st Choice for students seeking Baccalaureate and Masters' degrees in the Sciences.

The College of Sciences has approximately 2,300 students pursuing Baccalaureate degrees and 200 students pursuing Masters degrees. The faculty members are recognized experts in fields like Anatomy, Astronomy, Audiology, Autism, Biochemistry, Botany, Chemistry, Computer Science, Criminology & Criminal Justice, Ecology, Economics, Fisheries, Genetics, Geology, Geography, GIS, Herpetology, Mathematics, Microbiology, Nursing, Physics, Political Science, Psychology, Speech Pathology, Sociology, Sustainability, Water Pollution, Wildlife Ecology, and Zoology.

General Mission

The College of Sciences' mission is to provide undergraduates and graduate students with knowledge, skills, and experiences that enable them to go anywhere in the world as active, productive citizens.

Philosophy

The College of Sciences' philosophy is that students are best served by learning environments which are appropriately sized, well-planned, well-executed, and continuously improved upon.

Goals, Objectives, and Assessments

The College of Sciences' teaching and learning model includes a goal of working one-on-one with students in research and service projects. The college objectives include providing opportunities for students to learn and practice good Writing, Critical Thinking, Speaking, and Global Citizenship. The college assesses the achievement of its goals and objectives through on-going and systematic processes such as the examination and revision of curriculum and course materials and the evaluation of student learning as indicated on local and national tests and other outcomes such as presentations, competitions, employment, and acceptance into graduate or professional programs.

Department of Biological Sciences

Department Faculty

Gary Bulla, Interim Chairperson

Britto Nathan, Assistant Chairperson

Bollinger, E.; Bulla, G.; Canam, T.; Carlswald, B.; Chesnut, R.; Colombo, R.; Daniel, S.; Deppe, J.; Dust, H.; Effert, E.; Enstrom, P.; Fritz, A.; Hung, K.; Laursen, C.; Laursen, J.; Liu, Z.; Maia, A.; Meiners, S.; Mounce, S.; Nathan, B.; Oluoch, A.; Pederson, C.; Sehweil-Elmuti, N.; Switzer, P.; Tucker, G.; Yordanov, Y.

Department Telephone: 217.581.3126

Biological Sciences (B.S.)

Total Semester Hours required for the Degree: 120 semester hours

Major

Semester Hours required for the Biological Sciences Major: 72-75 semester hours

Core Requirements:

- BIO 1150 - Biology Forum. Credits: 1
- BIO 1500 - General Biology I. Credits: 4
- BIO 1550G - General Biology II. Credits: 4
- BIO 3120 - Molecular and Cellular Biology. Credits: 4
- BIO 3180 - Introduction to Ecology and Evolution. Credits: 4
- BIO 3200 - Genetics. Credits: 4
- BIO 2220 - Anatomy and Physiology II. Credits: 4
or
- BIO 3510 - Plant Physiology. Credits: 4
or
- BIO 3520 - Animal Physiology. Credits: 4
- CHM 1310G - General Chemistry I. Credits: 3
- CHM 1315G - General Chemistry Laboratory I. Credits: 1
- CHM 1410 - General Chemistry II. Credits: 3
- CHM 1415 - General Chemistry Laboratory II. Credits: 1
- MAT 2110G - Brief Calculus with Applications. Credits: 3
(See footnote *)
or
- MAT 1441G - Calculus and Analytic Geometry I. Credits: 5
(See footnote *)
- PHY 1151G - Principles of Physics I. Credits: 3
- PHY 1152G - Principles of Physics I Laboratory. Credits: 1
- PHY 1161 - Principles of Physics II. Credits: 3
- PHY 1162 - Principles of Physics II Laboratory. Credits: 1

AND

- CHM 2430 - Survey of Organic Chemistry. Credits: 3
- CHM 2435 - Survey of Organic Chemistry Laboratory. Credits: 1

OR

- CHM 2440 - Organic Chemistry I. Credits: 3
- CHM 2445 - Organic Chemistry Laboratory I. Credits: 1

AND

- BIO 4750 - Statistical Analysis of Scientific Data. Credits: 3
OR
- MAT 2250G - Elementary Statistics. Credits: 4

Electives:

Biological Sciences majors must also complete 21 sh of elective course work in Biological Sciences (with the exception of BIO 3400, BIO 4275, workshops, and courses designed for General Education with the exception of BIO 3888G) or Mathematics or Physical Sciences courses above 2000 (with the exception of general education and CHM 2310). A minimum of 15 sh must be taken in the Biological Sciences.

Footnotes:

*Students not prepared for this course will be required to take additional prerequisite math classes.

(Major GPA based on all biological sciences courses taken at EIU)

Biological Sciences: Environmental Biology Option (B.S.)

Total Semester Hours required for the Degree: 120 semester hours

Semester Hours required for the Biological Sciences Major- EVB Option: 80-83 semester hours

Core Requirements

Biological Sciences majors with an Environmental Biology Option must complete a core which includes the following courses and a 15-semester hours of electives selected from the Option Electives list below.

- BIO 1150 - Biology Forum. Credits: 1
- BIO 1500 - General Biology I. Credits: 4
- BIO 1550G - General Biology II. Credits: 4
- BIO 3120 - Molecular and Cellular Biology. Credits: 4
- BIO 3180 - Introduction to Ecology and Evolution. Credits: 4
- BIO 3200 - Genetics. Credits: 4
- BIO 3510 - Plant Physiology. Credits: 4
or
- BIO 3520 - Animal Physiology. Credits: 4
- BIO 3850 - Environmental Health and Sustainability. Credits: 4
- BIO 4275 - Internship. Credits: 6 or 12
(12 hours of BIO 4275 is required in the major)
- CHM 1310G - General Chemistry I. Credits: 3
- CHM 1315G - General Chemistry Laboratory I. Credits: 1
- CHM 1410 - General Chemistry II. Credits: 3
- CHM 1415 - General Chemistry Laboratory II. Credits: 1
- CHM 2430 - Survey of Organic Chemistry. Credits: 3
- CHM 2435 - Survey of Organic Chemistry Laboratory. Credits: 1
- ECN 2800G - Economics of Social Issues. Credits: 3
- MAT 2110G - Brief Calculus with Applications. Credits: 3
(See Footnote 1)
or
- MAT 1441G - Calculus and Analytic Geometry I. Credits: 5
(See Footnote 1)
- PLS 3763 - Environmental Politics and Policy. Credits: 3

AND

- BIO 4750 - Statistical Analysis of Scientific Data. Credits: 3
or
- MAT 2250G - Elementary Statistics. Credits: 4

Option Electives

Option electives to choose from (15 semester hours required):

- BIO 3300 - General Microbiology. Credits: 4
- BIO 3322 - Dendrology. Credits: 3
- BIO 3450A - Independent Study I. Credits: 1 to 3
or BIO 3450B
- BIO 3451A - Undergraduate Research I. Credits: 1 to 3
or BIO 3451B
- BIO 3612 - Plant Evolution and Diversity. Credits: 3
- BIO 3620 - Functional Comparative Anatomy. Credits: 4
- BIO 3710 - Plant – Animal Interactions. Credits: 3
- BIO 3810 - Freshwater Ecology. Credits: 3
- BIO 3950 - Vertebrate Natural History. Credits: 3
- BIO 3952 - Invertebrate Natural History. Credits: 3
- BIO 4400A - Teaching in the Lab I. Credits: 1
or BIO 4400B

- BIO 4810 - Plant Ecology. Credits: 3
- BIO 4812 - Fisheries Ecology and Management. Credits: 3
- BIO 4814 - Conservation Biology. Credits: 3
- BIO 4816 - Study of Biotic Communities. Credits: 3
- BIO 4818 - Environmental Microbiology. Credits: 4
- BIO 4820 - Spatial Analysis for Environmental Sciences. Credits: 4
- BIO 4832 - Animal Behavior. Credits: 4
- BIO 4840 - Resource Management and Environmental Assessment. Credits: 3
- BIO 4842 - Wildlife Ecology and Management. Credits: 3
- BIO 4940 - Phycology. Credits: 3
- BIO 4942 - Mycology. Credits: 3
- BIO 4944 - Lichens. Credits: 3
- BIO 4946 - Bryology. Credits: 3
- BIO 4948 - Plant Taxonomy. Credits: 3
- BIO 4950 - Ichthyology. Credits: 3
- BIO 4952 - Herpetology. Credits: 3
- BIO 4954 - Ornithology. Credits: 3
- BIO 4956 - Mammalogy. Credits: 3
- BIO 4958 - Parasitology. Credits: 4
- BIO 4960 - Wetland and Aquatic Vascular Plants. Credits: 3
- BIO 4964 - Entomology. Credits: 4
- BIO 4984 - Organic Evolution. Credits: 3
- CHM 4750 - Environmental Chemistry. Credits: 3
- ECN 3810 - Economics of Natural Resources. Credits: 3
- GEO 3550 - Surface Water Processes and Resources. Credits: 3
- GEO 3780 - Land Use Planning. Credits: 3
- GEO 3810 - Introduction to Geographic Information Systems. Credits: 3
- GEO 3820 - Remote Sensing I. Credits: 3
- GEO 3870 - Remote Sensing II. Credits: 3
- GEO 4850 - Environmental Geology. Credits: 3

Footnotes:

(Major GPA based on all biological sciences courses taken at EIU)

¹ Students not prepared for this course will be required to take additional prerequisite math classes.

Biological Sciences Teacher Licensure

See the Science with Teacher Licensure Major program, (Biological Sciences Specialization).

Biological Sciences Honors Program

To be admitted to the Departmental Honors Program, students must have completed a minimum of 60 semester hours of course work (including transfer credit) with a 3.50/4.00 cumulative grade point average. Students admitted to the program must maintain a cumulative grade point average of 3.50. Students dismissed from the program because their cumulative grade point average has fallen below 3.50 may petition for readmission. Students must raise their cumulative grade point average to 3.50 by the end of the term immediately following dismissal for reinstatement.

Total Semester Hours 12

Students must take at least three credit hours in Honors Thesis, nine additional credits in Biological Sciences Honors courses, and complete all other requirements for the major. Honors Thesis supervision will be undertaken by a faculty member and must be approved by the Departmental Honors Coordinator. Credits in honors courses will replace 12 credit hours of electives in the major.

- BIO 4444 - Honors Independent Study. Credits: 1 to 3
(Course may be repeated for up to 6 hours)
- BIO 4555 - Honors Research. Credits: 1 to 3
(Course may be repeated for up to 6 hours)

- BIO 4644 - Honors Thesis. Credits: 3
- BIO 4666 - Honors Seminar. Credits: 1

Biological Sciences Minor

Total Semester Hours: 21

- BIO 1500 - General Biology I. Credits: 4
- BIO 1550G - General Biology II. Credits: 4
- BIO 3120 - Molecular and Cellular Biology. Credits: 4
or
- BIO 3180 - Introduction to Ecology and Evolution. Credits: 4

Electives in Biological Sciences. Credits: 9 (See footnotes 1-3)

Footnotes:

¹ Students that have completed either BIO1200G or BIO 1300G will have 4 hours counted toward BIO elective credit.

² With the exception of BIO 3400, 4275, workshops, and courses designed for General Education.

³ A minimum of 6 sh must be at or above the 3000 level.

Pre-Health Professions

Pre-Medicine – Allopathic/Osteopathic, Pre-Dentistry, Pre-Veterinary Medicine, Pre-Optometry, Pre-Podiatry, Pre-Physician's Assistant, Pre-Pharmacy, Pre-Physical Therapy, and Pre-Occupational Therapy

Admission into any of the health professions is very competitive. Students should maintain a high grade point average, obtain leadership skills and exposure to the health profession of interest and make a strong showing on their test scores (MCAT, DAT, PCAT, OAT, or GRE). Although it is not necessary to obtain a baccalaureate degree to gain entrance into some of the health professions, it is highly recommended. Programs leading to the BA or the BS degree in a variety of majors are suitable although most students select a major in biological sciences or chemistry. When registering, such students must indicate their choice of degree-granting major, and declare Pre- (identify health profession) as a second major. It is recommended that the program be enriched with electives in social and behavioral sciences, humanities, and fine arts. All students interested in a career in a health profession should consult with the Pre-Health Professions Advisor for information regarding specific admission requirements. More information concerning these programs at EIU is available at <http://www.eiu.edu/~premed/>.

Most of the health professions will expect one year of each of the following; English, Biology, Chemistry, Organic Chemistry, and Physics. Many will also expect Anatomy, Physiology, Psychology, Statistics, Microbiology, and Biochemistry. Be sure to check the health profession of choice for their specific requirements.

Minimum Requirements:

- BIO 1500 - General Biology I. Credits: 4
- CHM 1310G - General Chemistry I. Credits: 3
- CHM 1315G - General Chemistry Laboratory I. Credits: 1
- CHM 1410 - General Chemistry II. Credits: 3
- CHM 1415 - General Chemistry Laboratory II. Credits: 1
- CHM 2440 - Organic Chemistry I. Credits: 3
- CHM 2445 - Organic Chemistry Laboratory I. Credits: 1
- CHM 2840 - Organic Chemistry II. Credits: 3
- CHM 2845 - Organic Chemistry Laboratory II. Credits: 1
- ENG 1001G - College Composition I: Critical Reading & Source-Based Writing. Credits: 3
- ENG 1002G - College Composition II: Argument & Critical Inquiry. Credits: 3

AND

- PHY 1151G - Principles of Physics I. Credits: 3
- PHY 1152G - Principles of Physics I Laboratory. Credits: 1
- PHY 1161 - Principles of Physics II. Credits: 3
- PHY 1162 - Principles of Physics II Laboratory. Credits: 1

OR

- PHY 1351G - General Physics I. Credits: 3
- PHY 1352G - General Physics I Laboratory. Credits: 1
- PHY 1361 - General Physics II. Credits: 3
- PHY 1362 - General Physics II Laboratory. Credits: 1

Recommended Electives (may be required by some programs)

- BIO 2210 - Anatomy and Physiology I. Credits: 4
- BIO 2220 - Anatomy and Physiology II. Credits: 4
- BIO 3120 - Molecular and Cellular Biology. Credits: 4
- BIO 3200 - Genetics. Credits: 4
- BIO 3300 - General Microbiology. Credits: 4
- CHM 3450 - Biochemistry I. Credits: 3

Pre-Nursing

Eastern Illinois University has a cooperative Baccalaureate in Nursing program with Lakeview College of Nursing. This arrangement allows students to pursue their BSN from Lakeview College of Nursing while having the convenience of remaining on Eastern's campus during all four years of their studies. EIU provides general education, prerequisite courses and advisement for pre-nursing students until they are accepted into Lakeview's program. Lakeview then delivers (through distance learning or on-site instructors) nursing courses to the EIU campus. When enrolled in the Lakeview program, students pay tuition to Lakeview. The degree is awarded from Lakeview College of Nursing. More information concerning this program at EIU is available at <http://www.eiu.edu/~premed/>.

Chiropractic Medicine

Eastern Illinois University has entered into a "3+3" affiliation agreement with Logan College of Chiropractic and Palmer College of Chiropractic. Both programs offer guaranteed admissions for qualified students to attend after 3 years (90 credits) at Eastern and finish a doctor of Chiropractic degree after 3 additional years at Logan or Palmer. Students who successfully complete the Pre-Chiropractic Program at EIU with a cumulative GPA of 3.25 or higher and meet all other criteria for admission shall be accepted at Palmer or Logan Colleges. Upon completion of the first year of studies at Logan and Palmer, a maximum of 34 credits may be transferred back to EIU toward completion of credits required for the Bachelor of Science in Biological Sciences degree at Eastern. More information concerning this program at EIU is available at <http://www.eiu.edu/~premed/>.

Department of Chemistry & Biochemistry

Department Faculty

Rebecca Peebles, Chairperson

Blitz, J.; Chesnut, R.; He, H.; Klarup, D.; Mitrovski, S.; Peebles, R.; Peebles, S.; Periyannan, G.; Semeniuc, R.; Sheeran, D.; Treadwell, E.; Yan, Z.

Department Telephone: 217.581.3322

Biochemistry (B.S.)

Total Semester Hours required for the Degree: 120 semester hours

Major

Semester Hours required for the B.S. in Biochemistry: 78 semester hours

The Bachelor of Science in Biochemistry (see Footnote 1) is comprised of the following courses.

Students who have completed college-level, algebra-based physics courses (e.g., PHY 1151G, 1152G, 1161, 1162) should consult the department chair.

A five year accelerated BS/MS program is available for the Biochemistry Option. Detailed information is available at http://www.eiu.edu/eiuchemgrad/accelerated_MS.php.

Courses:

Total Semester Hours: 78

- CHM 1310G - General Chemistry I. Credits: 3
- CHM 1315G - General Chemistry Laboratory I. Credits: 1
- CHM 1410 - General Chemistry II. Credits: 3
- CHM 1415 - General Chemistry Laboratory II. Credits: 1
- CHM 2310 - Inorganic Chemistry I. Credits: 3
- CHM 2440 - Organic Chemistry I. Credits: 3
- CHM 2445 - Organic Chemistry Laboratory I. Credits: 1
- CHM 2730 - Quantitative Analysis. Credits: 3
- CHM 2840 - Organic Chemistry II. Credits: 3
- CHM 2845 - Organic Chemistry Laboratory II. Credits: 1
- CHM 3000 - Undergraduate Seminar. Credits: 0
- CHM 3001 - Undergraduate Seminar. Credits: 1
- CHM 3450 - Biochemistry I. Credits: 3
- CHM 3455 - Biochemistry Laboratory. Credits: 2
- CHM 3460 - Biochemistry II. Credits: 3
- CHM 3500 - Introduction to Chemical Research. Credits: 1
- CHM 3780 - Instrumental Analysis. Credits: 3
- CHM 3910 - Chemical Thermodynamics and Kinetics. Credits: 3
- CHM 3915 - Physical Chemistry Laboratory. Credits: 2
- CHM 3920 - Quantum Chemistry. Credits: 3
- OR
- CHM 4900 - Inorganic Chemistry II. Credits: 3
- CHM 4000 - Undergraduate Seminar. Credits: 0
- CHM 4001 - Undergraduate Seminar. Credits: 1
- CHM 4860 - Advanced Biochemistry. Credits: 3
- BIO 1500 - General Biology I. Credits: 4
- BIO 3200 - Genetics. Credits: 4
- OR
- BIO 3300 - General Microbiology. Credits: 4
(see Footnote 2)
- MAT 1441G - Calculus and Analytic Geometry I. Credits: 5
- MAT 2442 - Calculus and Analytic Geometry II. Credits: 5
- PHY 1351G - General Physics I. Credits: 3
- PHY 1352G - General Physics I Laboratory. Credits: 1
- PHY 1361 - General Physics II. Credits: 3
- PHY 1362 - General Physics II Laboratory. Credits: 1

AND

Five Semester Hours of Electives in departments of Chemistry and Biochemistry (see Footnotes 3 and 4) or Biological Sciences (see Footnote 5).

Footnotes:

(Major GPA based on all chemistry courses taken at EIU.)

¹ Satisfies certification requirements of the American Chemical Society.

² One course is required; the other may be used as an elective.

³ The following may not be used as electives; CHM 1040G, 3025G, 3200, and 3300.

⁴ Electives must include two semester hours of 3000 level or higher chemistry laboratory work. Courses that may be used to satisfy this requirement include Undergraduate Research I-IV: CHM 44001-44004, Honors Research I-II: CHM 45551 and CHM 45552, CHM 4770 or CHM 4915.

⁵ Only 3000 level or higher level BIO courses selected in consultation with student's major advisor and approved by the Chemistry and Biochemistry department chair may count for electives.

Chemistry (B.A.)

Total Semester Hours required for the Degree: 120 semester hours

Major

The Bachelor of Arts in Chemistry is comprised of the following:

Students who have completed college-level, algebra-based physics courses (e.g., PHY 1151G, 1152G, 1161, 1162) should consult the department chair.

A five year accelerated BA/MS program is available. Detailed information is available at http://www.eiu.edu/eiuchemgrad/accelerated_MS.php.

Semester Hours required for the B.A. in Chemistry Major: 54 semester hours

- CHM 1310G - General Chemistry I. Credits: 3
- CHM 1315G - General Chemistry Laboratory I. Credits: 1
- CHM 1410 - General Chemistry II. Credits: 3
- CHM 1415 - General Chemistry Laboratory II. Credits: 1
- CHM 2310 - Inorganic Chemistry I. Credits: 3
- CHM 2440 - Organic Chemistry I. Credits: 3
- CHM 2445 - Organic Chemistry Laboratory I. Credits: 1
- CHM 2730 - Quantitative Analysis. Credits: 3
- CHM 2840 - Organic Chemistry II. Credits: 3
- CHM 2845 - Organic Chemistry Laboratory II. Credits: 1
- CHM 3000 - Undergraduate Seminar. Credits: 0
- CHM 3001 - Undergraduate Seminar. Credits: 1
- CHM 3500 - Introduction to Chemical Research. Credits: 1
- MAT 1441G - Calculus and Analytic Geometry I. Credits: 5
- MAT 2442 - Calculus and Analytic Geometry II. Credits: 5
- PHY 1351G - General Physics I. Credits: 3
- PHY 1352G - General Physics I Laboratory. Credits: 1
- PHY 1361 - General Physics II. Credits: 3
- PHY 1362 - General Physics II Laboratory. Credits: 1

AND

- CHM 3300 - Survey of Biochemistry. Credits: 3
OR
- CHM 3450 - Biochemistry I. Credits: 3

AND

- CHM 3910 - Chemical Thermodynamics and Kinetics. Credits: 3
OR
- CHM 3920 - Quantum Chemistry. Credits: 3

AND Six Semester Hours of Electives in Chemistry (See Footnotes 1, 2 and 3)

Footnotes:

(Major GPA based on all chemistry courses taken at EIU.)

¹ The following may not be used as electives: Chemistry 1040G, 3025G, 3100, 3200 and 4001.

² A maximum of 3 semester hours of Undergraduate Research I-IV, CHM 44001-44004, may be used to satisfy the requirements for a chemistry degree.

³ Prerequisite requirements must be met for all relevant chemistry courses.

Chemistry (B.S.)

Total Semester Hours required for the Degree: 120 semester hours

Major

Semester Hours required for the B.S. in Chemistry Major: 68-93 semester hours depending on Concentration

The Bachelor of Science in Chemistry is comprised of the following common core courses and one of the listed Chemistry Concentrations.

Students who have completed college-level, algebra-based physics courses (e.g., PHY 1151G, 1152G, 1161, 1162) should consult the department chair.

A five year accelerated BS/MS program is available for the Chemistry concentrations. Detailed information is available at http://www.eiu.edu/eiuchemgrad/accelerated_MS.php.

Common Core Courses:

Total Semester Hours: 48

- CHM 1310G - General Chemistry I. Credits: 3
- CHM 1315G - General Chemistry Laboratory I. Credits: 1
- CHM 1410 - General Chemistry II. Credits: 3
- CHM 1415 - General Chemistry Laboratory II. Credits: 1
- CHM 2310 - Inorganic Chemistry I. Credits: 3
- CHM 2440 - Organic Chemistry I. Credits: 3
- CHM 2445 - Organic Chemistry Laboratory I. Credits: 1
- CHM 2730 - Quantitative Analysis. Credits: 3
- CHM 2840 - Organic Chemistry II. Credits: 3
- CHM 2845 - Organic Chemistry Laboratory II. Credits: 1
- CHM 3000 - Undergraduate Seminar. Credits: 0
- CHM 3001 - Undergraduate Seminar. Credits: 1
- CHM 3500 - Introduction to Chemical Research. Credits: 1
- CHM 3780 - Instrumental Analysis. Credits: 3
- CHM 3910 - Chemical Thermodynamics and Kinetics. Credits: 3
- MAT 1441G - Calculus and Analytic Geometry I. Credits: 5
- MAT 2442 - Calculus and Analytic Geometry II. Credits: 5
- PHY 1351G - General Physics I. Credits: 3
- PHY 1352G - General Physics I Laboratory. Credits: 1
- PHY 1361 - General Physics II. Credits: 3
- PHY 1362 - General Physics II Laboratory. Credits: 1

Chemistry Concentrations:

1. Chemistry (See Footnote 1)

Total Semester Hours: 20

Five semester hours of electives in Chemistry (See footnotes 2 and 3)

- CHM 3450 - Biochemistry I. Credits: 3
- CHM 3915 - Physical Chemistry Laboratory. Credits: 2
- CHM 3920 - Quantum Chemistry. Credits: 3
- CHM 4000 - Undergraduate Seminar. Credits: 0
- CHM 4001 - Undergraduate Seminar. Credits: 1
- CHM 4900 - Inorganic Chemistry II. Credits: 3
- CHM 4915 - Advanced Laboratory. Credits: 3

2. Management

Total Semester Hours: 42

- Three semester hours of electives in Chemistry (See Footnote 4)
- BUS 1950 - Computer Concepts and Applications for Business. Credits: 3
- BUS 2101 - Financial Accounting. Credits: 3
- BUS 2102 - Managerial Accounting. Credits: 3
- BUS 2750 - Legal and Social Environment of Business. Credits: 3
- BUS 2810 - Business Statistics I. Credits: 3
- BUS 3010 - Management and Organizational Behavior. Credits: 3
- BUS 3100 - Survey of Marketing Principles. Credits: 3
- or
- BUS 3470 - Principles of Marketing. Credits: 3
- BUS 3500 - Management Information Systems. Credits: 3
- BUS 3710 - Business Financial Management. Credits: 3
- BUS 3950 - Operations Management. Credits: 3
- CHM 3300 - Survey of Biochemistry. Credits: 3
- ECN 2801G - Principles of Macroeconomics. Credits: 3
- ECN 2802G - Principles of Microeconomics. Credits: 3

Footnotes:

(Major GPA based on all chemistry courses taken at EIU.)

