



# BIO-PHARMACY

DEPARTMENT OF BIOLOGICAL SCIENCES  
AT EASTERN ILLINOIS UNIVERSITY

NAME	
E NUMBER	
CATALOG	

SP20

## GENERAL EDUCATION: 30-38 HRS

### LANGUAGE: 9 HRS

Course	Hours	Grade	Semester
ENG 1001G Composition & Language	3		
ENG 1002G Composition & Literature	3		
CMN 1310G Intro to Speech	3		

Grade of "C" or better is required

### SCIENCE AWARENESS: 7HRS

Completed in major.

### MATHEMATICS: 3-5 HRS

Completed in major.

### HUMANITIES/FINE ARTS\*: 9 HRS

Course	Hours	Grade	Semester
PHI 1000G# Intro to Philosophy	3		
OR PHI 1900G# Logic & Critical Reasoning	3		
Fine Arts	3		
Humanities	3		

## SOCIAL/BEHAVIORAL SCIENCES\*: 9 HRS

Course	Hours	Grade	Semester
PSY 1879G Intro to Psychology	3		
ECN 2800G OR ECN 2800G OR ECN 2802G# Economics of Social Issues/Macro/Micro	3		
	3		

\* One course must meet Cultural