¹ Satisfies certification requirements of the American Chemical Society.

² Electives in the Chemistry Concentration must include two semester hours of 3000-level or higher chemistry laboratory work in addition to CHM 4915. Courses that may be used to satisfy this requirement include CHM 3455, Undergraduate Research I-IV: CHM 44001-44004, Honors Research I-II: CHM 45551 and 45552, CHM 4770.

³ The following may not be used as electives in the Chemistry Concentration: CHM 1040G, 3025G, 3100, 3200, and 3300.

⁴ The following may not be used as electives in the Management Concentration: CHM 1040G, 3025G, 3100, 3200, and 4001.

Chemistry Teacher Licensure

See the Science with Teacher Licensure Major program, (Chemistry Specialization).

Chemistry Honors Program

To be admitted to the Departmental Honors Program, students must have at least a 3.50 GPA on a 4.0 point scale, permission of the Dean of the Honors College, and permission of the Departmental Honors Coordinator.

Students in the Chemistry Honors Program must maintain an **overall** GPA of 3.50. Students who have been dismissed from the program because their overall GPA has fallen below 3.50 may petition for readmission. Students must raise their grade-point average to 3.50 and submit their petition to the Dean of the Honors College and Departmental Honors Coordinator.

Departmental Honors Requirements

At least 12 semester hours in the following courses:

Six Required Semester Hours From:

- CHM 45551 - Honors Research I. Credits: 1 to 3
or CHM 45552 - Honors Research II.
(2 semester hours required)
- CHM 4644 - Honors Thesis. Credits: 3
- CHM 4666 - Honors Seminar. Credits: 1

Six or More Semester Hours Elected From:

- A Chemistry graduate course approved by the Departmental Honors Coordinator. Credits: 3
- CHM 44441 - Honors Independent Study I. Credits: 1 to 3
or CHM 44442 or CHM 44443 or CHM 44444
- CHM 45551 - Honors Research I. Credits: 1 to 3
or CHM 45552

Chemistry Minor

Total Semester Hours: 21

Requirements

The Chemistry Minor is comprised of the following courses as well as either Track I or Track II below.

- CHM 1310G - General Chemistry I. Credits: 3
- CHM 1315G - General Chemistry Laboratory I. Credits: 1
- CHM 1410 - General Chemistry II. Credits: 3
- CHM 1415 - General Chemistry Laboratory II. Credits: 1
- CHM 2730 - Quantitative Analysis. Credits: 3

Track I -- 10 Semester Hours

Four Semester Hours from the following courses:

- CHM 2430 - Survey of Organic Chemistry. Credits: 3
- CHM 2435 - Survey of Organic Chemistry Laboratory. Credits: 1

And six semester hours of electives in Chemistry (See footnote 1) from the following:

- CHM 2310 - Inorganic Chemistry I. Credits: 3
- CHM 3300 - Survey of Biochemistry. Credits: 3
- CHM 3780 - Instrumental Analysis. Credits: 3
- CHM 3910 - Chemical Thermodynamics and Kinetics. Credits: 3
- CHM 3920 - Quantum Chemistry. Credits: 3
- CHM 44001 - Undergraduate Research I. Credits: 1 to 3 or CHM 44402 or CHM 44403 or CHM 44404
- CHM 4750 - Environmental Chemistry. Credits: 3

Track II-- 10 Semester Hours

Seven Semester Hours from the following courses:

- CHM 2440 - Organic Chemistry I. Credits: 3
- CHM 2445 - Organic Chemistry Laboratory I. Credits: 1
- CHM 2840 - Organic Chemistry II. Credits: 3

And three semester hours of electives in Chemistry (See footnote 1) from the following:

- CHM 2310 - Inorganic Chemistry I. Credits: 3
- CHM 3300 - Survey of Biochemistry. Credits: 3
- CHM 3450 - Biochemistry I. Credits: 3
- CHM 3780 - Instrumental Analysis. Credits: 3
- CHM 3910 - Chemical Thermodynamics and Kinetics. Credits: 3
- CHM 3920 - Quantum Chemistry. Credits: 3
- CHM 44001 - Undergraduate Research I. Credits: 1 to 3 or CHM 44002 or CHM 44003 or CHM 44004
- CHM 4750 - Environmental Chemistry. Credits: 3
- CHM 4790 - Medicinal Chemistry. Credits: 3
- CHM 4800 - Selected Topics in Chemistry. Credits: 1 to 3

Footnote:

¹ Check course prerequisites.

Pre-Health Professions

Pre-Medicine – Allopathic/Osteopathic, Pre-Dentistry, Pre-Veterinary Medicine, Pre-Optometry, Pre-Podiatry, Pre-Physician's Assistant, Pre-Pharmacy, Pre-Physical Therapy, and Pre-Occupational Therapy

Admission into any of the health professions is very competitive. Students should maintain a high grade point average, obtain leadership skills and exposure to the health profession of interest and make a strong showing on their test scores (MCAT, DAT, PCAT, OAT, or GRE). Although it is not necessary to obtain a baccalaureate degree to gain entrance into some of the health professions, it is highly recommended. Programs leading to the BA or the BS degree in a variety of majors are suitable although most students select a major in biological sciences or chemistry. When registering, such students must indicate their choice of degree-granting major, and declare Pre- (identify health profession) as a second major. It is recommended that the program be enriched with electives in social and behavioral sciences, humanities, and fine arts. All students interested in a career in a health profession should consult with the Pre-Health Professions Advisor for information regarding specific admission requirements. More information concerning these programs at EIU is available at <http://www.eiu.edu/~premed/>.

Most of the health professions will expect one year of each of the following; English, Biology, Chemistry, Organic Chemistry, and Physics. Many will also expect Anatomy, Physiology, Psychology, Statistics, Microbiology, and Biochemistry. Be sure to check the health profession of choice for their specific requirements.

Minimum Requirements:

- BIO 1500 - General Biology I. Credits: 4
- CHM 1310G - General Chemistry I. Credits: 3
- CHM 1315G - General Chemistry Laboratory I. Credits: 1
- CHM 1410 - General Chemistry II. Credits: 3
- CHM 1415 - General Chemistry Laboratory II. Credits: 1
- CHM 2440 - Organic Chemistry I. Credits: 3
- CHM 2445 - Organic Chemistry Laboratory I. Credits: 1
- CHM 2840 - Organic Chemistry II. Credits: 3
- CHM 2845 - Organic Chemistry Laboratory II. Credits: 1
- ENG 1001G - College Composition I: Critical Reading & Source-Based Writing. Credits: 3
- ENG 1002G - College Composition II: Argument & Critical Inquiry. Credits: 3

AND

- PHY 1151G - Principles of Physics I. Credits: 3
- PHY 1152G - Principles of Physics I Laboratory. Credits: 1
- PHY 1161 - Principles of Physics II. Credits: 3
- PHY 1162 - Principles of Physics II Laboratory. Credits: 1

OR

- PHY 1351G - General Physics I. Credits: 3
- PHY 1352G - General Physics I Laboratory. Credits: 1
- PHY 1361 - General Physics II. Credits: 3
- PHY 1362 - General Physics II Laboratory. Credits: 1

Recommended Electives (may be required by some programs)

- BIO 2210 - Anatomy and Physiology I. Credits: 4
- BIO 2220 - Anatomy and Physiology II. Credits: 4
- BIO 3120 - Molecular and Cellular Biology. Credits: 4
- BIO 3200 - Genetics. Credits: 4
- BIO 3300 - General Microbiology. Credits: 4
- CHM 3450 - Biochemistry I. Credits: 3

Pre-Nursing

Eastern Illinois University has a cooperative Baccalaureate in Nursing program with Lakeview College of Nursing. This arrangement allows students to pursue their BSN from Lakeview College of Nursing while having the convenience of remaining on Eastern's campus during all four years of their studies. EIU provides general education, prerequisite courses and advisement for pre-nursing students until they are

accepted into Lakeview's program. Lakeview then delivers (through distance learning or on-site instructors) nursing courses to the EIU campus. When enrolled in the Lakeview program, students pay tuition to Lakeview. The degree is awarded from Lakeview College of Nursing. More information concerning this program at EIU is available at <http://www.eiu.edu/~premed/>.

Chiropractic Medicine

Eastern Illinois University has entered into a "3+3" affiliation agreement with Logan College of Chiropractic and Palmer College of Chiropractic. Both programs offer guaranteed admissions for qualified students to attend after 3 years (90 credits) at Eastern and finish a doctor of Chiropractic degree after 3 additional years at Logan or Palmer. Students who successfully complete the Pre-Chiropractic Program at EIU with a cumulative GPA of 3.25 or higher and meet all other criteria for admission shall be accepted at Palmer or Logan Colleges. Upon completion of the first year of studies at Logan and Palmer, a maximum of 34 credits may be transferred back to EIU toward completion of credits required for the Bachelor of Science in Biological Sciences degree at Eastern. More information concerning this program at EIU is available at <http://www.eiu.edu/~premed/>.

Department of Clinical Laboratory Science

Clinical Laboratory Science (B.S.)

Total Semester Hours required for the Degree: 120 semester hours

This cooperative degree program, administered by the Pre-Health Professions Advisor, leads to the Bachelor of Science degree. It is a four-year program including three years of college courses followed by one year of work in an affiliated hospital. The degree requires 120 semester hours of credit including 90 semester hours at EIU (or a combination of transfer credits and credits earned at Eastern totaling 90 semester hours) and 32 semester hours credit for successful completion of a one-year program in clinical laboratory science at a National Accrediting Agency for Clinical Laboratory Science (NAACLS) affiliated hospital. Upon successful completion of the hospital work, the student becomes a candidate for a Bachelor of Science degree in Clinical Laboratory Science and is eligible to take the certifying examinations of the American Society of Clinical Pathologists (ASCP) for registry as a Medical Laboratory Scientist. The clinical hours taken at the affiliated hospital will be treated as courses taken at EIU counting in residency hours and will be included in EIU grade point average. Since the clinical hours are treated as EIU residency hours, CLS majors are required to satisfy the standard 42 EIU residency hours, the 32 hour junior/senior year and 12 hour senior year residency hours despite being cooperative degree students. EIU cannot guarantee admission to any of its affiliated hospitals.

Major

Semester Hours required for the Clinical Laboratory Science Major: 82-89 semester hours

The Clinical Laboratory Science Major comprises:

Biology Requirements (24 hours)

- BIO 1500 - General Biology I. Credits: 4
- BIO 1550G - General Biology II. Credits: 4
- BIO 3120 - Molecular and Cellular Biology. Credits: 4
- BIO 3210 - Immunology. Credits: 4
- BIO 3300 - General Microbiology. Credits: 4

AND

- BIO 2001G - Human Physiology. Credits: 4
or
- BIO 3520 - Animal Physiology. Credits: 4
or
- BIO 2220 - Anatomy and Physiology II. Credits: 4
(Note: BIO 2210 must be taken first and counted as an elective.)

Chemistry Requirements (16-18 hours)

16 Credits of Chemistry through Organic with lab to include:

- CHM 1310G - General Chemistry I. Credits: 3
- CHM 1315G - General Chemistry Laboratory I. Credits: 1
- CHM 1410 - General Chemistry II. Credits: 3
- CHM 1415 - General Chemistry Laboratory II. Credits: 1

Then Either

- CHM 2440 - Organic Chemistry I. Credits: 3
- CHM 2445 - Organic Chemistry Laboratory I. Credits: 1
- CHM 2840 - Organic Chemistry II. Credits: 3
- CHM 2845 - Organic Chemistry Laboratory II. Credits: 1

OR

- CHM 2430 - Survey of Organic Chemistry. Credits: 3

- CHM 2435 - Survey of Organic Chemistry Laboratory. Credits: 1
- CHM 2730 - Quantitative Analysis. Credits: 3
- CHM 3300 - Survey of Biochemistry. Credits: 3

Mathematics Requirements (4-7 hours)

- MAT 1271 - College Algebra. Credits: 3
or Equivalent Math Placement Test Level
- MAT 2250G - Elementary Statistics. Credits: 4

Clinical Laboratory Science Electives (6 hours)

Choose two electives (a minimum of 6 s.h. required) from:

- BIO 2210 - Anatomy and Physiology I. Credits: 4
- BIO 3200 - Genetics. Credits: 4
- BIO 3624 - Histology. Credits: 3
- BIO 3740 - Clinical Mycology. Credits: 3
- BIO 4836 - Pathogenic Microbiology. Credits: 4
- BIO 4958 - Parasitology. Credits: 4
- BUS 1950 - Computer Concepts and Applications for Business. Credits: 3
- BUS 3010 - Management and Organizational Behavior. Credits: 3
- PHY 1151G - Principles of Physics I. Credits: 3
- PHY 1152G - Principles of Physics I Laboratory. Credits: 1
- PHY 1161 - Principles of Physics II. Credits: 3
- PHY 1162 - Principles of Physics II Laboratory. Credits: 1

Clinical Laboratory Science Requirements (32 hours)

These courses are to be taken at affiliated hospital.

- CLS 4000 - Clinical Chemistry I. Credits: 4 to 6
- CLS 4005 - Clinical Chemistry II. Credits: 2 to 5
- CLS 4010 - Clinical Hematology. Credits: 4 to 6
- CLS 4020 - Clinical Hemostasis. Credits: 1 to 2
- CLS 4030 - Clinical Immunohematology. Credits: 3 to 5
- CLS 4040 - Clinical Immunology. Credits: 2 to 3
- CLS 4050 - Clinical Microbiology I. Credits: 5 to 6
- CLS 4055 - Clinical Microbiology II. Credits: 2 to 3
- CLS 4060 - Special Topics in Clinical Laboratory Science. Credits: 1
- CLS 4070 - Clinical Management and Education. Credits: 1

Footnotes:

(Major GPA based on all courses listed as appropriate for meeting major requirements)

- Student must have completed 90 hours before beginning clinicals; must average 15 credits/semester.
- CLS students must meet foreign language requirements.
- CLS students must meet math requirement (MAT 1271 or equiv).
- CLS students will not be required to take a senior seminar because the terminal year is taken off-campus.

Department of Communication Disorders & Sciences

Department Faculty

Angela Anthony, Chairperson

Barcus, L.; Becker, T.; Bergstrom, B.; Eddington, R.; Fahy, J.; Gurevich, N.; Mulvey, N.; Osmelak, D.; Ramrattan, H.; Scott, C.; Smitley, J.; Throneburg, R.

Department Telephone: 217.581.2712

Communication Disorders and Sciences (B.S.)

Total Semester Hours required for the Degree: 120 semester hours

Admission to the Major

I. Probational Admission

Students entering EIU as freshmen or transfers seeking a CDS major will be classified as probational CDS majors. Probational majors may register for all lower division (2999 or lower) courses in the CDS major.

II. Admission to the CDS Major

Access to all upper division CDS courses (3000 or higher) requires admission to the CDS Major. The Department Chair reviews the applications of all probational CDS majors seeking admission to the major. The chair determines if the student's academic achievement supports admission to the major and access to upper division (3000 or higher) courses.

III. Criteria for Degree Admission

1. Admission to the University
2. Classification as a probational CDS major.
3. Achievement of a cumulative GPA of 2.5 or higher for all EIU course work.
4. For native EIU students, completion of at least 45 semester hours of course work at EIU.
5. For transfers, completion of at least 15 semester hours of course work at EIU.
6. Completion of at least three of the five lower division core CDS courses in the major, with one of the three being either CDS 2500 or CDS 2800, and achievement of a minimum 2.75 GPA for all lower division core CDS courses completed at the time of application.* Lower division core courses are:
 - CDS 2000 - Introduction to Communication Disorders & Sciences. Credits: 1
 - CDS 2100 - Phonetics and Phonological Development. Credits: 3
 - CDS 2200 - Language Acquisition. Credits: 3
 - CDS 2500 - Anatomy and Physiology of the Speech, Language, Swallowing, and Hearing Mechanism. Credits: 3
 - CDS 2800 - Speech and Hearing Science. Credits: 3

Footnote:

*In lieu of items 2-6, students who transfer to EIU with a minimum grade point average of 2.75 in at least 7 semester hours of equivalent CDS course work (as specified in item #6) will be allowed access to upper division course work.

IV. Registration for Upper Division Courses

Only students admitted to the CDS major will be approved to register for upper division (3000 or higher) CDS courses. Students must maintain a 2.5 overall GPA and a 2.75 GPA in Communication Disorders and Sciences to register for subsequent upper-division CDS courses.

V. Probational Majors Who Do Not Meet Admission to the CDS Major Criteria

Probational CDS majors who do not meet the requirements for admission to the CDS major will remain classified as probational. Probational majors may continue to take lower division CDS courses; however, probational majors may not register for upper division CDS courses. Probational majors may reapply for admission to the major when they meet the admission requirements or they may seek advisement in changing majors.

VI. Application Deadlines

Applications are available in the Department Office, Room 2105, Human Services Center. Probational majors must return completed applications to the Department Office on or before the following deadlines in order to be admitted to the major and register for upper-division courses:

<u>Admission</u>	<u>Application Deadline</u>	<u>Notification Date</u>
Fall	February 1	March 1
Fall (Entering Summer)	May 15	June 1

Major (toward professional credentials)***Total semester hours required for the Communication Disorders & Sciences Major: 58-59 semester hours**

The major in Communication Disorders and Sciences comprises:

- BIO 2001G - Human Physiology. Credits: 4
- CDS 2000 - Introduction to Communication Disorders & Sciences. Credits: 1
- CDS 2100 - Phonetics and Phonological Development. Credits: 3
- CDS 2200 - Language Acquisition. Credits: 3
- CDS 2500 - Anatomy and Physiology of the Speech, Language, Swallowing, and Hearing Mechanism. Credits: 3
- CDS 2800 - Speech and Hearing Science. Credits: 3
- CDS 3100 - Phonological Assessment and Remediation. Credits: 3
- CDS 3200 - Developmental Language Disorders. Credits: 3
- CDS 3500 - Neurological/Embryological Aspects of Communication. Credits: 3
- CDS 3700 - Diagnosis and Treatment of Communication Disorders. Credits: 3
- CDS 3900 - Introduction to Clinical Techniques in Communication Disorders and Sciences. Credits: 2
- CDS 4300 - Introduction to Audiology. Credits: 3
- CDS 4350 - Aural Rehabilitation. Credits: 3
- CDS 4600 - Seminar in Communication Disorders and Sciences. Credits: 3
OR CDS 4690 - Honors Seminar in Communication Disorders and Sciences. Credits: 3
- CDS 4810 - Sign Language and Deaf Culture for the Speech-Language-Pathologist. Credits: 2
(See footnote ***)
- CDS 4815 - Augmentative and Alternative Communication. Credits: 2
- CDS 4900 - Clinical Practice. Credits: 1
- PHY 1071 - Physics of Sound and Music. Credits: 3
- PHY 1072 - Physics of Sound and Music Laboratory. Credits: 1
- PSY 1879G - Introductory Psychology. Credits: 3

AND

- FCS 2850 - Child Development. Credits: 3
or
- PSY 3515 - Child Psychology. Credits: 3

AND

- MAT 2250G - Elementary Statistics. Credits: 4
(See Footnote ****)
or
- PSY 2610 - Statistical Methods of Psychology. Credits: 4
or
- BUS 2810 - Business Statistics I. Credits: 3

Footnotes:

***Note:** The Master's Degree is the required level of training for Certification by the American Speech-Language-Hearing Association, the Illinois State Board of Education, and the Illinois Department of Financial and Professional Regulation. At least a 3.00 GPA (A=4.0) in the undergraduate Communication Disorders and Sciences major, two letters of recommendation, GRE scores, and completion of Communication Disorders and Sciences and Graduate School application procedures are required for admission consideration to the graduate program at EIU. Admission is competitive. All applicants are ranked by a Graduate Admissions Committee according to major GPA, Clinical Criteria, and Professional Criteria. Students who have a baccalaureate degree in a major other than CDS must complete all 2000 level CDS courses and CDS 3100, 3200, 3300, and 3700 or their equivalent prior to being considered for admission to the CDS graduate program.

** A 2.5 overall GPA and a 2.75 GPA in the Communication Disorders and Sciences major are required for admission to CDS 4900. Major GPA based on all Communication Disorders and Sciences courses taken at EIU.

***Students who demonstrate satisfactory completion of a previous sign language course may waive CDS 4810.

**** Prerequisite: MAT 1271; or satisfactory placement by department guidelines.

Communication Disorders and Sciences Honors Program

Admission to the Department Honors Program in Communication Disorders and Science requires a minimum 3.50 (4.0 scale) cumulative GPA and approval of the Department Honors Admission Committee. Students must maintain a cumulative GPA of 3.5 (4.0 scale) to continue in the Honors Program. Honors courses will replace required and elective courses in the CDS curriculum. Admission will be limited to availability of program resources.

Departmental Honors Requirements

CDS Honors students will complete all of the requirements for the major with the following substitutions:

- CDS 4644 - Honors Thesis. Credits: 3
(Honors Thesis replaces elective in the program. Six hours are required.)
- CDS 4666 - Honors Seminar. Credits: 3
(Honors Seminar replaces electives in the program)
- CDS 4690 - Honors Seminar in Communication Disorders and Sciences. Credits: 3
(Honors Seminar in CDS is substituted for CDS 4600)

Department of Economics

Department Faculty

Ali Moshtagh, Chairperson

Abebe, T.; Abou-Zaid, A.; Adom, A.D.; Brodsky, N.; Bruehler, J.; Dao, M.; Ghent, L; Upadhyay, M.

Department Telephone: 217.581.2719

Economics (B.A.)

Total Semester Hours required for the Degree: 120 semester hours

Major (See footnote 1)

Semester Hours required for the Economics Major: 42-44 semester hours

Admission to the program requires a 2.25 GPA in Economics course work with at least six semester hours of Economics earned. Graduation from this program requires at least a "C" in each of Economics 3971 (or Mathematics 3701 or Business 2810 or other equivalent courses subject to Economics Department approval), 3972 (or Mathematics 3702), 4689, 4801, and 4802, whether the course or its equivalent is taken at Eastern or at another school. ECN 2800G may not be counted as part of the 36 semester-hour requirement for an economics major.

The Economics major comprises:

36 Hours in Economics Courses (See footnote 2)

36 hours in Economic courses (excluding 2800G) including the following required coursework:

- ECN 2801G - Principles of Macroeconomics. Credits: 3
OR
- ECN 2891G - Principles of Macroeconomics, Honors. Credits: 3
- ECN 2802G - Principles of Microeconomics. Credits: 3
OR
- ECN 2892G - Principles of Microeconomics, Honors. Credits: 3
- ECN 3971 - Statistics Applied to Economics I. Credits: 3
(See footnote 3)
- ECN 3972 - Statistics Applied to Economics II. Credits: 3
(See footnote 4)
- ECN 4689 - Theory and Research. Credits: 3
- ECN 4801 - Intermediate Macroeconomic Theory. Credits: 3
- ECN 4802 - Intermediate Microeconomic Theory. Credits: 3

6-8 Semester Hours in the following Math courses:

- MAT 1441G - Calculus and Analytic Geometry I. Credits: 5
(See footnote 1)
OR
- MAT 2110G - Brief Calculus with Applications. Credits: 3

AND

- MAT 2120G - Finite Mathematics. Credits: 3
or
- MAT 2190G - Finite Mathematics, Honors. Credits: 3
OR
- MAT 2550 - Introduction to Linear Algebra. Credits: 3
(See Footnote 1)

Footnotes:

(Major GPA based on all economics courses taken at EIU.)

¹It is strongly recommended that students complete Mathematics 2110G (or 1441G) and 2120G (or 2550) before enrolling in Economics courses numbered 4750 or above. Mathematics 1441G, 2550, 3701, and 3702 are recommended for those students who wish to enter Ph.D. programs in Economics. It is also strongly recommended that prospective Ph.D. students complete the entire calculus sequence by following Mathematics 1441G with Mathematics 2442 and 2443 which are the prerequisites for Mathematics 3701 and 3702, as well as the differential equations sequence, Mathematics 3501 and 3502.

²Substitution of Business 2810, Mathematics 3701, 3702 or other equivalent courses for Economics 3971 or Economics 3972 does not reduce the 36 semester hours in Economics courses. That is, the student may need to add one or two elective ECN courses to his/her program.

³ Or Mathematics 3701 or Business 2810 or other equivalent courses subject to Economics Department approval.

⁴ Or Mathematics 3702.

Economics: International Studies Option (B.A.)

Total Semester Hours required for the Degree: 120 semester hours

Core Requirements (See footnote 1)

Semester Hours required for the Economics: International Studies Option: 61-66 semester hours

Admission to the program requires a 2.25 GPA in Economics course work with at least six semester hours of Economics earned. Graduation from this program requires at least a "C" in each of ECN 3971 (or MAT 3701 or BUS 2810 or other equivalent courses subject to Economics Department approval), 3972 (or MAT 3702), 4689, 4801, and 4802, whether the course or its equivalent is taken at Eastern or at another school. ECN 2800G may not be counted as part of the 33 semester-hour requirement for an Economics major with an International Studies Option.

The International Studies option comprises:

33 Semester Hours in Economics Courses (See footnote 2)

33 semester hours in Economics courses (excluding 2800G) including the following required coursework:

- ECN 2801G - Principles of Macroeconomics. Credits: 3
OR
- ECN 2891G - Principles of Macroeconomics, Honors. Credits: 3
- ECN 2802G - Principles of Microeconomics. Credits: 3
OR
- ECN 2892G - Principles of Microeconomics, Honors. Credits: 3
- ECN 3860 - International Economics. Credits: 3
OR
- ECN 3891 - International Economics, Honors. Credits: 3
- ECN 3971 - Statistics Applied to Economics I. Credits: 3
(See footnote 3)
- ECN 3972 - Statistics Applied to Economics II. Credits: 3
(See footnote 4)
- ECN 4689 - Theory and Research. Credits: 3
- ECN 4801 - Intermediate Macroeconomic Theory. Credits: 3
- ECN 4802 - Intermediate Microeconomic Theory. Credits: 3

6-8 Semester Hours in the Following Math Courses:

- MAT 1441G - Calculus and Analytic Geometry I. Credits: 5
(See footnote 1)
OR
- MAT 2110G - Brief Calculus with Applications. Credits: 3

AND

- MAT 2120G - Finite Mathematics. Credits: 3
or
- MAT 2190G - Finite Mathematics, Honors. Credits: 3
OR
- MAT 2550 - Introduction to Linear Algebra. Credits: 3
(See footnote 1)

18-21 Semester Hours in the Following Courses:

(Students must choose at least **three** different subject areas):

- ECN 3970 - Study Abroad. Credits: 1 to 15
(See Footnote 8)
- FIN 4820 - International Finance. Credits: 3
(See Footnotes 6, 7)
- GEO 3050 - Geography and Culture of Africa. Credits: 3

- GEO 3055 - Geography and Culture of Asia. Credits: 3
- GEO 3060 - Geography and Culture of Europe. Credits: 3
- GEO 3070 - Geography and Culture of Mexico, Central America and Caribbean. Credits: 3
- GEO 3080 - Geography and Culture of South America. Credits: 3
- GEO 3620 - Geography of Tourism. Credits: 3
- GEO 3650 - Advanced Cultural Geography. Credits: 3
- GEO 39702 - Study Abroad in Geography. Credits: 1 to 15
(See Footnote 8)
- HIS 3110 - Britain 1688 to the Present. Credits: 3
- HIS 3260 - Modern Latin America. Credits: 3
- HIS 3320 - History of Modern China. Credits: 3
- HIS 3350 - Twentieth Century Russia. Credits: 3
- HIS 3450 - Modern Germany. Credits: 3
- HIS 3800 - U.S. Diplomatic History. Credits: 3
- HIS 3970 - Study Abroad. Credits: 1 to 15
(See Footnote 8)
- HIS 4820 - The World in the Twentieth Century. Credits: 3
- MGT 4600 - International Business Policy and Operation. Credits: 3
(See Footnotes 5, 7)
- PLS 2253G - Introduction to International Relations. Credits: 3
- PLS 3203 - American Foreign Policy. Credits: 3
- PLS 3223 - International Organizations. Credits: 3
- PLS 3303 - European Politics and Governments. Credits: 3
- PLS 3333 - Politics of Latin America and the Caribbean. Credits: 3
- PLS 3343 - Government and Politics of the Middle East. Credits: 3
- PLS 3353 - Politics of Sub-Saharan Africa. Credits: 3
- PLS 3363 - Government and Politics in Asia-Pacific Rim. Credits: 3
- PLS 3373 - International Political Economy. Credits: 3
- PLS 3970 - Study Abroad. Credits: 1 to 15
(See Footnote 8)
- PLS 4823 - International Policy Issues. Credits: 3
- PLS 4933 - Ideologies of the Developing World. Credits: 3

0-4 Semester Hours in Foreign Language at the Intermediate Level

Proficiency at the intermediate level of a Foreign Language or completion of courses in Foreign Language to include:

- FLF 2202G - Intermediate French II. Credits: 4
OR
- FLG 2202G - Intermediate German II. Credits: 4
OR
- FLS 2202G - Intermediate Spanish II. Credits: 4
OR
- FLS 2292G - Intermediate Spanish II, Honors. Credits: 4

Footnotes:

(Major GPA based on all economics courses taken at EIU.)

¹ It is strongly recommended that students complete Mathematics 2110G (or 1441G) and 2120G (or 2550) before enrolling in Economics courses numbered 4750 or above. Mathematics 1441G, 2550, 3701, and 3702 are recommended for those students who wish to enter Ph.D. programs in Economics. It is also strongly recommended that prospective Ph.D. students complete the entire calculus sequence by following Mathematics 1441G with Mathematics 2442 and 2443 which are the prerequisites for Mathematics 3701 and 3702, as well as the differential equations sequence, Mathematics 3501 and 3502.

² Substitution of Business 2810, Mathematics 3701, 3702 or other equivalent courses for Economics 3971 or Economics 3972 does not reduce the 33 semester hours required in Economics courses. That is, the student may need to add one or two elective ECN courses to his/her program.

³ Or Mathematics 3701 or Business 2810 or other equivalent courses subject to Economics Department approval.

⁴ Or Mathematics 3702.

- ⁵ Prerequisites: Junior standing; BUS 2101; BUS 2102; BUS 3710; ECN 2802G; BUS 3200 or ECN 3860; FIN 3730; and admission to the School of Business or permission of the Associate Chair.
- ⁶ Prerequisites: Junior standing; BUS 3200 or ECN 3860 or permission of the instructor; and admission to the School of Business or permission of the Associate Chair.
- ⁷ The MGT and FIN courses count as one subject area.
- ⁸ No more than six hours from Study Abroad will be counted towards completion of this option.

Economics Honors Program

To be admitted to the honors program, students must have at least a 3.50 grade-point average on a 4.0 point scale, permission of the Dean of the Honors College, and permission of the Departmental Honors Coordinator.

Students in the Economics Honors Program must maintain an overall GPA of 3.50. Students who have been dismissed from the program because their overall GPA has fallen below 3.50 may petition for readmission. Students must raise their GPA to 3.50 and submit their petition to the Dean of the Honors College and Departmental Honors Coordinator.

Departmental Honors Requirements

Honors students must complete the following:

Major Requirements

Complete the other requirements for the Economics major. The hours earned in Honors courses will count toward the hours requirement for the major.

9 Semester Hours in Economics Honors Courses

Nine semester hours in a combination of the following courses. Each course may be repeated for a maximum of six semester hours. Repeating a course must be approved by the Departmental Honors Coordinator.

- A graduate course approved by Departmental Honors Coordinator. Credits: 3
- ECN 4444 - Honors Independent Study. Credits: 3
- ECN 4666 - Honors Seminar. Credits: 3

3 Semester Hours in Economics Honors Thesis

- ECN 4644 - Honors Thesis. Credits: 3

Economics Minor

Total Semester Hours: 21 (See footnote 1)

- ECN 2801G - Principles of Macroeconomics. Credits: 3
- ECN 2802G - Principles of Microeconomics. Credits: 3

AND

- Electives in Economics (excluding Economics 2800G, 3970, and 4275). Credits: 15
- (See footnote 2)

Footnotes:

¹ Substitution of Business (2810), Mathematics (3701, 3702) or other equivalent courses for Economics 3971 or 3972 does not reduce the 21 semester hours required in Economics courses. That is, the student may need to add one or two elective ECN courses to his/her program.

² It is strongly recommended that students elect Economics 3971, 4801 and/or 4802. Also, it is strongly recommended that students complete Mathematics 2110G (or 1441G) and 2120G (or 2550) before enrolling in Economics courses numbered 4750 and above.

Department of Geology/Geography

Department Faculty

Diane Burns, Chairperson

Burns, D.; Cataneo, R.; Cornebise, M.; Craig, C.; Davis, J.; Kronenfeld, B.; Laingen, C.; Lewandowski, K.; Riley, J.; Smith, B.; Stimac, J.; Viertel, D.

Department Telephone: 217.581.2626

Geography: Environmental/Physical Geography Option (B.S.)

Total Semester Hours required for Degree: 120 semester hours

Semester Hours required for the Geography: Environmental/Physical Geography Option (B.S.) Major: 49 semester hours

The **Geography: Environmental/Physical Geography Option (B.S.)** Major requires students to fulfill a total of 49 semester hours. The core curriculum consists of 13 semester hours of required courses and 36 semester hours from department electives.

Required Courses: 13 hours

- GEO 1100G - Cultural Geography. Credits: 3
- GEO 1120G - The Natural Environment. Credits: 4
- GEO 3800 - Introduction to Cartography. Credits: 3
- GEO 3885 - Quantitative Methods in Geography. Credits: 3

Human/Regional Electives: 9 hours

- GEO 1200G - World Regional Geography. Credits: 3
- GEO 3000 - Geography of Illinois. Credits: 3
- GEO 3025 - Geography of the United States and Canada. Credits: 3
- GEO 3050 - Geography and Culture of Africa. Credits: 3
- GEO 3055 - Geography and Culture of Asia. Credits: 3
- GEO 3060 - Geography and Culture of Europe. Credits: 3
- GEO 3070 - Geography and Culture of Mexico, Central America and Caribbean. Credits: 3
- GEO 3080 - Geography and Culture of South America. Credits: 3
- GEO 3100 - Global Threats and Problems. Credits: 3
or
- CSC 3100 - Global Threats and Problems. Credits: 3
or
- ECN 3100 - Global Threats and Problems. Credits: 3
or
- PLS 3100 - Global Threats and Problems. Credits: 3
or
- SOC 3100 - Global Threats and Problems. Credits: 3
- GEO 3600 - Economic Geography. Credits: 3
- GEO 3620 - Geography of Tourism. Credits: 3
- GEO 3640 - Geography of Sports. Credits: 3
- GEO 3650 - Advanced Cultural Geography. Credits: 3
- GEO 3700 - Historical Geography of the United States. Credits: 3
- GEO 3750 - Population Geography. Credits: 3
- GEO 3775 - Urban Geography. Credits: 3
- GEO 40001 - Human Geography Seminar. Credits: 1-3
- STA 3970 - Study Abroad: Faculty-Led. Credits: 1 to 16

Environmental/Physical Electives: 18 hours

- GEO 1400G - Weather and Climate. Credits: 4
- GEO 2450G - Oceanography. Credits: 3
- GEO 3020 - Natural Disasters Credits: 3
- GEO 3200 - Human Impacts on the Environment. Credits: 3
- GEO 3115 - Introduction to Paleoclimate. Credits: 4
- GEO 3310 - Introduction to Biogeography. Credits: 3
- GEO 3320 - Natural Resource Management. Credits: 3
- GEO 3330 - Food and Agriculture. Credits: 3
- GEO 3340 - Land Change Science. Credits: 3
- GEO 3400 - Broadcast Meteorology Practicum. Credits: 3
- GEO 3410 - Climatology. Credits: 3
- GEO 3415 - The Restless Atmosphere. Credits: 3

- GEO 3420 - Geomorphology: Surficial Processes and Landforms. Credits: 3
- GEO 3500 - Climate, Environment and History Since the last Ice Age. Credits: 3
or
- HIS 3500 - Climate, Environment and History Since the last Ice Age. Credits: 3
- GEO 3550 - Surface Water Processes and Resources. Credits: 3
- GEO 40002 - Environmental/Physical Geography Seminar. Credits: 1-3
- GEO 44101 - Independent Study in Geography I. Credits: 1
or
- GEO 44102 - Independent Study in Geography II. Credits: 2
or
- GEO 44103 - Independent Study in Geography III. Credits: 3
- GEO 44401 - Undergraduate Research in Geography I. Credits: 1
or
- GEO 44402 - Undergraduate Research in Geography II. Credits: 2
or
- GEO 44403 - Undergraduate Research in Geography III. Credits: 3
- GEO 4850 - Environmental Geology. Credits: 3

Techniques Electives: 9 hours

- GEO 3780 - Land Use Planning. Credits: 3
- GEO 3810 - Introduction to Geographic Information Systems. Credits: 3
- GEO 3820 - Remote Sensing I. Credits: 3
- GEO 3830 - GIS: Building Geodatabases. Credits: 3
- GEO 3865 - Advanced Cartography. Credits: 3
- GEO 3870 - Remote Sensing II. Credits: 3
- GEO 3875 - Field Methods. Credits: 3
- GEO 40003 - Techniques Seminar. Credits: 1-3
- GEO 42851 - Internship in Geography I. Credits: 1 to 6
or
- GEO 42852 - Internship in Geography II. Credits: 1 to 6
or
- GEO 42853 - Internship in Geography III. Credits: 1 to 6
- GEO 4910 - GIS Programming. Credits: 4

Footnotes

Major GPA based on all required ESC, GEG, GEL and GEO courses taken at EIU.

Geography: Human Geography Option (B.S.)

Total Semester Hours required for Degree: 120 semester hours

Semester Hours required for the Geography: Human Geography Option (B.S.) Major: 49 semester hours

The [Geography: Human Geography Option \(B.S.\)](#) Major required students to fulfill a total of 49 semester hours. The core curriculum consists of 13 semester hours of required courses and 36 semester hours from department electives.

Required Courses: 13 hours

- GEO 1100G - Cultural Geography. Credits: 3
- GEO 1120G - The Natural Environment. Credits: 4
- GEO 3800 - Introduction to Cartography. Credits: 3
- GEO 3885 - Quantitative Methods in Geography. Credits: 3

Human/Regional Electives: 18 hours

- GEO 1200G - World Regional Geography. Credits: 3
- GEO 3000 - Geography of Illinois. Credits: 3
- GEO 3025 - Geography of the United States and Canada. Credits: 3
- GEO 3050 - Geography and Culture of Africa. Credits: 3
- GEO 3055 - Geography and Culture of Asia. Credits: 3
- GEO 3060 - Geography and Culture of Europe. Credits: 3
- GEO 3070 - Geography and Culture of Mexico, Central America and Caribbean. Credits: 3
- GEO 3080 - Geography and Culture of South America. Credits: 3
- GEO 3100 - Global Threats and Problems. Credits: 3
or
- CSC 3100 - Global Threats and Problems. Credits: 3
or
- ECN 3100 - Global Threats and Problems. Credits: 3
or
- PLS 3100 - Global Threats and Problems. Credits: 3
or
- SOC 3100 - Global Threats and Problems. Credits: 3
- GEO 3200 - Human Impacts on the Environment. Credits: 3
- GEO 3600 - Economic Geography. Credits: 3
- GEO 3620 - Geography of Tourism. Credits: 3
- GEO 3640 - Geography of Sports. Credits: 3
- GEO 3650 - Advanced Cultural Geography. Credits: 3
- GEO 3700 - Historical Geography of the United States. Credits: 3
- GEO 3750 - Population Geography. Credits: 3
- GEO 3775 - Urban Geography. Credits: 3
- GEO 40001 - Human Geography Seminar. Credits: 1-3
- GEO 44101 - Independent Study in Geography I. Credits: 1
or
- GEO 44102 - Independent Study in Geography II. Credits: 2
or
- GEO 44103 - Independent Study in Geography III. Credits: 3
or
- GEO 44401 - Undergraduate Research in Geography I. Credits: 1
or
- GEO 44402 - Undergraduate Research in Geography II. Credits: 2
or
- GEO 44403 - Undergraduate Research in Geography III. Credits: 3
- STA 3970 - Study Abroad: Faculty-Led. Credits: 1 to 16

Environmental/Physical Electives: 9 hours

- GEO 1400G - Weather and Climate. Credits: 4
- GEO 2450G - Oceanography. Credits: 3
- GEO 3020 - Natural Disasters Credits: 3
- GEO 3115 - Introduction to Paleoclimate. Credits: 4
- GEO 3310 - Introduction to Biogeography. Credits: 3
- GEO 3320 - Natural Resource Management. Credits: 3
- GEO 3330 - Food and Agriculture. Credits: 3
- GEO 3340 - Land Change Science. Credits: 3
- GEO 3400 - Broadcast Meteorology Practicum. Credits: 3
- GEO 3410 - Climatology. Credits: 3
- GEO 3415 - The Restless Atmosphere. Credits: 3
- GEO 3420 - Geomorphology: Surficial Processes and Landforms. Credits: 3
- GEO 3500 - Climate, Environment and History Since the last Ice Age. Credits: 3
or
- HIS 3500 - Climate, Environment and History Since the last Ice Age. Credits: 3
- GEO 3550 - Surface Water Processes and Resources. Credits: 3
- GEO 40002 - Environmental/Physical Geography Seminar. Credits: 1-3
- GEO 4850 - Environmental Geology. Credits: 3

Techniques Electives: 9 hours

- GEO 3780 - Land Use Planning. Credits: 3
- GEO 3810 - Introduction to Geographic Information Systems. Credits: 3
- GEO 3820 - Remote Sensing I. Credits: 3
- GEO 3830 - GIS: Building Geodatabases. Credits: 3
- GEO 3865 - Advanced Cartography. Credits: 3
- GEO 3870 - Remote Sensing II. Credits: 3
- GEO 3875 - Field Methods. Credits: 3
- GEO 40003 - Techniques Seminar. Credits: 1-3
- GEO 42851 - Internship in Geography I. Credits: 1 to 6
or
- GEO 42852 - Internship in Geography II. Credits: 1 to 6
or
- GEO 42853 - Internship in Geography III. Credits: 1 to 6
- GEO 4910 - GIS Programming. Credits: 4

Footnotes

Major GPA based on all required ESC, GEG, GEL and GEO courses taken at EIU.

Geography Teacher Licensure

See the Social Science Teaching Major program, (Geography Designation)

Geography Honors Program

Students in the Honors Program for Geography Majors must maintain a 3.5 cumulative GPA and complete all other requirements for the Geography major. Supervision of a student's course work in the Departmental Honors Program for Geography Majors will be undertaken by a faculty member after approval by the Departmental Honors Coordinator and Department Chairperson. It is highly recommended that students take Geography 4444x, 4555 and 4644 in consecutive semesters.

Departmental Honors Requirements

12 semester hours in a combination of the following courses:

- An approved graduate course. Credits: 1-3

- GEO 44441 - Honors Independent Study in Geography I. Credits: 1
or
- GEO 44442 - Honors Independent Study in Geography II. Credits: 2
or
- GEO 44443 - Honors Independent Study in Geography III. Credits: 3
- GEO 4555 - Honors Research in Geography. Credits: 1 to 6
- GEO 4644 - Honors Thesis in Geography. Credits: 1 to 6
- GEO 4666 - Honors Seminar in Geography. Credits: 3

Geography Minor

Total Hours: 22

The Geography Minor comprises:

Required Courses

- GEO 1100G - Cultural Geography. Credits: 3
- GEO 1120G - The Natural Environment. Credits: 4
- GEO 3800 - Introduction to Cartography. Credits: 3

12 additional semester hours

Hours must be in Geography; and must include at least 6 semester hours from courses numbered 3000 or above.

Geology (B.S.)

Total Semester Hours required for the Degree: 120 semester hours

Major

Semester hours required for the Geology Major: 73 semester hours

Required courses for all Geology Majors: 64 semester hours

- BIO 1001G - Biological Principles and Issues. Credits: 3
- CHM 1310G - General Chemistry I. Credits: 3
- CHM 1315G - General Chemistry Laboratory I. Credits: 1
- CHM 1410 - General Chemistry II. Credits: 3
- CHM 1415 - General Chemistry Laboratory II. Credits: 1
- GEO 1300G - Introduction to Earth Sciences. Credits: 4
or
- GEO 1320G - Geology of National Parks. Credits: 4
- GEO 3420 - Geomorphology: Surficial Processes and Landforms. Credits: 3
- GEO 1430 - Historical Geology. Credits: 4
- GEO 2440 - Mineralogy. Credits: 4
- GEO 3405 - Petrology. Credits: 4
- GEO 3430 - Structural Geology. Credits: 3
- GEO 3510 - Principles of Sedimentation. Credits: 3
- GEO 3560 - Principles of Stratigraphy. Credits: 3
- GEO 4490 - Invertebrate Paleontology. Credits: 3
- GEO 4800 - Summer Field Geology in the Black Hills, S.D. Credits: 6
- GEO 4850 - Environmental Geology. Credits: 3
- MAT 1441G - Calculus and Analytic Geometry I. Credits: 5
- PHY 1151G - Principles of Physics I. Credits: 3
- PHY 1152G - Principles of Physics I Laboratory. Credits: 1
- PHY 1161 - Principles of Physics II. Credits: 3
- PHY 1162 - Principles of Physics II Laboratory. Credits: 1

Major electives:

9 semester hours of electives must be taken from the following A and B lists:

A List

A minimum of 6 semester hours must be taken from the following courses:

- GEO 2100 - Geology of Energy Resources. Credits: 3
- GEO 3085 - Vertebrate Paleoenvironments and Paleocology. Credits: 3
- GEO 3115 - Introduction to Paleoclimate. Credits: 4
- GEO 3440 - Tectonics. Credits: 3
- GEO 3460 - Economic Mineral Deposits. Credits: 3
- GEO 3470 - Seminar in Geology. Credits: 1 to 3
- GEO 3505 - Volcanology. Credits: 3
- GEO 3525 - Hydrogeology. Credits: 3
- GEO 4200 - Introduction to Geophysical Exploration. Credits: 3
- GEO 4480 - Optical Mineralogy. Credits: 4

B List

A maximum of 3 semester hours can be used from the following courses to meet the elective requirement:

- GEO 3550 - Surface Water Processes and Resources. Credits: 3
- GEO 3800 - Introduction to Cartography. Credits: 3
- GEO 3810 - Introduction to Geographic Information Systems. Credits: 3
- GEO 3820 - Remote Sensing I. Credits: 3

Footnote:

(Major GPA based on all geology and required earth science and geography courses taken at EIU.)

Geology Honors Program

Departmental Honors Requirements

Twelve semester hours in a combination of the following courses: (Each course, except thesis, may be repeated for a maximum of six hours. Repetition of courses and graduate course selection must be approved by the Departmental Honors Coordinator.)

- A. Students must take GEO 4556, Honors Research in Geology and GEO 4645, Honors Thesis in Geology.
 - B. Students may select the following courses with the approval of the Departmental Honors Coordinator: GEO 4445x, GEO 4667x, and approved graduate course.
 - C. Students must complete the other requirements for the Geology major.
 - D. Students in the Geology Honors Program must maintain a cumulative grade-point average of 3.50.
 - E. Honors thesis supervision will be undertaken by a faculty member approved by the Departmental Chairperson, the Departmental Honors Coordinator, and the student's Faculty Advisor.
- Approved graduate course. Credits: 0-3
 - GEO 44451 - Honors Independent Study in Geology I. Credits: 1 or GEO 44452 or GEO 44453
 - GEO 4556 - Honors Research in Geology. Credits: 1 to 6
 - GEO 4645 - Honors Thesis in Geology. Credits: 1 to 6
 - GEO 46671 - Honors Seminar in Geology I. Credits: 1 to 6 or GEO 46672 or GEO 46673

Geology Minor

Total Semester Hours: 22

- Six semester hours in elective Geology courses numbered 3000 and above. Credits: 6
- GEO 1300G - Introduction to Earth Sciences. Credits: 4
or
- GEO 1320G - Geology of National Parks. Credits: 4
- GEO 1430 - Historical Geology. Credits: 4
- GEO 2440 - Mineralogy. Credits: 4
- GEO 3405 - Petrology. Credits: 4

Earth Science Teacher Licensure

See the Science with Teacher Licensure Major program, (Earth Sciences Designation).

Earth Science Minor

Total Hours: 20

- Any three-semester-hour 3000-4000 level course from Earth Science or Geology. Credits: 3
- GEO 1300G - Introduction to Earth Sciences. Credits: 4
OR
- GEO 1320G - Geology of National Parks. Credits: 4
OR
- GEO 1120G - The Natural Environment. Credits: 4
- GEO 1400G - Weather and Climate. Credits: 4
- GEO 2450G - Oceanography. Credits: 3
- GEO 3410 - Climatology. Credits: 3

AND

- GEO 2420 - Regional Geomorphology. Credits: 3
OR
- GEO 3420 - Geomorphology: Surficial Processes and Landforms. Credits: 3

Department of Mathematics & Computer Science

Department Faculty

Marshall Lassak, Chairperson

Alvarado, A.; Anderson, R.; Andrews, P.; Delman, C.; Galperin, G.; Gordon, Y.; Lakeland, G.; Mertz, A.; Parrish, A; Parwani, K.; Petrenko, B.; Van Cleave, N.; Wiles, P.

Department Telephone: 217.581.2028

Mathematics (B.A.)

Total Semester Hours required for the Degree: 120 semester hours

Major

Semester Hours required for the Mathematics Major: 53-55 semester hours depending on Concentration

The Mathematics major comprises the following courses and one of the concentrations listed below. An upper division writing intensive course is required.

Required courses for both Mathematics Major Concentrations (30 Hours)

- MAT 1441G - Calculus and Analytic Geometry I. Credits: 5
- CSM 2170 - Computer Science I. Credits: 4
- MAT 2442 - Calculus and Analytic Geometry II. Credits: 5
- MAT 2443 - Calculus and Analytic Geometry III. Credits: 4
- MAT 2550 - Introduction to Linear Algebra. Credits: 3
- MAT 2800 - Foundations of Mathematics. Credits: 3
- MAT 3530 - Abstract Algebra. Credits: 4
- MAT 3800 - Seminar in Mathematics. Credits: 2

Pure Mathematics Concentration Requirements

Pure Mathematics Core (11 hours)

- MAT 4760 - Linear Algebra. Credits: 4
- MAT 4855 - Introduction to Topology. Credits: 3
- MAT 4860 - Mathematical Analysis. Credits: 4

Electives From: (12 Hours)

- MAT 3271 - College Geometry I. Credits: 3
- MAT 3272 - College Geometry II. Credits: 3
- MAT 3501 - Differential Equations I. Credits: 3
- MAT 3502 - Differential Equations II. Credits: 3
- MAT 3701 - Probability and Statistics I. Credits: 3
- MAT 3702 - Probability and Statistics II. Credits: 3
- CSM 3770 - Combinatorial Computing. Credits: 3
- MAT 4335 - Topics in Mathematics. Credits: 3
- MAT 4750 - Linear Programming. Credits: 3
- MAT 4830 - Introduction to Complex Analysis with Applications. Credits: 3
- CSM 4885 - Theory of Computation. Credits: 3
- MAT 4910 - Number Theory. Credits: 3

Applied Mathematics Concentration Requirements

Applied Mathematics Core (12 Hours)

- MAT 3501 - Differential Equations I. Credits: 3
- CSM 3570 - Numerical Analysis. Credits: 3
- MAT 3701 - Probability and Statistics I. Credits: 3
- MAT 3702 - Probability and Statistics II. Credits: 3

Electives From: (11-13 Hours)

- CSM 2670 - Computer Science II. Credits: 4
- MAT 3502 - Differential Equations II. Credits: 3
- CSM 3770 - Combinatorial Computing. Credits: 3
- MAT 4345 - Topics in Applied Mathematics. Credits: 3
- MAT 4750 - Linear Programming. Credits: 3
- MAT 4760 - Linear Algebra. Credits: 4
- MAT 4780 - Mathematics of Interest. Credits: 3
- MAT 4830 - Introduction to Complex Analysis with Applications. Credits: 3
- MAT 4860 - Mathematical Analysis. Credits: 4

Footnotes:

(Major GPA based on all mathematics and computer science courses taken at EIU.)

Mathematics with Teacher Licensure Option (B.A.)

Total Semester Hours required for the Degree: 120 semester hours

A major in Mathematics (BA with Teacher Licensure) prepares students to become secondary (9-12) teachers in the state of Illinois.

This major requires that students follow and meet the requirements for Admission, Retention and Graduation from Teacher Licensure programs as described in the "Teacher Licensure Programs" section of this catalog and as explained at the University Admission to Teacher Education Meeting which all students must attend. Students should gain University Approval to Take Teacher Education Courses no later than the end of their first semester Junior year in order to use this suggested plan. Additional information on Admission, Retention and Graduation for Teacher Licensure programs can be found on the College of Education & Professional Studies website at www.eiu.edu/ceps/teached.

All students must pass the Illinois Licensure Test of Academic Proficiency (TAP). Students can substitute ACT plus Writing or SAT scores for the TAP if they meet the minimum scores set by the Illinois State Board of Education. These scores can be found at <http://www.eiu.edu/ceps/teached> or by contacting the CEPS Dean's Office. Students should complete this requirement no later than their sophomore year.

Students must receive a "C" or better in all courses used toward graduation, regardless of where they are taken. This includes general education, professional education, major and minor courses, all university required courses, and electives. Students must maintain a minimum cumulative and major GPA of 2.65 in order to continue in the program.

Students must complete the professional education coursework following the Regular Secondary Education Professional Education Course Sequence. Information is also available in the Teacher Licensure Program section of this catalog.

Students must pass the edTPA (teacher performance assessment) before they can receive their teaching license from Illinois or any other state. Students will make their edTPA submission during student teaching.

For students also wanting to be eligible to teach middle school mathematics, additional Middle Level Education courses are required.

Major

Semester Hours required for the Mathematics with Teacher Licensure Major: 84 semester hour

Mathematics and Computer Science Courses (50 Hours)

- MAT 1441G - Calculus and Analytic Geometry I. Credits: 5
- CSM 2170 - Computer Science I. Credits: 4
- MAT 2270 - Technology in Mathematics. Credits: 3
- MAT 2400 - Introduction to Teaching Secondary Mathematics. Credits: 1
- MAT 2442 - Calculus and Analytic Geometry II. Credits: 5
- MAT 2443 - Calculus and Analytic Geometry III. Credits: 4
- MAT 2550 - Introduction to Linear Algebra. Credits: 3
- MAT 2800 - Foundations of Mathematics. Credits: 3
- MAT 3271 - College Geometry I. Credits: 3
- MAT 3272 - College Geometry II. Credits: 3
- MAT 3400 - Teaching Secondary Mathematics. Credits: 3
- MAT 3530 - Abstract Algebra. Credits: 4
- MAT 3701 - Probability and Statistics I. Credits: 3
- MAT 3702 - Probability and Statistics II. Credits: 3
- MAT 4900 - History of Mathematics. Credits: 3

Professional Education Core (34 Hours)

- EDF 2555G - Education in a Diverse Society: The Multilingual/Multicultural Classroom. Credits: 3
(May also be used to satisfy General Education (Social and Behavioral Sciences) and Diversity requirement.)
- EDF 4550 - Critical Focus on Education. Credits: 3
(EDF 4450 may be substituted for EDF 4550 if taken prior to Fall 2013)
- EDP 2330 - Educational Psychology: Foundations for Teachers. Credits: 3
(EDP 3331 may be substituted for EDP 2330 if taken prior to Fall 2016.)
- SED 2000 - Inquiry Into Teaching. Credits: 2
- SED 3330 - Instructional Tasks in the Secondary School. Credits: 4
- SED 4330 - Literacy, Assessment, and Differentiation in Secondary Schools. Credits: 3
- SPE 3500 - The Education of Individuals with Exceptional Learning Needs: Access to the General Curriculum. Credits: 3

- STG 4000 - Multicultural/Disabilities Practicum. Credits: 1
- STG 4001 - Student Teaching. Credits: 12 to 16
(Register for 12 semester hours)

Additional Hours in General Education to Complete the University Requirement

Footnote:

Major GPA based on all mathematics and computer science courses taken at EIU except for

- Any course considered a prerequisite for MAT 1441G (e.g. MAT 1270, MAT 1271, MAT 1400).
- Any course intended for elementary/middle level majors (e.g. MAT 1420, MAT 2420G, MAT 2620, MAT 3420, MAT 3620, MAT 4810, MAT 4920).
- Any course that may have content similar to content from a required degree course (e.g. CSM 2345, MAT 2250G, MAT 2110G).

Mathematics and Computer Science Honors Program

Admission to the Mathematics and Computer Science Departmental Honors Program will be open to students who have at least a 3.50 GPA, on a 4.0 scale, for all classes, over at least 12 semester hours of work in residence at EIU, and who have the permission of the Dean of the Honors College and the Departmental Honors Coordinator. Mathematics 2800 (for Mathematics Majors) or 2345 (for Mathematics and Computer Science Majors) must be completed prior to admission.

Students in the Mathematics and Computer Science Honors Program must maintain an **overall** GPA of 3.50. Students who have been dismissed from the program because their overall GPA has fallen below 3.50 may petition for readmission. Students must raise their GPA to 3.50 and submit their petition to the Dean of the Honors College and the Departmental Honors Coordinator.

Departmental Honors Requirements

Honors thesis supervision will be undertaken by a faculty member approved by the Departmental Honors Coordinator, the student's Faculty Advisor, and the Departmental Chairperson. The thesis must be submitted and defended in accordance with the Senior Thesis Guide and must be signed by the thesis supervisor.

A graduate course (5000+) may fulfill 3 of the above 12 hours with permission of the Dean of the Honors College, the Departmental Honors Coordinator, and the Graduate Coordinator. (A graduate course may **not** replace Mathematics 4644.)

Students in the departmental honors program must complete all requirements for graduation with a degree in Mathematics, Mathematics with Teacher Licensure, or Mathematics and Computer Science. The following substitutions may be made:

A mathematics honors seminar in any area may be substituted for the major requirement in that area, or for any elective towards the major, with permission of the Department Honors Coordinator and the Departmental Chairperson. (Example: An honors seminar in Probability may be substituted for Mathematics 3701.)

A mathematics graduate course (5000+) in any area may be substituted for the major requirement in that area with permission of the Departmental Honors Coordinator and the Departmental Chairperson.

At least 12 hours, which must include Mathematics 4644, from among the following Honors courses:

- MAT 44441 - Independent Study, Honors I. Credits: 1 to 3 or MAT 44442
- MAT 45551 - Honors Research I. Credits: 1 to 3 or MAT 45552
- MAT 4644 - Honors Thesis. Credits: 3 required
- MAT 4666 - Honors Seminar. Credits: 2 to 4

Mathematics Minor

Semester Hours required for the Mathematics Minor: 23 semester hours

Minor

Required Mathematics Courses (14 Hours)

- MAT 1441G - Calculus and Analytic Geometry I. Credits: 5
- MAT 2442 - Calculus and Analytic Geometry II. Credits: 5
- MAT 2443 - Calculus and Analytic Geometry III. Credits: 4

Electives in Mathematics (9 Hours)

Electives in mathematics and computer science selected in consultation with a math advisor. These may be any course numbered 2170 or above, with at least six sem. hrs. numbered 3000 or above, but excluding 3400, 3420, 3620.

Mathematics Minor for Teacher Licensure

Completion of a teacher licensure minor does not guarantee that the individual will be granted an endorsement to teach in that field. Individuals must meet all requirements (including state tests) as set forth by the Illinois State Board of Education to be granted an endorsement in a second teaching field.

Minor

Semester Hours required for the Mathematics Minor for Teacher Licensure: 35 semester hours

- MAT 1441G - Calculus and Analytic Geometry I. Credits: 5
- CSM 2170 - Computer Science I. Credits: 4
- MAT 2270 - Technology in Mathematics. Credits: 3
- MAT 2400 - Introduction to Teaching Secondary Mathematics. Credits: 1
- MAT 2442 - Calculus and Analytic Geometry II. Credits: 5
- MAT 2550 - Introduction to Linear Algebra. Credits: 3
- MAT 2800 - Foundations of Mathematics. Credits: 3
- MAT 3271 - College Geometry I. Credits: 3
- MAT 3400 - Teaching Secondary Mathematics. Credits: 3
- MAT 3530 - Abstract Algebra. Credits: 4

Computer Science (B.S.)

Total Semester Hours required for the Degree: 120 semester hours

Major

Semester Hours required for the Computer Science Major: 76-78 semester hours

The Computer Science major comprises a required upper-division writing intensive course and the following:

Computer Science Core (66-68 Hours)

- MAT 1441G - Calculus and Analytic Geometry I. Credits: 5
- CSM 2170 - Computer Science I. Credits: 4
- MAT 2345 - Elements of Discrete Mathematics. Credits: 3
- MAT 2442 - Calculus and Analytic Geometry II. Credits: 5
- MAT 2550 - Introduction to Linear Algebra. Credits: 3
- CSM 2670 - Computer Science II. Credits: 4
- CSM 3570 - Numerical Analysis. Credits: 3
- CSM 3670 - Principles of Computer Systems. Credits: 3
- MAT 3701 - Probability and Statistics I. Credits: 3
- CSM 3770 - Combinatorial Computing. Credits: 3
- CSM 3870 - Data Structures. Credits: 3
- CSM 3950 - Introduction to Database Concepts. Credits: 3
- CSM 3980 - Parallel Programming. Credits: 3
- CSM 4270 - Design of Programming Languages. Credits: 3
- CSM 42751 - Internship in Computer Science I. Credits: 1 to 15 or CSM 42752 (3 to 5 hours)
- CSM 4880 - Design and Analysis of Algorithms. Credits: 3
- CSM 4885 - Theory of Computation. Credits: 3
- CSM 4970 - Principles of Operating Systems. Credits: 3
- CSM 4980 - Networking and Distributed Computing. Credits: 3
- CSM 4985 - Artificial Intelligence and Machine Learning. Credits: 3

Electives From: (10 Hours)

- CSM 3070 - Competitive Programming. Credits: 1 (may be taken twice for credit.)
- MAT 3501 - Differential Equations I. Credits: 3
- MAT 3502 - Differential Equations II. Credits: 3
- MAT 3530 - Abstract Algebra. Credits: 4
- MAT 3702 - Probability and Statistics II. Credits: 3
- CSM 4170 - Programming for Mobile Devices. Credits: 3
- CSM 4370 - Topics in Computer Science. Credits: 3
- MAT 4750 - Linear Programming. Credits: 3
- MAT 44441 - Independent Study, Honors I. Credits: 1 to 3
- MAT 44442 - Independent Study, Honors II. Credits: 1 to 3
- MAT 44901 - Independent Study I. Credits: 1 to 3
- MAT 44902 - Independent Study II. Credits: 1 to 3
- CSM 4873 - Introduction to Cryptography. Credits: 3
- PHY 3150 - Electronics. Credits: 4

Footnotes:

(Major GPA based on those courses listed above taken at EIU.)

Department of Nursing

Department Faculty

Renee Kidd-Marshall, Director

Gosse, C.; Farley, H.

Department Telephone: 217.581.7049

Nursing (B.S.)

Total Semester Hours required for the Degree: 120 semester hours

The RN to BS Nursing Program is committed to offering superior, accessible undergraduate nursing education for registered nurses pursuing a bachelor's of science degree with a major in nursing. The courses are taught via distance education to accommodate the schedules of working professionals.

Admission to the Nursing Major

Enrollment in RN to BS nursing courses is limited to students who have been admitted to the nursing major. A complete Application for the RN to BS in Nursing Program Admission must be on file in the nursing office to be considered for admission to the major. Admission decisions are made by a nursing committee and are competitive.

Provisional Admission to the Nursing Major

Provisional admission to the major is available to students from community colleges where EIU has a Dual Track Agreement in place. Students from these community colleges may apply for provisional admission. Students provisionally admitted to the Nursing major may enroll in EIU coursework as provided in the dual track agreement. Full unconditional admission will be granted when students meet the RN to BS in Nursing program requirements. For information about the Dual Track Agreements and community colleges participating in the agreements, contact the Nursing Program office at EIU, 217-581-7049.

Criteria for Admission to the Major:

1. Unconditional admission to the University
2. Complete Application for the RN to BS in Nursing Program
3. Achievement of a cumulative GPA of 2.5 or higher
4. RN license from state of residence
5. Current CPR certification for the professional provider
6. Documentation of health requirements
7. Two professional references
8. Professional statement
9. Professional Liability Insurance
10. Certified Background Check
11. Completion of the following courses or their equivalents with a grade of 'C' or better:
 - BIO 2001G - Human Physiology. Credits: 4
and BIO 2220 - Anatomy and Physiology II. Credits: 4
or
 - BIO 2210 - Anatomy and Physiology I. Credits: 4
and BIO 2220 - Anatomy and Physiology II. Credits: 4
 - ENG 1001G - College Composition I: Critical Reading & Source-Based Writing. Credits: 3
 - ENG 1002G - College Composition II: Argument & Critical Inquiry. Credits: 3
 - FCS 1800 - Lifespan Human Development. Credits: 3
 - PSY 1879G - Introductory Psychology. Credits: 3
 - SOC 1838G - Introductory Sociology. Credits: 3

AND

- CHM 1040G - The World of Chemistry. Credits: 4

OR

- CHM 3025G - The Chemistry in Your Life. Credits: 3

OR

- CHM 1310G - General Chemistry I. Credits: 3
AND
- CHM 1315G - General Chemistry Laboratory I. Credits: 1

OR

- PHY 1051G - Physics of the Modern World. Credits: 3

OR

- PHY 1052G - Adventures in Physics. Credits: 3
AND
- PHY 1053G - Adventures in Physics Laboratory. Credits: 1

OR

- PHY 1151G - Principles of Physics I. Credits: 3
AND
- PHY 1152G - Principles of Physics I Laboratory. Credits: 1

Registration for Upper Division Nursing Courses:

Only students admitted to the nursing major will be approved to register for upper division (3000 or higher) nursing courses.

Application Deadlines:

Applications for the RN to BS in Nursing Program are available in the Nursing Office, Room 2230, McAfee Building or on the nursing program website. Applications and documentation of all admission requirements must be submitted to the Nursing Office on or before July 1st for admission to fall nursing courses and November 15th for admission to spring nursing courses.

General Education Requirements

Foundational Courses (Writing-6, Speaking-3, Math-3)	12 hours
Quantitative Reasoning in Natural Sciences	7 hours
Citizenship in Social and Behavioral Sciences	9 hours
Communication in Humanities and Fine Arts	9 hours
Senior Seminar or Study Abroad Capstone	3 hours
Total	40 hours

Major Requirements:**Semester Hours required for the Major: 42 semester hours**

The major in Nursing comprises:

- Professional Elective. Credits: 3
- BIO 1004G - Practical Microbiology. Credits: 3
- MAT 2250G - Elementary Statistics. Credits: 4
- NUR 3103 - Theoretical Foundations of Professional Nursing Practice. Credits: 3
- NUR 3303 - Advanced Nursing Health Assessment. Credits: 3
- NUR 3604 - Pathophysiology and Pharmacology in Professional Nursing Practice. Credits: 4
- NUR 3703 - Research in Professional Nursing. Credits: 3
- NUR 4106 - Leadership and Management in Nursing. Credits: 6
- NUR 4203 - Nursing, Health Care, Policies, and Politics. Credits: 3
- NUR 4506 - Nursing and the Community. Credits: 6
- NUR 4604 - Professional Seminar. Credits: 4
- OPD 3000 - Learning Analysis Through Portfolio Development. Credits: 3
(See Footnote 2)
(Optional, could be used to satisfy professional elective)

Progression Requirements:

1. Students enrolled in the RN to BS in Nursing Program must earn a 'C' or better in all major requirement courses to progress in the program.
2. Students must achieve a satisfactory for the clinical component of each nursing course.
3. Students must maintain a cumulative grade point average of at least 2.00 throughout their enrollment in the RN to BS in Nursing Program.³
4. A nursing course in which a student failed to earn a grade of 'C' or better may be repeated by the student only one time. Failure to receive a grade of 'C' or better for a second time of any nursing course will result in dismissal from the program.
5. Failure to earn a 'C' or better in any two nursing courses within the RN to BS in Nursing curriculum will result in dismissal from the program.

Footnotes:

¹ This major does not require the completion of a foreign language through high school or college work as a graduation requirement. Of the 120 semester hours required to complete the degree, at least 25 semester hours earned at EIU must be included.

² Based on recommendations developed while enrolled in OPD 3000 Portfolio Development, students may prepare and submit a portfolio which explicitly describes college-level learning based on prior occupational experiences. This credit may be granted via OPD 3200 or 3300.

³ Major GPA based on all nursing courses taken at EIU.

Department of Physics

Department Faculty

Steven Daniels, Chairperson

Adjibade, A.; Brandt, D.; Daniels, S.; Holmes, R.; Linton, D.; Pakey, D.; Zou, J.

Department Telephone: 217.581.3220

Physics (B.S.)

Major

Total Semester Hours required for the Degree: 120 semester hours

Minimum Semester Hours required for the Physics Major: 74 semester hours

The Physics major comprises the following courses:

Students who have completed college-level, algebra-based physics courses (e.g., PHY 1151G, 1152G, 1161, 1162) should consult the department chair.

- CHM 1310G - General Chemistry I. Credits: 3
- CHM 1315G - General Chemistry Laboratory I. Credits: 1
- CHM 1410 - General Chemistry II. Credits: 3
- CHM 1415 - General Chemistry Laboratory II. Credits: 1
- MAT 1441G - Calculus and Analytic Geometry I. Credits: 5
- MAT 2442 - Calculus and Analytic Geometry II. Credits: 5
- MAT 2443 - Calculus and Analytic Geometry III. Credits: 4
- MAT 3501 - Differential Equations I. Credits: 3
- MAT 3502 - Differential Equations II. Credits: 3
- PHY 1351G - General Physics I. Credits: 3
(See footnote 1)
- PHY 1352G - General Physics I Laboratory. Credits: 1
(See footnote 1)
- PHY 1361 - General Physics II. Credits: 3
- PHY 1362 - General Physics II Laboratory. Credits: 1
- PHY 1371 - General Physics III. Credits: 3
- PHY 1372 - General Physics III Laboratory. Credits: 1
- PHY 2390 - Statics. Credits: 3
- PHY 2400 - Dynamics. Credits: 3
- PHY 3080 - Modern Physics I. Credits: 3
- PHY 3150 - Electronics. Credits: 4
- PHY 3410 - Electricity and Magnetism I. Credits: 3
- PHY 3420 - Electricity and Magnetism II. Credits: 3
- PHY 4000 - Seminar in Physics. Credits: 1
- PHY 4010 - Seminar in Physics. Credits: 1
- PHY 4711 - Experimental Physics I. Credits: 1
- PHY 4712 - Experimental Physics II. Credits: 1
- PHY 4713 - Experimental Physics III. Credits: 1
- PHY 4850 - Quantum Mechanics and Atomic Physics I. Credits: 4

Electives

And 6 semester hours of PHY electives, selected from the list below:

- PHY 3010* - Special Topics in Physics. Credits: 1 to 3
*Course Numbers: PHY 3010 D-F, H-M, O-R, T-Z
- PHY 3270 - Introduction to Circuit Analysis. Credits: 4
- PHY 3300 - Advanced Classical Mechanics. Credits: 3
- PHY 3320 - Computational Methods in Physics and Engineering. Credits: 4
- PHY 3350 - Introduction to Solid State Physics. Credits: 3
- PHY 4100 - Astrophysics. Credits: 3
- PHY 4444A - Honors Independent Study A. Credits: 3
or PHY 4444B or PHY 4444D
(See footnote 2)
- PHY 4470 - Optics. Credits: 4
- PHY 4555 - Honors Research. Credits: 3
(See footnote 2)

- PHY 4601A - Research in Physics 1A. Credits: 1 or PHY 4601B or PHY 4601D or PHY 4601E (See footnote 2)
- PHY 4602A - Research in Physics 2A. Credits: 2 or PHY 4602B or PHY 4602D or PHY 4602E (See footnote 2)
- PHY 4603A - Research in Physics 3A. Credits: 3 or PHY 4603B or PHY 4603D or PHY 4603E (See footnote 2)
- PHY 4750 - Thermodynamics and Statistical Mechanics. Credits: 4
- PHY 4800* - Advanced Independent Study. Credits: 1 to 6
*Course Numbers: PHY 4800A, B, D-F, H-M, O-R, T-Z (See footnote 2)
- PHY 4860 - Quantum Mechanics and Atomic Physics II. Credits: 2
- PHY 4870 - Mathematical Methods of Physics. Credits: 3

Footnotes:

(Major GPA based on all physics courses taken at EIU.)

¹ PHY 1391, General Physics I, Honors, and PHY 1392, General Physics I Laboratory, Honors, may be taken in place of PHY 1351 and PHY 1352.

² No more than 3 semester hours of PHY 4444*, PHY 4555, PHY 4600, 4601*, 4602*, 4603* and PHY 4800* in aggregate will count towards the Physics concentration electives.

Physics: Applied Physics Option (B.S.)

Total Semester Hours required for the Degree: 120 semester hours

Minimum Semester Hours required for the Physics: Applied Physics Option: 60 semester hours

The applied physics option is for students interested in quantitative applications of the laws of physics to a number of applied areas including electronics, geosciences and solid-state physics.

Core Requirements

Requirements include:

- CHM 1310G - General Chemistry I. Credits: 3
- CHM 1315G - General Chemistry Laboratory I. Credits: 1
- CHM 1410 - General Chemistry II. Credits: 3
- CHM 1415 - General Chemistry Laboratory II. Credits: 1
- GEO 3010G - Environmental Physical Sciences. Credits: 3
- MAT 1441G - Calculus and Analytic Geometry I. Credits: 5
- CSM 2170 - Computer Science I. Credits: 4
- MAT 2442 - Calculus and Analytic Geometry II. Credits: 5
- MAT 2443 - Calculus and Analytic Geometry III. Credits: 4
- MAT 3501 - Differential Equations I. Credits: 3
- PHY 1351G - General Physics I. Credits: 3
(See Footnote 1)
- PHY 1352G - General Physics I Laboratory. Credits: 1
(See Footnote 1)
- PHY 1361 - General Physics II. Credits: 3
- PHY 1362 - General Physics II Laboratory. Credits: 1
- PHY 1371 - General Physics III. Credits: 3
- PHY 1372 - General Physics III Laboratory. Credits: 1
- PHY 2390 - Statics. Credits: 3
- PHY 3080 - Modern Physics I. Credits: 3
- PHY 3150 - Electronics. Credits: 4
- PHY 4470 - Optics. Credits: 4
- PHY 4711 - Experimental Physics I. Credits: 1
- PHY 4712 - Experimental Physics II. Credits: 1

Footnotes:

(Major GPA based on all physics courses taken at EIU)

¹PHY 1391, General Physics I, Honors, and PHY 1392, General Physics I Laboratory, Honors, may be taken in place of PHY 1351 and PHY 1352.

Physics: Astronomy Option (B.S.)

Total Semester Hours required for the Degree: 120 semester hours

Minimum Semester Hours required for the Physics: Astronomy Option: 57 semester hours

The Astronomy option is a 4-year degree program for students interested in obtaining a B.S. degree in Physics with a concentration in astronomy. This option is for students desiring a liberal arts background in theoretical and experimental physics, as well as a background in astronomy.

Core Requirements

Requirements include:

- MAT 1441G - Calculus and Analytic Geometry I. Credits: 5
- MAT 2442 - Calculus and Analytic Geometry II. Credits: 5
- MAT 2443 - Calculus and Analytic Geometry III. Credits: 4
- PHY 1055G - Principles of Astronomy. Credits: 3
or PHY 1095G
- PHY 1056G - Principles of Astronomy Laboratory. Credits: 1
or PHY 1096G
- PHY 1351G - General Physics I. Credits: 3
or PHY 1391G
- PHY 1352G - General Physics I Laboratory. Credits: 1
or PHY 1392G
- PHY 1361 - General Physics II. Credits: 3
- PHY 1362 - General Physics II Laboratory. Credits: 1
- PHY 1371 - General Physics III. Credits: 3
- PHY 1372 - General Physics III Laboratory. Credits: 1
- PHY 2601A - Introductory Research in Physics 1A. Credits: 1
or PHY 2601B or PHY 2601D
OR
- PHY 2602A - Introductory Research in Physics 2A. Credits: 2
or PHY 2602B or PHY 2602D
OR
- PHY 2603A - Introductory Research in Physics 3A. Credits: 3
or PHY 2603B or PHY 2603D
- PHY 3080 - Modern Physics I. Credits: 3
- PHY 3100 - Astronomical Techniques. Credits: 3
- PHY 3150 - Electronics. Credits: 4
- PHY 4100 - Astrophysics. Credits: 3
- PHY 4470 - Optics. Credits: 4

Electives

3 semester hours chosen from the list below:

- CSM 2170 - Computer Science I. Credits: 4
- MAT 2550 - Introduction to Linear Algebra. Credits: 3
- MAT 3501 - Differential Equations I. Credits: 3

And 6 semester hours chosen from the following:

- PHY 3300 - Advanced Classical Mechanics. Credits: 3
- PHY 3320 - Computational Methods in Physics and Engineering. Credits: 4
- PHY 3410 - Electricity and Magnetism I. Credits: 3
- PHY 3420 - Electricity and Magnetism II. Credits: 3
- PHY 4444A - Honors Independent Study A. Credits: 3
or PHY 4444B or PHY 4444D
(See Footnote 1)
- PHY 4555 - Honors Research. Credits: 3
(See Footnote 1)

- PHY 4601A - Research in Physics 1A. Credits: 1 or PHY 4601B or PHY 4601D, or PHY 4601E (See Footnote 1)
- PHY 4602A - Research in Physics 2A. Credits: 2 or PHY 4602B or PHY 4602D, or PHY 4602E (See Footnote 1)
- PHY 4603A - Research in Physics 3A. Credits: 3 or PHY 4603B or PHY 4603D, or PHY 4603E (See Footnote 1)
- PHY 4750 - Thermodynamics and Statistical Mechanics. Credits: 4
- PHY 4800* - Advanced Independent Study. Credits: 1 to 6
*Course Numbers: PHY 4800A, B, D-F, H-M, O-R, T-Z (See Footnote 1)
- PHY 4850 - Quantum Mechanics and Atomic Physics I. Credits: 4
- PHY 4860 - Quantum Mechanics and Atomic Physics II. Credits: 2
- PHY 4870 - Mathematical Methods of Physics. Credits: 3

Footnote:

¹ No more than 2 semester hours of PHY 4444*, PHY 4555, PHY 4600, 4601*, 4602*, 4603* and PHY 4800* in aggregate will count towards the Astronomy Option electives.

(Major GPA based on all physics courses taken at EIU.)

Physics: Computational Physics Option (B.S.)

Total Semester Hours required for the Degree: 120 semester hours

Minimum Semester Hours required for the Physics: Computational Physics Option: 74 semester hours

The Computational Physics option is designed for students interested in the computational approach to solving complex problems in physics. Students gain experience in computer modeling and simulation of a wide variety of systems in physics and engineering. It is designed for students who seek industrial employment or graduate study in a computational field.

Core Requirements

Requirements include:

- CHM 1310G - General Chemistry I. Credits: 3
- CHM 1315G - General Chemistry Laboratory I. Credits: 1
- MAT 1441G - Calculus and Analytic Geometry I. Credits: 5
- CSM 2170 - Computer Science I. Credits: 4
- MAT 2442 - Calculus and Analytic Geometry II. Credits: 5
- MAT 2443 - Calculus and Analytic Geometry III. Credits: 4
- MAT 2550 - Introduction to Linear Algebra. Credits: 3
- MAT 3501 - Differential Equations I. Credits: 3
- PHY 1351G - General Physics I. Credits: 3
or PHY 1391G
- PHY 1352G - General Physics I Laboratory. Credits: 1
or PHY 1392G
- PHY 1361 - General Physics II. Credits: 3
- PHY 1362 - General Physics II Laboratory. Credits: 1
- PHY 1371 - General Physics III. Credits: 3
- PHY 1372 - General Physics III Laboratory. Credits: 1
- PHY 2390 - Statics. Credits: 3
- PHY 2400 - Dynamics. Credits: 3
- PHY 3080 - Modern Physics I. Credits: 3
- PHY 3320 - Computational Methods in Physics and Engineering. Credits: 4
- PHY 3410 - Electricity and Magnetism I. Credits: 3
- PHY 4000 - Seminar in Physics. Credits: 1
- PHY 4010 - Seminar in Physics. Credits: 1
- PHY 4320 - Computational Physics. Credits: 4
- PHY 4601A - Research in Physics 1A. Credits: 1
or PHY 4601B or PHY 4601D or PHY 4601E
OR
- PHY 4602A - Research in Physics 2A. Credits: 2
or PHY 4602B or PHY 4602D or PHY 4602E
OR
- PHY 4603A - Research in Physics 3A. Credits: 3
or PHY 4603B or PHY 4603D or PHY 4603E
- PHY 4711 - Experimental Physics I. Credits: 1
or PHY 4712
- PHY 4850 - Quantum Mechanics and Atomic Physics I. Credits: 4

Electives:

And 6-8 hours of electives chosen from the list below:

- PHY 3270 - Introduction to Circuit Analysis. Credits: 4
- PHY 3300 - Advanced Classical Mechanics. Credits: 3
- PHY 3350 - Introduction to Solid State Physics. Credits: 3
- PHY 3420 - Electricity and Magnetism II. Credits: 3
- PHY 4100 - Astrophysics. Credits: 3
- PHY 4444A - Honors Independent Study A. Credits: 3
or PHY 4444B or PHY 4444D
(See Footnote 1)

- PHY 4470 - Optics. Credits: 4
- PHY 4555 - Honors Research. Credits: 3
(See Footnote 1)
- PHY 4750 - Thermodynamics and Statistical Mechanics. Credits: 4
- PHY 4800* - Advanced Independent Study. Credits: 1 to 6
*Course Numbers: PHY 4800A, B, D-F, H-M, O-R, T-Z
(See Footnote 1)
- PHY 4860 - Quantum Mechanics and Atomic Physics II. Credits: 2
- PHY 4870 - Mathematical Methods of Physics. Credits: 3

Footnote:

¹ No more than 3 semester hours of PHY 4444*, PHY 4555, and PHY 4800* in aggregate will count towards the Computational Physics concentration electives.

(Major GPA based on all physics courses taken at EIU.)

Physics: Engineering Physics Option (B.S.)

Total hours to degree: 94 (total does not include completion of required engineering degree elsewhere)

Minimum Semester Hours required for the Physics: Engineering Physics Option: 63 semester hours

(See also "Pre-Engineering Program" and "Engineering")

This cooperative degree program requires about three years of work at EIU followed by two years of work at the University of Illinois at Urbana-Champaign (UIUC). This program is designed to combine studies in Physics and Engineering, producing workers with greater versatility and broader skills, making them more attractive to employers of scientists and engineers. Upon completion of the program, the student receives a Bachelor of Science in Physics: Option in Engineering Physics, from EIU and a Bachelor of Science in Engineering degree from UIUC. With approval of the Engineering Advisor and the Chair of the Physics Department, the Physics: Engineering Physics Option can be awarded upon completion of a Bachelor of Science in Engineering degree from Southern Illinois University Carbondale (SIUC) as an alternative. Interested students should consult with the chairperson of the Pre-Engineering Studies Committee for detailed requirements of the program.

After completing 60 semester hours in this curriculum, a student may apply to the EIU Pre-Engineering Studies Committee for admission as an Engineering Physics candidate. The requirements for admission as an Engineering Physics candidate are a minimum grade point average of 3.00 and approval by the committee. Continuation as an engineering candidate includes meeting the transfer requirements of the College of Engineering at UIUC.

A student who transfers into this curriculum from another college or university must be in residence at EIU for at least one semester before he/she becomes eligible for admission as an Engineering Physics candidate.

Core Requirements

Total: 88-95 semester hours with elective credit to bring the total to 90 semester hours.

- General Education Electives. Credits: 30
(See footnote 1)
- AET 2043 - Computer-Aided Engineering Drawing. Credits: 3
(See Footnote 2)
- CHM 1310G - General Chemistry I. Credits: 3
- CHM 1315G - General Chemistry Laboratory I. Credits: 1
- CHM 1410 - General Chemistry II. Credits: 3
(See Footnote 2)
- CHM 1415 - General Chemistry Laboratory II. Credits: 1
(See Footnote 2)
- MAT 1441G - Calculus and Analytic Geometry I. Credits: 5
- CSM 2170 - Computer Science I. Credits: 4
- MAT 2442 - Calculus and Analytic Geometry II. Credits: 5
- MAT 2443 - Calculus and Analytic Geometry III. Credits: 4
- MAT 3501 - Differential Equations I. Credits: 3
- PHY 1000 - Engineering Orientation. Credits: Audit only
(See Footnote 3)
- PHY 1351G - General Physics I. Credits: 3
or PHY 1391G
- PHY 1352G - General Physics I Laboratory. Credits: 1
or PHY 1392G
- PHY 1361 - General Physics II. Credits: 3
- PHY 1362 - General Physics II Laboratory. Credits: 1
- PHY 1371 - General Physics III. Credits: 3
- PHY 1372 - General Physics III Laboratory. Credits: 1
- PHY 2390 - Statics. Credits: 3
- PHY 2400 - Dynamics. Credits: 3
- PHY 4711 - Experimental Physics I. Credits: 1
- PHY 4712 - Experimental Physics II. Credits: 1

12 Semester Hours From Category A+B+C:

Category A: At least one of:

- PHY 3410 - Electricity and Magnetism I. Credits: 3
- PHY 4850 - Quantum Mechanics and Atomic Physics I. Credits: 4
(See Footnote 4)

Category B: At least one of:

- PHY 3350 - Introduction to Solid State Physics. Credits: 3
(See Footnote 5)
- PHY 4470 - Optics. Credits: 4
- PHY 4750 - Thermodynamics and Statistical Mechanics. Credits: 4

Category C:

- PHY 3080 - Modern Physics I. Credits: 3
- PHY 3150 - Electronics. Credits: 4
- PHY 3270 - Introduction to Circuit Analysis. Credits: 4
- PHY 3300 - Advanced Classical Mechanics. Credits: 3
- PHY 3350 - Introduction to Solid State Physics. Credits: 3
- PHY 3410 - Electricity and Magnetism I. Credits: 3
- PHY 3420 - Electricity and Magnetism II. Credits: 3
- PHY 4444A - Honors Independent Study A. Credits: 3
or PHY 4444B or PHY 4444D
(See Footnote 6)
- PHY 4470 - Optics. Credits: 4
- PHY 4555 - Honors Research. Credits: 3
(See Footnote 6)
- PHY 4601A - Research in Physics 1A. Credits: 1
or PHY 4601B or PHY 4601D or PHY 4601E
(See Footnote 6)
OR
- PHY 4602A - Research in Physics 2A. Credits: 2
or PHY 4602B or PHY 4602D or PHY 4602E
(See Footnote 6)
OR
- PHY 4603A - Research in Physics 3A. Credits: 3
or PHY 4603B or PHY 4603D or PHY 4603E
(See Footnote 6)
- PHY 4644 - Honors Thesis. Credits: 3
(See Footnote 6)
- PHY 4750 - Thermodynamics and Statistical Mechanics. Credits: 4
- PHY 4800* - Advanced Independent Study. Credits: 1 to 6
*Course Numbers: PHY 4800A, B, D-F, H-M, O-R, T-Z
(See Footnote 6)
- PHY 4850 - Quantum Mechanics and Atomic Physics I. Credits: 4
- PHY 4860 - Quantum Mechanics and Atomic Physics II. Credits: 2
- PHY 4870 - Mathematical Methods of Physics. Credits: 3

Footnotes:

(Major GPA based on all EIU courses in chemistry, industrial technology, mathematics, and physics taken from the list above.)

Students completing cooperative degree programs, i.e., Engineering and Clinical Laboratory Sciences, will not be required to take a senior seminar.

¹ These courses should be selected in consultation with the chairperson of the Pre-Engineering Studies Committee to ensure that Eastern's General Education requirements and UIUC requirements are both fulfilled. ECN 2801G is highly recommended in the Social and Behavioral Sciences since it is required in some UIUC and SIUC Engineering Programs.

² Students are encouraged to take all of these courses, but one or more may not be required in certain engineering fields.

- ³ This course should be repeated each semester that a student attends Eastern. In the case of course conflicts with this course, a waiver should be obtained from the Chair of the Pre-Engineering Studies Committee.
- ⁴ This course has a pre-requisite of Physics 3080.
- ⁵ This course has a pre-requisite of Physics 3410.
- ⁶ A limit of 3 hours of Physics 4444*, 4555, 4601*, 4602*, 4603*, 4644, or 4800* may be counted toward the degree.

Physics: Radiation Physics Option (B.S.)

Total Semester Hours required for the Degree: 120 semester hours

Minimum Semester Hours required for the Physics: Radiation Physics Option: 48 semester hours

The radiation physics option is for students interested in applications of physics that occur in the nuclear radiation fields including radio-pharmaceuticals, dosimetry and environmental radiation safety.

Core Requirements

Requirements include:

- CHM 1310G - General Chemistry I. Credits: 3
- CHM 1315G - General Chemistry Laboratory I. Credits: 1
- CHM 1410 - General Chemistry II. Credits: 3
- CHM 1415 - General Chemistry Laboratory II. Credits: 1
- CHM 2730 - Quantitative Analysis. Credits: 3
- GEO 3010G - Environmental Physical Sciences. Credits: 3
- MAT 1441G - Calculus and Analytic Geometry I. Credits: 5
or
- MAT 2110G - Brief Calculus with Applications. Credits: 3
- CSM 2170 - Computer Science I. Credits: 4
- PHY 1151G - Principles of Physics I. Credits: 3
- PHY 1152G - Principles of Physics I Laboratory. Credits: 1
- PHY 1161 - Principles of Physics II. Credits: 3
- PHY 1162 - Principles of Physics II Laboratory. Credits: 1
- PHY 3001 - Laser Safety. Credits: 3
- PHY 3002 - Introduction to Health Physics. Credits: 3
- PHY 3150 - Electronics. Credits: 4
- PHY 4000 - Seminar in Physics. Credits: 1
- PHY 4711 - Experimental Physics I. Credits: 1
- PHY 4712 - Experimental Physics II. Credits: 1
- PHY 4713 - Experimental Physics III. Credits: 1

Electives

5 semester hours of electives chosen from the list below:

- BIO 3120 - Molecular and Cellular Biology. Credits: 4
- CHM 2430 - Survey of Organic Chemistry. Credits: 3
- CHM 2435 - Survey of Organic Chemistry Laboratory. Credits: 1
- CHM 3450 - Biochemistry I. Credits: 3
- FCS 4820 - Death and Dying. Credits: 3
- MAT 2250G - Elementary Statistics. Credits: 4
- PHY 3080 - Modern Physics I. Credits: 3
- PHY 4010 - Seminar in Physics. Credits: 1
- PHY 4444A - Honors Independent Study A. Credits: 3
or PHY 4444B or PHY 4444D
(See Footnote 1)
- PHY 4555 - Honors Research. Credits: 3
(See Footnote 1)
- PHY 4601A - Research in Physics 1A. Credits: 1
or PHY 4601B or PHY 4601D or PHY 4601E
(See Footnote 1)
- PHY 4602A - Research in Physics 2A. Credits: 2
or PHY 4602B or PHY 4602D or PHY 4602E
(See Footnote 1)
- PHY 4603A - Research in Physics 3A. Credits: 3
or PHY 4603B or PHY 4603D or PHY 4603E
- PHY 4800* - Advanced Independent Study. Credits: 1 to 6
*Course Numbers: PHY 4800A, B, D-F, H-M, O-R, T-Z

Footnote:

¹ No more than 3 semester hours of PHY 4444*, PHY 4555, PHY 4600, 4601*, 4602*, 4603* and PHY 4800* in aggregate will count towards the Radiation Physics concentration electives.

(Major GPA based on all physics courses taken at EIU.)

Physics Teacher Licensure

See the Science with Teacher Licensure Major program, (Physics Specialization).

Physics Honors Program

Admission to the Physics Departmental Honors Program will be open to students who have at least a 3.50 GPA, for all classes, on a 4.0 point scale, permission of the Dean of the Honors College, and permission of the Departmental Honors Coordinator. In addition, Physics 2390 and Mathematics 3501 must be completed prior to admission.

Students in the Physics Honors Program must maintain an **overall** GPA of 3.50. Students who have been dismissed from the program because their overall GPA has fallen below 3.50 may petition for readmission. Students must raise their grade-point average to 3.50 and submit their petition to the Dean of the Honors College and Departmental Honors Coordinator.

Departmental Honors Requirements

Subject to the following minima:

Students in the Departmental Honors program must also complete all the requirements for graduation as a physics major as given in the current **Undergraduate Catalog**.

Honors thesis supervision will be undertaken by a faculty member approved by the Departmental Chairperson, the Departmental Honors Coordinator, and Faculty Advisor. The thesis must be submitted and defended in accordance with the Senior Thesis Guide and must be signed by the thesis supervisor.

And at least 12 semester hours in the following honors courses:

- PHY 4444A - Honors Independent Study A. Credits: 3
or PHY 4444B or PHY 4444D
(See Footnote 1)
- PHY 4555 - Honors Research. Credits: 3
- PHY 4644 - Honors Thesis. Credits: 3
- PHY 4666 - Honors Seminar. Credits: 3

Footnote:

¹A total of no more than 6 hours of Honors Independent Study may be counted towards completion of the Honors Program.

Physics Minor

Total Semester Hours: 18

4 Semester Hours from the following courses:

- PHY 1351G - General Physics I. Credits: 3
- PHY 1352G - General Physics I Laboratory. Credits: 1

OR

- PHY 1391G - General Physics I, Honors. Credits: 3
- PHY 1392G - General Physics I Laboratory, Honors. Credits: 1

OR

- PHY 1151G - Principles of Physics I. Credits: 3
- PHY 1152G - Principles of Physics I Laboratory. Credits: 1

4 Semester Hours from the following courses:

- PHY 1361 - General Physics II. Credits: 3
- PHY 1362 - General Physics II Laboratory. Credits: 1

OR

- PHY 1161 - Principles of Physics II. Credits: 3
- PHY 1162 - Principles of Physics II Laboratory. Credits: 1

4 Semester Hours from:

- PHY 1371 - General Physics III. Credits: 3
- PHY 1372 - General Physics III Laboratory. Credits: 1

Electives:

6 Semester Hours from:

- PHY 2390 - Statics. Credits: 3
- PHY 2400 - Dynamics. Credits: 3
- PHY 3001 - Laser Safety. Credits: 3
- PHY 3002 - Introduction to Health Physics. Credits: 3
- PHY 3010* - Special Topics in Physics. Credits: 1 to 3
*Course Numbers: PHY 3010 D-F, H-M, O-R, T-Z
(See Footnote 2)
- PHY 3080 - Modern Physics I. Credits: 3
- PHY 3100 - Astronomical Techniques. Credits: 3
- PHY 3150 - Electronics. Credits: 4
- PHY 3300 - Advanced Classical Mechanics. Credits: 3
- PHY 3320 - Computational Methods in Physics and Engineering. Credits: 4
- PHY 3350 - Introduction to Solid State Physics. Credits: 3
- PHY 3410 - Electricity and Magnetism I. Credits: 3
- PHY 3420 - Electricity and Magnetism II. Credits: 3
- PHY 4100 - Astrophysics. Credits: 3
- PHY 4320 - Computational Physics. Credits: 4
- PHY 4470 - Optics. Credits: 4

- PHY 4711 - Experimental Physics I. Credits: 1
or PHY 4712 or PHY 4713
(See Footnote 1)
- PHY 4750 - Thermodynamics and Statistical Mechanics. Credits: 4
- PHY 4850 - Quantum Mechanics and Atomic Physics I. Credits: 4
- PHY 4860 - Quantum Mechanics and Atomic Physics II. Credits: 2

Footnotes:

¹May only count one semester hour of PHY 4711, PHY 4712 and PHY 4713 toward the minor.

²Not more than two semester hours from PHY 3010*.

Engineering (B.S.)

Total hours to degree: 90 (total does not include completion of required engineering degree elsewhere)

(See also "Pre-Engineering Program")

This cooperative degree program, administered by the Pre-Engineering Studies Committee, requires about three years of work at EIU followed by two years of work at either the University of Illinois at Urbana-Champaign (UIUC) or Southern Illinois University at Carbondale (SIUC). It is designed to provide engineering students with a broader base of liberal arts than is usually given in a four-year curriculum. Upon completion of the program, the student receives a Bachelor of Science degree from EIU and a Bachelor of Science in Engineering degree from UIUC or SIUC. Interested students should consult with the chairperson of the Pre-Engineering Studies Committee for detailed requirements of the program.

After completing 60 semester hours in this curriculum, a student may apply to the Pre-Engineering Studies Committee for admission as an engineering candidate. The requirements for admission as an engineering candidate are a minimum grade point average of 2.50 for UIUC (2.00 for SIUC) and approval by the committee. Continuation as an engineering candidate includes meeting the transfer requirements of the College of Engineering at UIUC or SIUC.

A student who transfers into this curriculum from another college or university must be in residence at EIU for at least one semester before he/she becomes eligible for admission as an engineering candidate.

Core Requirements

Total: 73-89 semester hours with elective credit to bring the total to 90 semester hours.

- General Education Electives. Credits: 20-27
(See footnote 3)
- AET 2043 - Computer-Aided Engineering Drawing. Credits: 3
(See footnote 2)
- CHM 1310G - General Chemistry I. Credits: 3
- CHM 1315G - General Chemistry Laboratory I. Credits: 1
- CHM 1410 - General Chemistry II. Credits: 3
- CHM 1415 - General Chemistry Laboratory II. Credits: 1
- CMN 1310G - Introduction to Speech Communication. Credits: 3
- ENG 1001G - College Composition I: Critical Reading & Source-Based Writing. Credits: 3
- ENG 1002G - College Composition II: Argument & Critical Inquiry. Credits: 3
- MAT 1441G - Calculus and Analytic Geometry I. Credits: 5
- CSM 2170 - Computer Science I. Credits: 4
- MAT 2442 - Calculus and Analytic Geometry II. Credits: 5
- MAT 2443 - Calculus and Analytic Geometry III. Credits: 4
- MAT 3501 - Differential Equations I. Credits: 3
- PHY 1000 - Engineering Orientation. Credits: Audit only
(See footnote 1)
- PHY 1351G - General Physics I. Credits: 3
or PHY 1391G
- PHY 1352G - General Physics I Laboratory. Credits: 1
or PHY 1392G
- PHY 1361 - General Physics II. Credits: 3
- PHY 1362 - General Physics II Laboratory. Credits: 1
- PHY 1371 - General Physics III. Credits: 3
- PHY 1372 - General Physics III Laboratory. Credits: 1
- PHY 2390 - Statics. Credits: 3
(See footnote 2)
- PHY 2400 - Dynamics. Credits: 3
(See footnote 2)
- PHY 3270 - Introduction to Circuit Analysis. Credits: 4
(See footnote 2)

Footnotes:

(Major GPA based on all courses in chemistry, Applied Engineering & Technology, mathematics, and physics taken from the list above.)

Students completing cooperative degree programs, i.e., Engineering and Clinical Laboratory Sciences, will not be required to take a senior seminar.

- ¹ This course should be repeated each semester that a student attends Eastern. In the case of course conflicts with this course, a waiver should be obtained from the Chair of the Pre-Engineering Studies Committee.
- ² Students are encouraged to take all of these courses, but one or more may not be required in certain engineering fields. SIUC electrical engineering majors take PHY 3410 instead of AET 2043.
- ³ These courses should be selected in consultation with the chairperson of the Pre-Engineering Studies Committee to ensure that Eastern's General Education requirements and UIUC or SIUC requirements are both fulfilled. ECN 2801G is highly recommended in the Social and Behavioral Sciences since it is required in some UIUS and SIUC Engineering Programs.

Pre-Engineering Program

(See also "Engineering BS")

This two-year program is administered by the Pre-Engineering Studies Committee. Students planning to enroll in pre-engineering are advised to include the following in their high school programs: mathematics--four or more units, including trigonometry; and Science--three or more units, including chemistry and physics. Students with deficient high school background should expect their graduation with an engineering degree to be delayed.

There are two pre-engineering options: general (appropriate for all except chemical engineering) and chemical. Students interested in the chemical engineering option should consult with the chairperson of the Pre-Engineering Studies Committee.

Minimum Requirements

- Humanities and Social Studies approved by Pre-Engineering Chairperson. Credits: 6
- AET 2043 - Computer-Aided Engineering Drawing. Credits: 3
- CHM 1310G - General Chemistry I. Credits: 3
- CHM 1315G - General Chemistry Laboratory I. Credits: 1
- CHM 1410 - General Chemistry II. Credits: 3
- CHM 1415 - General Chemistry Laboratory II. Credits: 1
- ENG 1001G - College Composition I: Critical Reading & Source-Based Writing. Credits: 3
- ENG 1002G - College Composition II: Argument & Critical Inquiry. Credits: 3
- MAT 1441G - Calculus and Analytic Geometry I. Credits: 5
- CSM 2170 - Computer Science I. Credits: 4
- MAT 2442 - Calculus and Analytic Geometry II. Credits: 5
- MAT 2443 - Calculus and Analytic Geometry III. Credits: 4
- MAT 3501 - Differential Equations I. Credits: 3
- PHY 1000 - Engineering Orientation. Credits: Audit only
(See footnote 1)
- PHY 1351G - General Physics I. Credits: 3
or PHY 1391G
- PHY 1352G - General Physics I Laboratory. Credits: 1
or PHY 1392G
- PHY 1361 - General Physics II. Credits: 3
- PHY 1362 - General Physics II Laboratory. Credits: 1
- PHY 1371 - General Physics III. Credits: 3
- PHY 1372 - General Physics III Laboratory. Credits: 1
- PHY 2390 - Statics. Credits: 3
- PHY 2400 - Dynamics. Credits: 3
- PHY 3270 - Introduction to Circuit Analysis. Credits: 4

Footnotes:

¹ This course should be repeated each semester that a student attends Eastern. In the case of course conflicts with this course, a waiver should be obtained from the Chair of the Pre-Engineering Studies Committee.

Department of Political Science

Department Faculty

Rich Wandling, Chairperson

Anderson, K.; Ashley, J.; Burge, R.; Carwell, D.; Hendrickson, R.; Morris, J.; Mueller, M.; Swenson, K.; Wandling, R.

Department Telephone: 217.581.2523

Political Science (B.A.)

Total Semester Hours required for the Degree: 120 semester hours

The major in Political Science comprises:

Semester Hours required for the Political Science Major: 39

Core Requirements (15 hours)

- PLS 1153G - American Government and Constitution. Credits: 3
or
- PLS 1193G - American Government and Constitution, Honors. Credits: 3
- PLS 2033 - Research Methods in Political Science. Credits: 3

Three of the following

- PLS 2103 - Introduction to Political Theory. Credits: 3
- PLS 2253G - Introduction to International Relations. Credits: 3
or
- PLS 2293G - Introduction to International Relations, Honors. Credits: 3
- PLS 1003 - Introduction to Comparative Politics. Credits: 3
- PLS 2703 - Introduction to Public Policy. Credits: 3

Field Requirements (18 hours):

18 hours of 3000-4000 level courses, including at least one from each of the three fields (18 hours total)

Comparative Politics & International Relations

- PLS 3100 - Global Threats and Problems. Credits: 3
- PLS 3203 - American Foreign Policy. Credits: 3
- PLS 3223 - International Organizations. Credits: 3
- PLS 3233 - International Terrorism. Credits: 3
- PLS 3253 - Human Rights and International Law. Credits: 3
- PLS 3303 - European Politics and Governments. Credits: 3
- PLS 3333 - Politics of Latin America and the Caribbean. Credits: 3
- PLS 3343 - Government and Politics of the Middle East. Credits: 3
- PLS 3353 - Politics of Sub-Saharan Africa. Credits: 3
- PLS 3363 - Government and Politics in Asia-Pacific Rim. Credits: 3
- PLS 3373 - International Political Economy. Credits: 3
- PLS 3863A - Special Topics in Political Science. Credits: 3
- PLS 4823 - International Policy Issues. Credits: 3

American Politics, Public Policy & Public Administration

- PLS 3603 - State and Local Government. Credits: 3
- PLS 3653 - American Indian Politics. Credits: 3
- PLS 3703 - African American Politics. Credits: 3
- PLS 3713 - Political Parties and Elections. Credits: 3
- PLS 3723 - Political Behavior. Credits: 3
- PLS 3733 - Interest Groups and Lobbying. Credits: 3
- PLS 3743 - Congress. Credits: 3
- PLS 3753 - The American Presidency. Credits: 3
- PLS 3763 - Environmental Politics and Policy. Credits: 3
- PLS 3863B - Special Topics in Political Science. Credits: 3
- PLS 3903 - Women & Politics. Credits: 3

- PLS 4793 - Civic and Nonprofit Leadership. Credits: 3
- PLS 4873 - Human Resource Management in Public and Nonprofit Organizations. Credits: 3
- PLS 4893 - Budgeting in Government and Nonprofit Organizations. Credits: 3

Public Law & Political Theory

- PLS 3513 - Politics and the Legal Process. Credits: 3
- PLS 3523 - Criminal Law. Credits: 3
- PLS 3543 - Civil Liberties in America. Credits: 3
- PLS 3553 - Federal Indian Law and Policy. Credits: 3
- PLS 3863D - Special Topics in Political Science. Credits: 3
- PLS 4774 - American Constitutional Law. Credits: 3
- PLS 4853 - The Supreme Court. Credits: 3
- PLS 4903 - Classic Political Theory. Credits: 3
- PLS 4913 - Contemporary Political Theory. Credits: 3
- PLS 4923 - African American Political Thought. Credits: 3
- PLS 4933 - Ideologies of the Developing World. Credits: 3
- PLS 4943 - American Political Thought. Credits: 3

Applied Political Science Experience (3 hours):

Political Science majors will complete at least three hours in one or more of the following experiences:

- PLS 3970 - Study Abroad. Credits: 1 to 15
(See Footnote *)
- PLS 4275 - Internship. Credits: 1 to 12
(See Footnote **)
- PLS 4503 - Independent Study. Credits: 1 to 6
(See Footnote ***)
- PLS 4444 - Honors Independent Study. Credits: 3
(See footnote #)
- PLS 4555 - Honors Research. Credits: 3
(See footnote #)
- PLS 4644 - Honors Thesis. Credits: 3
(See footnote #)
- PLS 2503 - Legal Research and Argument. Credits: 3
(only one credit hour may be counted toward applied learning experience)
- PLS 25131 - Moot Court I. Credits: 1
or PLS 25132 or PLS 25133
(Limited to 3 hours of Political Science Credit)
- PLS 26111 - Model Illinois Government I. Credits: 1
or PLS 26112
(Limited to 3 hours of Political Science Credit)

Political Science Capstone Course (3 hours):

All Political Science majors will complete a capstone course (PLS 4600), taken after students have completed at least 75 hours, including all Core Introductory Political Science requirements, and at least nine hours of Field Requirements.

- PLS 4600 - Political Science Capstone. Credits: 3

Footnotes:

* Three credit hours will count for this requirement. Additional credit hours may be substituted for Field Requirements, with departmental approval.

** Three credit hours will count for this requirement. Additional credit hours cannot be substituted for Field Requirements, but will count towards degree completion.

*** Three credit hours will count for this requirement. Additional credit hours cannot be substituted for Field Requirements, but will be included in computing the major g.p.a.

Students enrolled in Honors Independent Study, Research or Thesis must be enrolled in Political Science Departmental Honors.

Political Science with Civic and Nonprofit Leadership Option (B.A.)

Total Semester Hours required for the Degree: 120 semester hours

Total Semester Hours for the Major in Political Science with Civic & Nonprofit Leadership Option: 46 semester hours

Introductory Courses (12 hours):

- PLS 1153G - American Government and Constitution. Credits: 3
or
- PLS 1193G - American Government and Constitution, Honors. Credits: 3
- PLS 2033 - Research Methods in Political Science. Credits: 3
- PLS 1003 - Introduction to Comparative Politics. Credits: 3
- PLS 2103 - Introduction to Political Theory. Credits: 3

Required Courses (12 hours):

- One 3000/4000 level course from the political theory/public law field (3)
- PLS 4793 - Civic and Nonprofit Leadership. Credits: 3
- PLS 4893 - Budgeting in Government and Nonprofit Organizations. Credits: 3
- PLS 4873 - Human Resource Management in Public and Nonprofit Organizations. Credits: 3

Track Hours (12 hours from one track):

U.S. Leadership & Advocacy Track

- PLS 2703 - Introduction to Public Policy. Credits: 3
(See Footnote *)
- PLS 3603 - State and Local Government. Credits: 3
- PLS 3733 - Interest Groups and Lobbying. Credits: 3
- PLS 3723 - Political Behavior. Credits: 3
- PLS 3763 - Environmental Politics and Policy. Credits: 3
- PLS 3653 - American Indian Politics. Credits: 3
- PLS 3703 - African American Politics. Credits: 3
- PLS 3903 - Women & Politics. Credits: 3
- PLS 3713 - Political Parties and Elections. Credits: 3
- PLS 3863B - Special Topics in Political Science. Credits: 3
- PLS 3743 - Congress. Credits: 3
- PLS 3753 - The American Presidency. Credits: 3

Footnote:

* Students are required to complete PLS 2703 for this track.

Global Leadership & Advocacy Track

- PLS 2253G - Introduction to International Relations. Credits: 3
(See Footnote *)
or
- PLS 2293G - Introduction to International Relations, Honors. Credits: 3
(See Footnote *)
- PLS 3223 - International Organizations. Credits: 3
- PLS 3303 - European Politics and Governments. Credits: 3
- PLS 3253 - Human Rights and International Law. Credits: 3
- PLS 3203 - American Foreign Policy. Credits: 3
- PLS 3100 - Global Threats and Problems. Credits: 3
- PLS 3353 - Politics of Sub-Saharan Africa. Credits: 3
- PLS 3343 - Government and Politics of the Middle East. Credits: 3
- PLS 3363 - Government and Politics in Asia-Pacific Rim. Credits: 3

- PLS 3333 - Politics of Latin America and the Caribbean. Credits: 3
- PLS 3373 - International Political Economy. Credits: 3
- PLS 3863A - Special Topics in Political Science. Credits: 3
- PLS 4823 - International Policy Issues. Credits: 3

Footnote:

* Students are required to complete PLS 2253G or PLS 2293G for this track.

Applied Learning (3 hours):

- PLS 3970 - Study Abroad. Credits: 1 to 15
- PLS 4275 - Internship. Credits: 1 to 12
- PLS 4503 - Independent Study. Credits: 1 to 6
- PLS 4444 - Honors Independent Study. Credits: 3
(See Footnote #)
- PLS 4555 - Honors Research. Credits: 3
(See Footnote #)
- PLS 4644 - Honors Thesis. Credits: 3
(See Footnote #)
- PLS 2503 - Legal Research and Argument. Credits: 3
- PLS 25131 - Moot Court I. Credits: 1
or
- PLS 25132 - Moot Court II. Credits: 1
or
- PLS 25133 - Moot Court III. Credits: 1
- PLS 26111 - Model Illinois Government I. Credits: 1
or
- PLS 26112 - Model Illinois Government II. Credits: 1

GIS Requirement (3 hours):

- GEO 3810 - Introduction to Geographic Information Systems. Credits: 3

Capstone Requirement (3 hours):

- PLS 4600 - Political Science Capstone. Credits: 3

Students are encouraged to take electives, minors, or a double-major in fields that complement their interests, including other social sciences, foreign languages, humanities, and business.

Footnote:

Students enrolled in Honors Independent Study, Research or Thesis must be enrolled in Political Science Departmental Honors.

Political Science with International Studies Option (B.A.)

Total Semester Hours required for the Degree: 120 semester hours

Semester Hours for the Major in Political Science with International Studies Option: 51 semester hours

Core Introductory Requirements (15 hours)

All Political Science majors with the International Studies Option will complete the following hours:

- PLS 1003 - Introduction to Comparative Politics. Credits: 3
- PLS 1153G - American Government and Constitution. Credits: 3
or
- PLS 1193G - American Government and Constitution, Honors. Credits: 3
- PLS 2033 - Research Methods in Political Science. Credits: 3
- PLS 2103 - Introduction to Political Theory. Credits: 3
or
- PLS 2703 - Introduction to Public Policy. Credits: 3
- PLS 2253G - Introduction to International Relations. Credits: 3
or
- PLS 2293G - Introduction to International Relations, Honors. Credits: 3

Political Science Field Requirements (18 hours):

Students will take four courses (12 hours) from the Comparative Politics and International Relations group. Students will take one additional course from each of the other two subfields.

Comparative Politics & International Relations

- PLS 3100 - Global Threats and Problems. Credits: 3
- PLS 3203 - American Foreign Policy. Credits: 3
- PLS 3223 - International Organizations. Credits: 3
- PLS 3233 - International Terrorism. Credits: 3
- PLS 3253 - Human Rights and International Law. Credits: 3
- PLS 3303 - European Politics and Governments. Credits: 3
- PLS 3333 - Politics of Latin America and the Caribbean. Credits: 3
- PLS 3343 - Government and Politics of the Middle East. Credits: 3
- PLS 3353 - Politics of Sub-Saharan Africa. Credits: 3
- PLS 3363 - Government and Politics in Asia-Pacific Rim. Credits: 3
- PLS 3373 - International Political Economy. Credits: 3
- PLS 3863A - Special Topics in Political Science. Credits: 3
- PLS 4823 - International Policy Issues. Credits: 3

American Politics, Public Policy & Public Administration

- PLS 3603 - State and Local Government. Credits: 3
- PLS 3653 - American Indian Politics. Credits: 3
- PLS 3703 - African American Politics. Credits: 3
- PLS 3713 - Political Parties and Elections. Credits: 3
- PLS 3723 - Political Behavior. Credits: 3
- PLS 3733 - Interest Groups and Lobbying. Credits: 3
- PLS 3743 - Congress. Credits: 3
- PLS 3753 - The American Presidency. Credits: 3
- PLS 3763 - Environmental Politics and Policy. Credits: 3
- PLS 3863B - Special Topics in Political Science. Credits: 3
- PLS 3903 - Women & Politics. Credits: 3
- PLS 4793 - Civic and Nonprofit Leadership. Credits: 3
- PLS 4873 - Human Resource Management in Public and Nonprofit Organizations. Credits: 3
- PLS 4893 - Budgeting in Government and Nonprofit Organizations. Credits: 3

Public Law & Political Theory

- PLS 3513 - Politics and the Legal Process. Credits: 3
- PLS 3523 - Criminal Law. Credits: 3
- PLS 3543 - Civil Liberties in America. Credits: 3
- PLS 3553 - Federal Indian Law and Policy. Credits: 3
- PLS 3863D - Special Topics in Political Science. Credits: 3
- PLS 4774 - American Constitutional Law. Credits: 3
- PLS 4853 - The Supreme Court. Credits: 3
- PLS 4903 - Classic Political Theory. Credits: 3
- PLS 4913 - Contemporary Political Theory. Credits: 3
- PLS 4923 - African American Political Thought. Credits: 3
- PLS 4933 - Ideologies of the Developing World. Credits: 3
- PLS 4943 - American Political Thought. Credits: 3

Applied Political Science Experience (3 hours):

Political Science majors with the International Studies Option will complete at least three hours in one or more of the following experiences:

- PLS 3970 - Study Abroad. Credits: 1 to 15
(See Footnote *)
- PLS 4275 - Internship. Credits: 1 to 12
(See Footnote **)
- PLS 4503 - Independent Study. Credits: 1 to 6
(See Footnote ***)
(See Footnote *)
- PLS 4444 - Honors Independent Study. Credits: 3
(See Footnote #)
- PLS 4555 - Honors Research. Credits: 3
(See Footnote #)
- PLS 4644 - Honors Thesis. Credits: 3
(See Footnote #)
- PLS 2503 - Legal Research and Argument. Credits: 3
(only one credit hour may be counted toward applied learning experience)
- PLS 25131 - Moot Court I. Credits: 1
or PLS 25132 or PLS 25133
(Limited to 3 hours of Political Science Credit)
- PLS 26111 - Model Illinois Government I. Credits: 1
or PLS 26112
(Limited to 3 hours of Political Science Credit)

Political Science Capstone Course (3 hours):

All Political Science majors with the International Studies Option will complete a capstone course (PLS 4600), taken after students have completed at least 75 hours, including all Core Introductory Political Science requirements, and at least nine hours of Field Requirements.

- PLS 4600 - Political Science Capstone. Credits: 3

History Requirements (6 hours):

Students will complete two courses from the following list:

- HIS 2560 - Early Modern World History. Credits: 3
- HIS 3110 - Britain 1688 to the Present. Credits: 3
- HIS 3210 - History of the Modern Middle East. Credits: 3
- HIS 3250 - African History from 1400. Credits: 3
- HIS 3260 - Modern Latin America. Credits: 3
- HIS 3320 - History of Modern China. Credits: 3
- HIS 3330 - Modern East Asia in the Pacific Century. Credits: 3
- HIS 3350 - Twentieth Century Russia. Credits: 3
- HIS 3450 - Modern Germany. Credits: 3
- HIS 3555 - Modern World History. Credits: 3

- HIS 3800 - U.S. Diplomatic History. Credits: 3

Or another appropriate world history course selected with approval of the Political Science academic advisor.

Economics Requirements and Electives (6 hours minimum):

Students will complete the following two courses:

- ECN 2801G - Principles of Macroeconomics. Credits: 3
or
- ECN 2891G - Principles of Macroeconomics, Honors. Credits: 3
- ECN 2802G - Principles of Microeconomics. Credits: 3
or
- ECN 2892G - Principles of Microeconomics, Honors. Credits: 3

Although not required, students with an interest in taking upper-division courses in Economics are encouraged to select from the following:

- ECN 3860 - International Economics. Credits: 3
- ECN 4570 - Economic Problems of Developing Countries. Credits: 3
- ECN 4861 - International Economic Problems. Credits: 3

Foreign Language Requirement

Students must show proficiency in a foreign language (of their choosing) at the intermediate level or completion of foreign language courses at the intermediate level.

Footnotes:

(Major GPA based on all political science courses taken at EIU.)

* Three credit hours will count for this requirement. Additional credit hours may be substituted for Field Requirements, with departmental approval.

** Three credit hours will count for this requirement. Additional credit hours cannot be substituted for Field Requirements, but will count toward degree completion.

*** Three credit hours will count for this requirement. Additional credit hours cannot be substituted for Field Requirements, but will be included in computing the major g.p.a.

Students enrolled in Honors Independent Study, Research or Thesis must be enrolled in Political Science Departmental Honors.

Political Science Teacher Licensure

See the Social Science Teaching Major program, (Political Science Designation).

Political Science Honors Program

Prerequisites

Admission to the Political Science Departmental Honors Program is open to students who have at least a 3.50 grade-point average on a 4.0 point scale and have completed the courses listed below. Permission of the Dean of the Honors College and the Departmental Honors Coordinator is also required. Students in the Political Science Honors Program must maintain an overall GPA of 3.50. Students who have been dismissed from the program because their overall GPA has fallen below 3.50 may petition for readmission. Students must raise their grade-point average to 3.50 and submit their petition to the Dean of the Honors College and Departmental Honors Coordinator.

- PLS 1153G - American Government and Constitution. Credits: 3
or
- PLS 1193G - American Government and Constitution, Honors. Credits: 3
- PLS 2033 - Research Methods in Political Science. Credits: 3

And at least two of the following:

- PLS 1003 - Introduction to Comparative Politics. Credits: 3
or
- PLS 2253G - Introduction to International Relations. Credits: 3
or
- PLS 2293G - Introduction to International Relations, Honors. Credits: 3
- PLS 2103 - Introduction to Political Theory. Credits: 3
- PLS 2703 - Introduction to Public Policy. Credits: 3

Departmental Honors Requirements

- PLS 4444 - Honors Independent Study. Credits: 3
(See Footnote *)
- PLS 4555 - Honors Research. Credits: 3
(See Footnote **)
- PLS 4644 - Honors Thesis. Credits: 3
(See Footnote **)

And Political Science 5000 through 5499 Graduate Seminar. Credits: 3

The graduate seminar required of honors students may count toward a field elective or a field requirement in the major with the prior approval of the Departmental Chairperson and the Departmental Honors Coordinator.

Footnotes:

* Honors Independent Study counts towards the "Applied Political Science Experience."

** Honors Research and Honors Thesis may count towards the 12 hours of field electives in the major.

Political Science Minor

18 semester hours in political science, including:

- PLS 1153G - American Government and Constitution. Credits: 3
or
- PLS 1193G - American Government and Constitution, Honors. Credits: 3

Plus One of:

- PLS 1003 - Introduction to Comparative Politics. Credits: 3
- PLS 2253G - Introduction to International Relations. Credits: 3
or
- PLS 2293G - Introduction to International Relations, Honors. Credits: 3

And at least nine semester hours of Political Science courses numbered 3000 and above.

Civic and Nonprofit Leadership Minor

18 hours required

Political Science Majors are restricted from enrolling in the Civic and Nonprofit Leadership Minor.

Required Courses:

- PLS 4793 - Civic and Nonprofit Leadership. Credits: 3
- PLS 4893 - Budgeting in Government and Nonprofit Organizations. Credits: 3
- PLS 4873 - Human Resource Management in Public and Nonprofit Organizations. Credits: 3

Complete 9 hours in one of the tracks below, with at least 6 hours from the 3000-4000 level:

U.S. Leadership & Advocacy Track

- PLS 2703 - Introduction to Public Policy. Credits: 3
- PLS 1153G - American Government and Constitution. Credits: 3
or
- PLS 1193G - American Government and Constitution, Honors. Credits: 3
- PLS 3603 - State and Local Government. Credits: 3
- PLS 3733 - Interest Groups and Lobbying. Credits: 3
- PLS 3723 - Political Behavior. Credits: 3
- PLS 3763 - Environmental Politics and Policy. Credits: 3
- PLS 3653 - American Indian Politics. Credits: 3
- PLS 3703 - African American Politics. Credits: 3
- PLS 3903 - Women & Politics. Credits: 3
- PLS 3713 - Political Parties and Elections. Credits: 3
- PLS 3863B - Special Topics in Political Science. Credits: 3
- PLS 3743 - Congress. Credits: 3
- PLS 3753 - The American Presidency. Credits: 3

Global Leadership & Advocacy Track

- PLS 2253G - Introduction to International Relations. Credits: 3
or
- PLS 2293G - Introduction to International Relations, Honors. Credits: 3
- PLS 1003 - Introduction to Comparative Politics. Credits: 3
- PLS 3223 - International Organizations. Credits: 3
- PLS 3303 - European Politics and Governments. Credits: 3
- PLS 3253 - Human Rights and International Law. Credits: 3
- PLS 4823 - International Policy Issues. Credits: 3
- PLS 3203 - American Foreign Policy. Credits: 3
- PLS 3100 - Global Threats and Problems. Credits: 3
- PLS 3353 - Politics of Sub-Saharan Africa. Credits: 3
- PLS 3343 - Government and Politics of the Middle East. Credits: 3
- PLS 3363 - Government and Politics in Asia-Pacific Rim. Credits: 3
- PLS 3333 - Politics of Latin America and the Caribbean. Credits: 3
- PLS 3373 - International Political Economy. Credits: 3
- PLS 4933 - Ideologies of the Developing World. Credits: 3
- PLS 3863A - Special Topics in Political Science. Credits: 3

Pre-Law Program and Minor

To provide students with guidance in the selection of those courses which will enable them to complete a J.D. at an American Bar Association accredited law school, EIU offers a minor in Pre-Law Studies. This minor will provide students with the following: basic analytical skills, an introduction to the language of the law, and the written communication skills necessary for the study of law. This minor is administered by the Pre-Law Advisor and the Pre-Legal Studies Committee.

All students interested in a career in law should consult with the Pre-Law Advisor (217) 581-2523 (Coleman Hall 2135) for information regarding law school admission requirements.

Students at Eastern are provided with a variety of on-campus services by the Pre-Law Advisor and the Pre-Legal Studies Committee, including information about all ABA-approved law schools, guest presentations by law school admissions officers and by persons who practice law, several scholarships for students who are admitted to law school, field trips to area law schools, Pre-Law Internships, a Pre-Law Club, the Law School Admission Test (administered on campus), a mock Law School Admission Test, LSAT Preparatory Course and advice from the Pre-Law Advisor concerning law school admissions strategies.

Department of Psychology

Department Faculty

John Mace, Chairperson

Addison, W.; Allan, W.; Bernas, R.; Brito, C.; Canivez, G.; Coppola, V.; Floress, M.; Gruber, R.; Haile Mariam, A.; Longley, S.; Nardi, D.; Scher, S.; Schoonover, C; Stowell, J.; Williams, J.

Department Telephone: 217.581.2127

Psychology (B.A.)

Total Semester Hours required for the Degree: 120 semester hours

Major

Semester Hours required for the Psychology Major: 36-39 semester hours depending on the Math requirement

Criteria for admission to the Psychology Major:

1. Completion of MAT 1271 or higher level math course, with a grade of C or better; or ACT mathematics score of 26 or higher.
2. Completion of PSY 1879G (or equivalent) with a grade of C or better.

The requirements of the Psychology BA are composed of core courses; selected courses from the Abnormal/Social, Biopsychology, Cognitive/Learning, and Development groups; and electives.

Core Courses for the Psychology Major: 15-18 semester hours depending on the Math requirement

- MAT 1271 - College Algebra. Credits: 3
or higher level math course, or ACT math score of 26 or higher
- PSY 1879G - Introductory Psychology. Credits: 3
- PSY 2610 - Statistical Methods of Psychology. Credits: 4
- PSY 2999 - Orientation to the Psychology Major. Credits: 1
- PSY 3805 - Research Methods and Experimental Design. Credits: 4

One of the following courses to meet the capstone requirement (See footnote 1) – 3 hours

- PSY 4250 - History and Systems. Credits: 3
- PSY 4260 - Crisis Intervention. Credits: 3
- PSY 4270 - Theories of Psychotherapy. Credits: 3
- PSY 4515 - Children with Exceptionalities. Credits: 3
- PSY 4590 - Psychology Seminar. Credits: 3
- PSY 4644 - Honors Thesis. Credits: 3
- PSY 4666 - Honors Seminar. Credits: 3
- PSY 4700 - Prejudice and Discrimination. Credits: 3

Group A. Abnormal/Social Group – 6 hours

At least two courses from

- PSY 3590 - Theories of Personality. Credits: 3
- PSY 3780 - Abnormal Psychology. Credits: 3
- PSY 3870 - Social Psychology. Credits: 3

Group B. Biopsychology Group – 3 hours

At least one course from

- PSY 3310 - Biological Psychology. Credits: 3
- PSY 3450 - Neuropsychology. Credits: 3
- PSY 3680 - Sensation and Perception. Credits: 3
- PSY 3820 - Cognitive Neuroscience. Credits: 3

Group C. Cognitive/Learning Group – 3 hours

At least one course from

- PSY 3620 - Psychology of Learning. Credits: 3
- PSY 3710 - Human Memory. Credit: 3
- PSY 3830 - Cognitive Psychology. Credits: 3

Group D. Developmental Group – 3 hours

At least one course from

- PSY 3515 - Child Psychology. Credits: 3
- PSY 3521 - Psychology of Adolescence and Young Adulthood. Credits: 3
- PSY 3525 - Psychology of Maturity and Old Age. Credits: 3

Electives – 6 hours

Six semester hours from any Psychology Courses² except Psychology 4274 and 4275.

Footnotes:

¹ Capstone Requirement: Graduation with a major in psychology requires the completion of a capstone experience entailing four components:

1. Oral presentation of information about psychology
2. Engagement with original primary literature in psychology
3. Written communication of information about psychology
4. Critical and integrative thinking about psychology

The capstone requirement must be met after the student has completed 90 semester hours and PSY 3805 - Research Methods and Experimental Design, with a grade of C or better.

The capstone requirement may also be met by completing individual components in other classes (e.g., PSY 4100F), or by non-class activities. All activities outside of a capstone course must have the approval of the department chair.

² No more than 3 semester hours each of PSY 3900A-E or PSY 4100A-E may count toward this requirement.

A grade of C or better is required in all courses counting towards the Major.

(Major GPA based on all psychology courses taken at EIU)

Majors are required to complete the department's exit evaluation at least 10 days prior to the closing date of the last term of graduation.

Psychology Teacher Licensure

See the Social Science Teaching Major program, (Psychology Designation).

Psychology Honors Program

Total Semester Hours 46-49

Admission to the Departmental Honors Program in Psychology requires at least a 3.50 GPA on a 4.0 scale and permission of the Department Honors Coordinator and the Dean of the Honors College.

Students in the Psychology Department Honors Program must maintain a minimum overall GPA of 3.50. Honors students whose overall GPA has fallen below 3.50 may be reinstated to the program if they raise their GPA to 3.50

Department Honors Requirements

Honors students must meet all of the requirements for the major (36-39 credit hours). In addition they must complete the following courses:

- PSY 4250 - History and Systems. Credits: 3
- PSY 4444 - Honors Independent Study. Credits: 3
- PSY 4610 - Advanced Statistics in Psychology. Credits: 4
- PSY 4644 - Honors Thesis. Credits: 3
- PSY 4666 - Honors Seminar. Credits: 3
(taken twice)

Psychology Minor

Semester Hours required for the Psychology Minor: 18 semester hours

Goals of the Psychology Minor:

1. Expose students to the major content domains of psychology.
2. Provide an opportunity for students to meet their educational or career goals.

Requirements

A grade of C or better is required in all courses counting towards the minor.

PSY 1879G

- PSY 1879G - Introductory Psychology. Credits: 3

And two courses (6 credits) from the following list (courses have to be from two different groups):

Group A. Abnormal/Social Group:

- PSY 3590 - Theories of Personality. Credits: 3
- PSY 3780 - Abnormal Psychology. Credits: 3
- PSY 3870 - Social Psychology. Credits: 3

Group B. Biopsychology Group:

- PSY 3310 - Biological Psychology. Credits: 3
- PSY 3680 - Sensation and Perception. Credits: 3
- PSY 3820 - Cognitive Neuroscience. Credits: 3

Group C. Cognitive/Learning Group:

- PSY 3620 - Psychology of Learning. Credits: 3
- PSY 3830 - Cognitive Psychology. Credits: 3

Group D. Developmental Group:

- PSY 3515 - Child Psychology. Credits: 3
- PSY 3521 - Psychology of Adolescence and Young Adulthood. Credits: 3
- PSY 3525 - Psychology of Maturity and Old Age. Credits: 3

And 9 Semester Hours of Electives in Psychology

Electives in Psychology selected to meet the particular educational goals of individual students in consultation with a Psychology advisor. Electives may be chosen from the groups listed above or from the electives for the major.

Science with Teacher Licensure

Science with Teacher Licensure (B.S.)

High School Licensure

The Science with Teacher Licensure major prepares students for teaching careers in the sciences (biological sciences, chemistry, earth sciences and physics) at the secondary level (grades 9-12). For students also wanting to be eligible to teach middle school sciences, additional Middle Level Education courses are required.

This major requires that students follow and meet the requirements for Admission, Retention and Graduation from Teacher Licensure programs as described in the "Teacher Licensure Programs" section of this catalog and as explained at the University Admission to Teacher Education Meeting which all students must attend. Students must gain University Approval to Take Teacher Education Courses no later than the end of the first semester of their Junior year. Additional information on Admission, Retention and Graduation for Teacher Licensure programs can be found on the College of Education & Professional Studies website at <http://www.eiu.edu/ceps/teached>.

All students must pass the Illinois Licensure Test of Academic Proficiency (TAP). Students can substitute ACT plus Writing or SAT scores for the TAP if they meet the minimum scores set by the Illinois State Board of Education. These scores can be found at <http://www.eiu.edu/ceps/teached> or by contacting the CEPS Dean's Office. Students should complete this requirement no later than their sophomore year.

Students must receive a "C" or better in all courses used toward graduation, regardless of where they are taken. This includes general education, professional education, major and minor courses, all university required courses, and electives. Students must maintain a minimum cumulative and major GPA of 2.65 in order to continue in the program.

Students must pass the edTPA (teacher performance assessment) before they can receive their teaching license from Illinois or any other state. Students will make their edTPA submission during student teaching.

Biological Sciences Specialization

Total Semester Hours required for the Degree: 131 semester hours

The BS in Science with Teacher Licensure (Biological Sciences Specialization) degree program prepares students for a career as a secondary science teacher with emphasis in the biological sciences.

The BS in Science Teacher Licensure with Biological Sciences Specialization Major:

Semester hours required for the Science with Teacher Licensure: Biological Sciences Specialization: 104

1. 70 Semester Hours of Major Courses

- BIO 1500 - General Biology I. Credits: 4
- BIO 1550G - General Biology II. Credits: 4
- BIO 2210 - Anatomy and Physiology I. Credits: 4
- BIO 2220 - Anatomy and Physiology II. Credits: 4
- BIO 3120 - Molecular and Cellular Biology. Credits: 4
- BIO 3180 - Ecology and Evolution. Credits: 4
- BIO 3200 - Genetics. Credits: 4
- BIO 3400 - Methods of Teaching Biological Sciences in High School. Credits: 3
- CHM 1310G - General Chemistry I. Credits: 3
- CHM 1315G - General Chemistry Laboratory I. Credits: 1
- CHM 1410 - General Chemistry II. Credits: 3
- CHM 1415 - General Chemistry Laboratory II. Credits: 1
- CHM 2730 - Quantitative Analysis. Credits: 3
- CHM 3100 - Practicum in Chemistry. Credits: 1
- GEO 1300G - Introduction to Earth Sciences. Credits: 4
- GEO 1400G - Weather and Climate. Credits: 4
- GEO 2450G - Oceanography. Credits: 3
- MAT 2250G - Elementary Statistics. Credits: 4
- PHY 1055G - Principles of Astronomy. Credits: 3
- PHY 1056G - Principles of Astronomy Laboratory. Credits: 1
- PHY 1151G - Principles of Physics I. Credits: 3

- PHY 1152G - Principles of Physics I Laboratory. Credits: 1
- PHY 1161 - Principles of Physics II. Credits: 3
- PHY 1162 - Principles of Physics II Laboratory. Credits: 1

2. 34 Hours in the Professional Education Core

- EDF 2555G - Education in a Diverse Society: The Multilingual/Multicultural Classroom. Credits: 3
(May also be used to satisfy General Education (Social and Behavioral Sciences) and Diversity requirement.)
- EDF 4550 - Critical Focus on Education. Credits: 3
(EDF 4450 may be substituted for EDF 4550 if taken prior to Fall 2013)
- EDP 2330 - Educational Psychology: Foundations for Teachers. Credits: 3
(EDP 3331 may be substituted for EDP 2330 if taken prior to Fall 2016.)
- SED 2000 - Inquiry Into Teaching. Credits: 2
- SED 3330 - Instructional Tasks in the Secondary School. Credits: 4
- SED 4330 - Literacy, Assessment, and Differentiation in Secondary Schools. Credits: 3
- SPE 3500 - The Education of Individuals with Exceptional Learning Needs: Access to the General Curriculum. Credits: 3
- STG 4000 - Multicultural/Disabilities Practicum. Credits: 1
- STG 4001 - Student Teaching. Credits: 12 to 16
(Register for 12 semester hours)

Footnote:

(Major GPA based on all biological sciences, chemistry, earth sciences, and physics courses taken at EIU.)

Chemistry Specialization

Total Semester Hours required for the Degree: 133-134 semester hours

The BS in Science with Teacher Licensure (Chemistry Specialization) degree program prepares students for a career as high school science teachers. In addition, it prepares students to teach high school chemistry at all levels from introductory through Advanced Placement (AP).

The BS in Science Teacher Licensure with Chemistry Specialization Major:

Semester hours required for the Science with Teacher Licensure: Chemistry Specialization: 106-107

1. 72-73 Semester Hours of Major Courses

- BIO 1500 - General Biology I. Credits: 4
- BIO 1550G - General Biology II. Credits: 4
- CHM 1310G - General Chemistry I. Credits: 3
- CHM 1315G - General Chemistry Laboratory I. Credits: 1
- CHM 1410 - General Chemistry II. Credits: 3
- CHM 1415 - General Chemistry Laboratory II. Credits: 1
- CHM 2310 - Inorganic Chemistry I. Credits: 3
- CHM 2430 - Survey of Organic Chemistry. Credits: 3
- CHM 2435 - Survey of Organic Chemistry Laboratory. Credits: 1
- CHM 2730 - Quantitative Analysis. Credits: 3
- CHM 3000 - Undergraduate Seminar. Credits: 0
- CHM 3001 - Undergraduate Seminar. Credits: 1
- CHM 3100 - Practicum in Chemistry. Credits: 1
- CHM 3300 - Survey of Biochemistry. Credits: 3
- CHM 3780 - Instrumental Analysis. Credits: 3
or CHM 3915
- CHM 3910 - Chemical Thermodynamics and Kinetics. Credits: 3
- CHM 3915 - Physical Chemistry Laboratory. Credits: 2
or CHM 3780
- GEO 1300G - Introduction to Earth Sciences. Credits: 4
- GEO 1400G - Weather and Climate. Credits: 4
- GEO 2450G - Oceanography. Credits: 3

- MAT 1441G - Calculus and Analytic Geometry I. Credits: 5
- MAT 2442 - Calculus and Analytic Geometry II. Credits: 5
- PHS 3400 - Methods of Teaching Physical Sciences. Credits: 3
- PHY 1055G - Principles of Astronomy. Credits: 3
- PHY 1056G - Principles of Astronomy Laboratory. Credits: 1
- PHY 1351G - General Physics I. Credits: 3
- PHY 1352G - General Physics I Laboratory. Credits: 1
- PHY 1361 - General Physics II. Credits: 3
- PHY 1362 - General Physics II Laboratory. Credits: 1

2. 34 Hours in the Professional Education Core

- EDF 2555G - Education in a Diverse Society: The Multilingual/Multicultural Classroom. Credits: 3
(May also be used to satisfy General Education (Social and Behavioral Sciences) and Diversity requirement.)
- EDF 4550 - Critical Focus on Education. Credits: 3
(EDF 4450 may be substituted for EDF 4550 if taken prior to Fall 2013)
- EDP 2330 - Educational Psychology: Foundations for Teachers. Credits: 3
(EDP 3331 may be substituted for EDP 2330 if taken prior to Fall 2016.)
- SED 2000 - Inquiry Into Teaching. Credits: 2
- SED 3330 - Instructional Tasks in the Secondary School. Credits: 4
- SED 4330 - Literacy, Assessment, and Differentiation in Secondary Schools. Credits: 3
- SPE 3500 - The Education of Individuals with Exceptional Learning Needs: Access to the General Curriculum. Credits: 3
- STG 4000 - Multicultural/Disabilities Practicum. Credits: 1
- STG 4001 - Student Teaching. Credits: 12 to 16
(Register for 12 semester hours)

Footnote:

(Major GPA based on all biological sciences, chemistry, earth sciences, and physics courses taken at EIU.)

Earth Sciences Specialization

Total Semester Hours required for the Degree: 134 semester hours

The BS in Science with Teacher Licensure (Earth Sciences Specialization) degree program prepares students for a career as a secondary science teacher with emphasis in the earth sciences.

The BS in Science Teacher Licensure with Earth Sciences Specialization Major:

Semester hours required for the Science with Teacher Licensure: Earth Sciences Specialization: 104 including professional education core

1. 70 Semester Hours of Major Courses

- BIO 1500 - General Biology I. Credits: 4
- BIO 1550G - General Biology II. Credits: 4
- CHM 1310G - General Chemistry I. Credits: 3
- CHM 1315G - General Chemistry Laboratory I. Credits: 1
- CHM 1410 - General Chemistry II. Credits: 3
- CHM 1415 - General Chemistry Laboratory II. Credits: 1
- CHM 2730 - Quantitative Analysis. Credits: 3
- CHM 3100 - Practicum in Chemistry. Credits: 1
- GEO 1300G - Introduction to Earth Sciences. Credits: 4
- GEO 1400G - Weather and Climate. Credits: 4
- GEO 2450G - Oceanography. Credits: 3
- GEO 3200 - Human Impacts on the Environment. Credits: 3
- GEO 3410 - Climatology. Credits: 3
or GEO 3510
- GEO 1430 - Historical Geology. Credits: 4

- GEO 2440 - Mineralogy. Credits: 4
- GEO 3405 - Petrology. Credits: 4
- GEO 3510 - Principles of Sedimentation. Credits: 3 or GEO 3410
- GEO 4490 - Invertebrate Paleontology. Credits: 3
- PHS 3400 - Methods of Teaching Physical Sciences. Credits: 3
- PHY 1055G - Principles of Astronomy. Credits: 3
- PHY 1056G - Principles of Astronomy Laboratory. Credits: 1
- PHY 1151G - Principles of Physics I. Credits: 3
- PHY 1152G - Principles of Physics I Laboratory. Credits: 1
- PHY 1161 - Principles of Physics II. Credits: 3
- PHY 1162 - Principles of Physics II Laboratory. Credits: 1

2. 34 Hours in the Professional Education Core

- EDF 2555G - Education in a Diverse Society: The Multilingual/Multicultural Classroom. Credits: 3 (May also be used to satisfy General Education (Social and Behavioral Sciences) and Diversity requirement.)
- EDF 4550 - Critical Focus on Education. Credits: 3 (EDF 4450 may be substituted for EDF 4550 if taken prior to Fall 2013)
- EDP 2330 - Educational Psychology: Foundations for Teachers. Credits: 3 (EDP 3331 may be substituted for EDP 2330 if taken prior to Fall 2016.)
- SED 2000 - Inquiry Into Teaching. Credits: 2
- SED 3330 - Instructional Tasks in the Secondary School. Credits: 4
- SED 4330 - Literacy, Assessment, and Differentiation in Secondary Schools. Credits: 3
- SPE 3500 - The Education of Individuals with Exceptional Learning Needs: Access to the General Curriculum. Credits: 3
- STG 4000 - Multicultural/Disabilities Practicum. Credits: 1
- STG 4001 - Student Teaching. Credits: 12 to 16 (Register for 12 semester hours)

Footnote:

(Major GPA based on all biological sciences, chemistry, earth sciences, and physics courses taken at EIU.)

Physics Specialization

Total Semester Hours required for the Degree: 131 semester hours

Students in the Science Teacher Licensure program with Physics Specialization are preparing for a career in high school science teaching. The physics specialization provides a broad based empirical introduction to the quantitative study of the foundations and applications of physics including the areas of mechanics, electromagnetism, thermodynamics and modern physics for the student who will teach AP, honors, or upper division high school physics.

The BS in Science Teacher Licensure with a Physics Specialization Major:

Semester hours required for the Science with Teacher Licensure: Physics Specialization: 104 including professional education core

1. 70 Semester Hours in Major Courses

- BIO 1500 - General Biology I. Credits: 4
- BIO 1550G - General Biology II. Credits: 4
- CHM 1310G - General Chemistry I. Credits: 3
- CHM 1315G - General Chemistry Laboratory I. Credits: 1
- CHM 1410 - General Chemistry II. Credits: 3
- CHM 1415 - General Chemistry Laboratory II. Credits: 1
- CHM 2730 - Quantitative Analysis. Credits: 3
- CHM 3100 - Practicum in Chemistry. Credits: 1
- GEO 1300G - Introduction to Earth Sciences. Credits: 4
- GEO 1400G - Weather and Climate. Credits: 4
- GEO 2450G - Oceanography. Credits: 3

- MAT 1441G - Calculus and Analytic Geometry I. Credits: 5
- MAT 2442 - Calculus and Analytic Geometry II. Credits: 5
- MAT 2443 - Calculus and Analytic Geometry III. Credits: 4
- PHS 3400 - Methods of Teaching Physical Sciences. Credits: 3
- PHY 1351G - General Physics I. Credits: 3
- PHY 1352G - General Physics I Laboratory. Credits: 1
- PHY 1361 - General Physics II. Credits: 3
- PHY 1362 - General Physics II Laboratory. Credits: 1
- PHY 1371 - General Physics III. Credits: 3
- PHY 1372 - General Physics III Laboratory. Credits: 1
- PHY 3150 - Electronics. Credits: 4
- PHY 3500A - Laboratory Practicum A. Credits: 1
or PHY 3500B or PHY3500D
- PHY 4000 - Seminar in Physics. Credits: 1
- PHY 4470 - Optics. Credits: 4

2. 34 Hours in the Professional Education Core

- EDF 2555G - Education in a Diverse Society: The Multilingual/Multicultural Classroom. Credits: 3
(May also be used to satisfy General Education (Social and Behavioral Sciences) and Diversity requirement.)
- EDF 4550 - Critical Focus on Education. Credits: 3
(EDF 4450 may be substituted for EDF 4550 if taken prior to Fall 2013)
- EDP 2330 - Educational Psychology: Foundations for Teachers. Credits: 3
(EDP 3331 may be substituted for EDP 2330 if taken prior to Fall 2016.)
- SED 2000 - Inquiry Into Teaching. Credits: 2
- SED 3330 - Instructional Tasks in the Secondary School. Credits: 4
- SED 4330 - Literacy, Assessment, and Differentiation in Secondary Schools. Credits: 3
- SPE 3500 - The Education of Individuals with Exceptional Learning Needs: Access to the General Curriculum. Credits: 3
- STG 4000 - Multicultural/Disabilities Practicum. Credits: 1
- STG 4001 - Student Teaching. Credits: 12 to 16
(Register for 12 semester hours)

Footnote:

(Major GPA based on all biological sciences, chemistry, earth sciences, and physics courses taken at EIU.)

Social Science Studies Program

Bonnie Laughlin-Schulz, Chairperson

Department Telephone: 217.581.6362

Social Science Teaching (B.A.)

Standard High School Certificate*

The Social Science Teaching Major is designed to meet the needs of students who wish to teach Social Studies subjects in Illinois secondary schools. The major's disciplinary curriculum consists of courses in the social sciences (economics, geography, history, political science, psychology, sociology and anthropology). Students must receive a grade of "C" or higher in all courses which apply to the major and must maintain a major grade point average of 3.0 or higher and a cumulative grade point average of 2.75 or higher to complete the program. For students also wanting to be eligible to teach in the middle school, additional Middle Level Education courses are required.

The Social Science Teaching Major comprises

1. 40 hours of general education (Note: Some courses required by the Social Science Teaching major meet general education requirements);
2. 34 hours in the professional education core (Regular program: SED 2000, EDF 2555G, SED 3330, EDP 2330, SED 4330, EDF 4550, SPE 3500, STG 4000, STG 4001);
3. 67-68 hours in major courses (see courses listed below under "Required Major Courses" for each designation).

This major requires that students follow and meet the requirements for Admission, Retention and Graduation from Teacher Licensure programs as described in the Teacher Licensure Programs section of this catalog and as explained at the University Admission to Teacher Education Meeting which all students must attend. Students must gain University Approval to Take Teacher Education Courses no later than the end of their first semester Junior year in order to use this suggested plan. Additional information on Admission, Retention and Graduation for Teacher Licensure programs can be found on the College of Education & Professional Studies website at <http://www.eiu.edu/ceps/teached>.

All students must pass the Illinois Licensure Test of Academic Proficiency (TAP). Students can substitute ACT plus Writing or SAT scores for the TAP if they meet the minimum scores set by the Illinois State Board of Education. These scores can be found at <http://www.eiu.edu/ceps/teached> or by contacting the CEPS Dean's Office. Students should complete this requirement no later than their sophomore year.

Students must receive a "C" or better in all courses used toward graduation, regardless of where they are taken. This includes general education, professional education, major and minor courses, all university required courses, and electives. Students must maintain a minimum cumulative and major GPA of 2.65 in order to continue in the education program. Students must receive a "C" or better in all coursework, and maintain a minimum cumulative GPA of 2.75 and major GPA of 3.00, in order to be approved for student teaching. Approval for student teaching requires that the minimum GPA be held at the beginning of the semester prior to the student-teaching semester. Students must also pass the requisite state content test in order for student teaching approval.

Students must complete the professional education coursework following the Regular Secondary Education Professional Education Course Sequence. Information is also available in the Teacher Licensure Program section of this catalog.

Students must pass the edTPA (teacher performance assessment) before they can receive their teaching license in Illinois or any other state. Students will make their edTPA submission during student teaching.

Geography Designation

Total Semester Hours required for the Degree: 123 semester hours

The Social Science Teaching major with a Geography designation comprises:

40 Semester Hours of General Education

34 Hours in the Professional Education Core

- EDF 2555G - Education in a Diverse Society: The Multilingual/Multicultural Classroom. Credits: 3
(May also be used to satisfy General Education (Social and Behavioral Sciences) and Diversity requirement.)
- EDF 4550 - Critical Focus on Education. Credits: 3
(EDF 4450 may be substituted for EDF 4550 if taken prior to Fall 2013)
- EDP 2330 - Educational Psychology: Foundations for Teachers. Credits: 3
(EDP 3331 may be substituted for EDP 2330 if taken prior to Fall 2016.)
- SED 2000 - Inquiry Into Teaching. Credits: 2
- SED 3330 - Instructional Tasks in the Secondary School. Credits: 4
- SED 4330 - Literacy, Assessment, and Differentiation in Secondary Schools. Credits: 3
- SPE 3500 - The Education of Individuals with Exceptional Learning Needs: Access to the General Curriculum. Credits: 3
- STG 4000 - Multicultural/Disabilities Practicum. Credits: 1
- STG 4001 - Student Teaching. Credits: 12 to 16
(register for 12 semester hours)

68 Hours in Major Courses

- 1 GEO Elective. Credits: 3
- ANT 2200G - Introduction to Anthropology. Credits: 3
- ECN 2801G - Principles of Macroeconomics. Credits: 3
- ECN 2802G - Principles of Microeconomics. Credits: 3
- GEO 1100G - Cultural Geography. Credits: 3
- GEO 1120G - The Natural Environment. Credits: 4
- GEO 1200G - World Regional Geography. Credits: 3
- GEO 1400G - Weather and Climate. Credits: 4
- GEO 3025 - Geography of the United States and Canada. Credits: 3
- GEO 3200 - Human Impacts on the Environment. Credits: 3
- GEO 3420 - Geomorphology: Surficial Processes and Landforms. Credits: 3
- HIS 1500G - Roots of the Modern World: Society and Religion. Credits: 3
- HIS 2010G - History of the United States to 1877. Credits: 3
- HIS 2020G - History of the United States Since 1877. Credits: 3
- HIS 2560 - Early Modern World History. Credits: 3
- HIS 3555 - Modern World History. Credits: 3
- PLS 1153G - American Government and Constitution. Credits: 3
- PLS 2253G - Introduction to International Relations. Credits: 3
- PLS 3603 - State and Local Government. Credits: 3
- PSY 1879G - Introductory Psychology. Credits: 3
- SOC 1838G - Introductory Sociology. Credits: 3
- SOS 2400 - Introduction to Teaching Social Studies. Credits: 1
- SOS 3400 - Social Studies Teaching Methods. Credits: 3

Footnotes:

(Major GPA based on all anthropology, economics, geography, history, political science, psychology, sociology and social science courses taken at EIU.)

Satisfactory completion of this designation requires:

- a. a grade of C or higher in each course that applies to the 72-80 semester hours of courses required, regardless of where taken;
- b. a major grade-point average of at least 3.0 and cumulative grade-point average of at least 2.75 in all courses attempted at EIU;
- c. at least 45 semester hours of the requirements for the social science major must be in courses taken at EIU.

Students must complete all the professional coursework under the Regular Secondary Education Program.

History

See the History with Teacher Licensure Option.

Political Science Designation

Total Semester Hours required for the Degree: 134 semester hours

Semester Hours required for the Social Science Teaching: Political Science Designation: 107

The Social Science Teaching major with a Political Science designation comprises:

40 Semester Hours of General Education

34 Hours in the Professional Education Core

- EDF 2555G - Education in a Diverse Society: The Multilingual/Multicultural Classroom. Credits: 3
(May also be used to satisfy General Education (Social and Behavioral Sciences) and Diversity requirement.)
- EDF 4550 - Critical Focus on Education. Credits: 3
(EDF 4450 may be substituted for EDF 4550 if taken prior to Fall 2013)
- EDP 2330 - Educational Psychology: Foundations for Teachers. Credits: 3
(EDP 3331 may be substituted for EDP 2330 if taken prior to Fall 2016.)

- SED 2000 - Inquiry Into Teaching. Credits: 2
- SED 3330 - Instructional Tasks in the Secondary School. Credits: 4
- SED 4330 - Literacy, Assessment, and Differentiation in Secondary Schools. Credits: 3
- SPE 3500 - The Education of Individuals with Exceptional Learning Needs: Access to the General Curriculum. Credits: 3
- STG 4000 - Multicultural/Disabilities Practicum. Credits: 1
- STG 4001 - Student Teaching. Credits: 12 to 16 (register for 12 semester hours)

72 Hours in Major Courses

- One SOS elective (GEO 3200; SOC 2721; PSY 3515; PSY 3780; or another approved SOS elective). Credits: 3
- ANT 2200G - Introduction to Anthropology. Credits: 3
- ECN 2801G - Principles of Macroeconomics. Credits: 3
- ECN 2802G - Principles of Microeconomics. Credits: 3
- GEO 1100G - Cultural Geography. Credits: 3
- GEO 1200G - World Regional Geography. Credits: 3
- HIS 1500G - Roots of the Modern World: Society and Religion. Credits: 3
- HIS 2010G - History of the United States to 1877. Credits: 3
- HIS 2020G - History of the United States Since 1877. Credits: 3
- HIS 2560 - Early Modern World History. Credits: 3
- HIS 3555 - Modern World History. Credits: 3
- PLS 1003 - Introduction to Comparative Politics. Credits: 3
- PLS 1153G - American Government and Constitution. Credits: 3
- PLS 2033 - Research Methods in Political Science. Credits: 3
- PLS 2253G - Introduction to International Relations. Credits: 3
- PLS 3203 - American Foreign Policy. Credits: 3
- PLS 3543 - Civil Liberties in America. Credits: 3
- PLS 3603 - State and Local Government. Credits: 3
- PLS 3753 - The American Presidency. Credits: 3
- PSY 1879G - Introductory Psychology. Credits: 3
- SOC 1838G - Introductory Sociology. Credits: 3
- SOS 2400 - Introduction to Teaching Social Studies. Credits: 1
- SOS 3400 - Social Studies Teaching Methods. Credits: 3

Footnotes:

(Major GPA based on all anthropology, economics, geography, history, political science, psychology, sociology and social science courses taken at EIU.)

Satisfactory completion of this designation requires:

- a grade of C or higher in each course that applies to the 72-80 semester hours of courses required, regardless of where taken;
- a major grade-point average of at least 3.0 and cumulative grade-point average of at least 2.75 in all courses attempted at EIU;
- at least 45 semester hours of the requirements for the social science major must be in courses taken at EIU.

Students must complete all the professional coursework under the Regular Secondary Education Program.

Psychology Designation

Total Semester Hours required for the Degree: 126 semester hours

The Social Science Teaching major with a Psychology designation comprises:

40 Semester Hours of General Education

34 Hours in the Professional Education Core

- EDF 2555G - Education in a Diverse Society: The Multilingual/Multicultural Classroom. Credits: 3 (May also be used to satisfy General Education (Social and Behavioral Sciences) and Diversity requirement.)
- EDF 4550 - Critical Focus on Education. Credits: 3 (EDF 4450 may be substituted for EDF 4550 if taken prior to Fall 2013)

- EDP 2330 - Educational Psychology: Foundations for Teachers. Credits: 3 (EDP 3331 may be substituted for EDP 2330 if taken prior to Fall 2016.)
- SED 2000 - Inquiry Into Teaching. Credits: 2
- SED 3330 - Instructional Tasks in the Secondary School. Credits: 4
- SED 4330 - Literacy, Assessment, and Differentiation in Secondary Schools. Credits: 3
- SPE 3500 - The Education of Individuals with Exceptional Learning Needs: Access to the General Curriculum. Credits: 3
- STG 4000 - Multicultural/Disabilities Practicum. Credits: 1
- STG 4001 - Student Teaching. Credits: 12 to 16 (register for 12 semester hours)

67 Hours in Major Courses

- ANT 2200G - Introduction to Anthropology. Credits: 3
- ECN 2801G - Principles of Macroeconomics. Credits: 3
- ECN 2802G - Principles of Microeconomics. Credits: 3
- GEO 1100G - Cultural Geography. Credits: 3
- GEO 1200G - World Regional Geography. Credits: 3
- HIS 1500G - Roots of the Modern World: Society and Religion. Credits: 3
- HIS 2010G - History of the United States to 1877. Credits: 3
- HIS 2020G - History of the United States Since 1877. Credits: 3
- HIS 2560 - Early Modern World History. Credits: 3
- HIS 3555 - Modern World History. Credits: 3
- PLS 1153G - American Government and Constitution. Credits: 3
- PLS 2253G - Introduction to International Relations. Credits: 3
- PLS 3603 - State and Local Government. Credits: 3
- PSY 1879G - Introductory Psychology. Credits: 3
- PSY 3310 - Biological Psychology. Credits: 3
- PSY 3515 - Child Psychology. Credits: 3
- PSY 3590 - Theories of Personality. Credits: 3
- PSY 3620 - Psychology of Learning. Credits: 3
- PSY 3780 - Abnormal Psychology. Credits: 3
- PSY 3870 - Social Psychology. Credits: 3
- SOC 1838G - Introductory Sociology. Credits: 3
- SOS 2400 - Introduction to Teaching Social Studies. Credits: 1
- SOS 3400 - Social Studies Teaching Methods. Credits: 3

Footnotes:

(Major GPA based on all anthropology, economics, geography, history, political science, psychology, sociology and social science courses taken at EIU.)

Satisfactory completion of this designation requires:

- a grade of C or higher in each course that applies to the 72-80 semester hours of courses required, regardless of where taken;
- a major grade-point average of at least 3.0 and cumulative grade-point average of at least 2.75 in all courses attempted at EIU;
- at least 45 semester hours of the requirements for the social science major must be in courses taken at EIU.

Students must complete all the professional coursework under the Regular Secondary Education Program.

Sociology-Anthropology Designation

Total Semester Hours required for the Degree: 126 semester hours

Students are advised that opportunities for teaching sociology/anthropology at the secondary level are limited.

The Social Science Teaching major with a Sociology/Anthropology designation comprises:

40 Semester Hours of General Education

34 Hours in the Professional Education Core

- EDF 2555G - Education in a Diverse Society: The Multilingual/Multicultural Classroom. Credits: 3
(May also be used to satisfy General Education (Social and Behavioral Sciences) and Diversity requirement.)
- EDF 4550 - Critical Focus on Education. Credits: 3
(EDF 4450 may be substituted for EDF 4550 if taken prior to Fall 2013)
- EDP 2330 - Educational Psychology: Foundations for Teachers. Credits: 3
(EDP 3331 may be substituted for EDP 2330 if taken prior to Fall 2016.)
- SED 2000 - Inquiry Into Teaching. Credits: 2
- SED 3330 - Instructional Tasks in the Secondary School. Credits: 4
- SED 4330 - Literacy, Assessment, and Differentiation in Secondary Schools. Credits: 3
- SPE 3500 - The Education of Individuals with Exceptional Learning Needs: Access to the General Curriculum. Credits: 3
- STG 4000 - Multicultural/Disabilities Practicum. Credits: 1
- STG 4001 - Student Teaching. Credits: 12 to 16
(register for 12 semester hours)

67 Hours in Major Courses

- ANT 2200G - Introduction to Anthropology. Credits: 3
- ANT 3712 - Archaeology of the Earliest Civilizations. Credits: 3
- ECN 2801G - Principles of Macroeconomics. Credits: 3
- ECN 2802G - Principles of Microeconomics. Credits: 3
- GEO 1100G - Cultural Geography. Credits: 3
- GEO 1200G - World Regional Geography. Credits: 3
- HIS 1500G - Roots of the Modern World: Society and Religion. Credits: 3
- HIS 2010G - History of the United States to 1877. Credits: 3
- HIS 2020G - History of the United States Since 1877. Credits: 3
- HIS 2560 - Early Modern World History. Credits: 3
- HIS 3555 - Modern World History. Credits: 3
- PLS 1153G - American Government and Constitution. Credits: 3
- PLS 2253G - Introduction to International Relations. Credits: 3
- PLS 3603 - State and Local Government. Credits: 3
- PSY 1879G - Introductory Psychology. Credits: 3
- SOC 1838G - Introductory Sociology. Credits: 3
- SOC 2721 - Social Stratification. Credits: 3
- SOC 2780 - The Sociology of Deviant Behavior. Credits: 3
- SOC 3050 - Sociological Theory. Credits: 3
- SOC 3620 - Research Methods for Collecting Social Data. Credits: 3
- SOC 3650 - Social Psychology. Credits: 3
- SOS 2400 - Introduction to Teaching Social Studies. Credits: 1
- SOS 3400 - Social Studies Teaching Methods. Credits: 3

Footnotes:

(Major GPA based on all anthropology, economics, geography, history, political science, psychology, sociology and social science courses taken at EIU.)

Satisfactory completion of this designation requires:

- a. a grade of C or higher in each course that applies to the 72-80 semester hours of courses required, regardless of where taken;
- b. a major grade-point average of at least 3.0 and cumulative grade-point average of at least 2.75 in all courses attempted at EIU;
- c. at least 45 semester hours of the requirements for the social science major must be in courses taken at EIU.

Students must complete all the professional coursework under the Regular Secondary Education Program.

Department of Sociology & Anthropology

Department Faculty

Darren Hendrickson, Chairperson

Benedict, W.R.; Cunningham, R.; Deerman, E.; Gillespie, M.; Glaros, A.; Hendrickson, D.; Holly, D.; Lovekamp, W.; Smith, W.; Soboroff, S.; Stevens, J.; Woodley, V.

Department Telephone: 217.581.3123

Criminology and Criminal Justice (B.A.)

Total Semester Hours required for the Degree: 120 semester hours

Semester hours required for the Criminology and Criminal Justice major: 49 semester hours

Required Core Classes (31 hours)

- CRM 1520 - Criminal Investigation. (See footnote 1)
- CRM 1600 - Criminal Evidence and Procedures. (See footnote 1)
- CRM 2761 - Introduction to Criminology. Credits: 3
- SOC 2840 - Racial and Cultural Minorities. Credits: 3
- PHI 3070 - Philosophy of Law. Credits: 3
- PLS 3523 - Criminal Law. Credits: 3
or
- PLS 3543 - Civil Liberties in America. Credits: 3
- SOC 3620 - Research Methods for Collecting Social Data. Credits: 3
- SOC 3630 - Statistical Analysis of Social Data. Credits: 4
- CRM 3650 - Criminological Theory. Credits: 3
- CRM 4700 - Contemporary Topics in Criminology and Criminal Justice. Credits: 3

15-18 hours from Criminology courses of which at least 9 hours must be courses numbered 3000 or above (See footnote 2)

0-3 semester hours from (See footnote 3):

- CMN 3660 - Communication and Conflict Management. Credits: 3
- ECN 4850 - Economic Analysis of Law. Credits: 3
- HST 3330 - Advanced Driving Maneuvers. Credits: 2
- HST 4800 - Drugs and Society. Credits: 3
- PLS 3233 - International Terrorism. Credits: 3
- PLS 3513 - Politics and the Legal Process. Credits: 3
- PLS 3253 - Human Rights and International Law. Credits: 3
- PLS 4853 - The Supreme Court. Credits: 3
- PSY 3780 - Abnormal Psychology. Credits: 3
- PSY 4260 - Crisis Intervention. Credits: 3
- WST 2903 - Women and Gendered Violence. Credits: 3

Footnotes:

¹ Course taken at a community college.

² Inclusive of SOC 2750G – Social Problems in Contemporary Society.

³ See specific course descriptions in the Undergraduate Catalog for any course prerequisites.

Sociology (B.A.)

Total Semester Hours required for the Degree: 120 semester hours

Semester Hours required for the Sociology Major: 44 semester hours

Required courses for all Sociology Majors: 23 semester hours

- ANT 2200G - Introduction to Anthropology. Credits: 3
- SOC 1838G - Introductory Sociology. Credits: 3
- SOC 2000 - Sociology Professional Seminar. Credits: 1
- SOC 2721 - Social Stratification. Credits: 3
- SOC 3050 - Sociological Theory. Credits: 3
- SOC 3620 - Research Methods for Collecting Social Data. Credits: 3
- SOC 3630 - Statistical Analysis of Social Data. Credits: 4
- SOC 4900 - Current Issues in Sociology. Credits: 3

And 21 semester hours of SOC Electives

(inclusive of up to 3 credits in Anthropology; exclusive of internship courses) chosen in consultation with the student's advisor.

To be certified for graduation with a major in sociology, a student must achieve a CGPA of at least 2.0 in the core courses in the major used to satisfy graduation requirements. (See footnote 1.)

Footnotes:

(Major GPA based on all sociology courses taken at EIU, Anthropology 2200G and up to 3 additional credits of Anthropology if taken at EIU.)

¹ If the student believes there are extenuating circumstances relevant to the failure to meet this requirement, filing an appeal to the Departmental Grade Appeals Committee is possible

If foreign language is exempt, 45 hours of free electives are available and provide the opportunity for the student to complete one or more minors or even selective majors, all within the four years.

Sociology-Anthropology Teacher Licensure

See the Social Science Teaching Major, (Sociology-Anthropology Designation).

Sociology Honors Program

Departmental honors require that students entering the program have an EIU minimum cumulative GPA of 3.50 on a 4.0 scale, and permission of the Dean of the Honors College and the departmental honors coordinator. Both native and transfer students may participate in the program. All students must complete 12-13 hours of honors, including 3 hours for honors thesis. Any tenured/tenure-track faculty member with Ph.D. completed and one year teaching experience at EIU may direct honors independent study, honors research, and honors thesis, the determinant being faculty expertise and student research interest. All honors research activities are potentially subject to review by the Institutional Review Board depending on the nature and focus of the research.

Total Semester Hours: 12-13

3-4 hours from:

- SOC 3290 - Contemporary Social Theory, Honors. Credits: 3
- SOC 3691 - Social Statistics, Honors. Credits: 4
- SOC 3692 - Research Methods for Collecting Social Data, Honors Credits: 3

9 hours from:

- SOC 4444 - Honors Independent Study. Credits: 1 to 3
- SOC 4555 - Honors Research Credits: 3
- SOC 4644 - Sociology Honors Thesis. Credits: 3

Criminology Minor

The interdisciplinary Criminology minor allows students to select one of two options, Criminal Justice or Criminal Administration, to better suit their anticipated career interests and to better complement their majors. Double counting coursework in concert with students' majors and other minors is permitted by the minor in criminology. Coursework constituting the criminology minor may include Honors Programs course equivalents; existing prerequisites for courses must be satisfied.

Total Semester Hours: 21

Core Requirements:

- PHI 3070 - Philosophy of Law. Credits: 3
- PLS 3543 - Civil Liberties in America. Credits: 3
Or PLS 3513 - Politics and the Legal Process
Or PLS 3523 - Criminal Law
- SOC 2761 - Introduction to Criminology. Credits: 3
(See Footnote *)

AND

Criminal Justice Option

Any 4 of the following courses:

- PLS 3523 - Criminal Law. Credits: 3
Or PLS 3513 - Politics and the Legal Process
Or PLS 3543 - Civil Liberties in America
(See Footnote **)
- PSY 3780 - Abnormal Psychology. Credits: 3
(See Footnote *)
- SOC 2750G - Social Problems in Contemporary Society. Credits: 3
- SOC 2780 - The Sociology of Deviant Behavior. Credits: 3
- SOC 3770 - Sociological Analysis of Crime and Criminal Justice System. Credits: 3
- SOC 3780 - Policing Society: A Sociological Analysis. Credits: 3
(See Footnote *)
- SOC 4750 - Sociological Analysis of Juvenile Delinquency. Credits: 3
(See Footnote *)
- SOC 4790 - The Correctional Process: A Sociological Analysis. Credits: 3
(See Footnote *)

OR

Criminal Administration Option

Any 4 of the following courses:

- BUS 2750 - Legal and Social Environment of Business. Credits: 3
(See Footnote *)
- ECN 4850 - Economic Analysis of Law. Credits: 3
(See Footnote *)
- PLS 3513 - Politics and the Legal Process. Credits: 3
Or PLS 3523 - Criminal Law
Or PLS 3543 - Civil Liberties in America
(See Footnote **)
- PLS 3903 - Women & Politics. Credits: 3
- PLS 4793 - Civic and Nonprofit Leadership. Credits: 3
(See Footnote *)
- PLS 4853 - The Supreme Court. Credits: 3
(See Footnote *)
- PLS 4873 - Human Resource Management in Public and Nonprofit Organizations. Credits: 3
(See Footnote *)
- PLS 4893 - Budgeting in Government and Nonprofit Organizations. Credits: 3
(See Footnote *)

- PSY 3780 - Abnormal Psychology. Credits: 3
(See Footnote *)
- SOC 3770 - Sociological Analysis of Crime and Criminal Justice System. Credits: 3
(See Footnote *)

Footnote:

*prerequisite required; see course description.

**Criminal Justice and Criminal Administration Option students may not double count PLS 3513 (Politics and the Legal Process), PLS 3523 (Criminal Law) or PLS 3543 (Civil Liberties in America) for Option elective requirements if the course is taken to meet the Minor's Core Requirements.

Sociology Minor

Total Semester Hours: 18

3 semester hours in:

- SOC 1838G - Introductory Sociology. Credits: 3

AND

15 semester hours of electives in Sociology (inclusive of ANT 2200G/ANT 2290G; exclusive of internship courses and 3970), of which at least 9 hours must be courses numbered 3000 or above, selected in consultation with a Sociology advisor of the student's choosing.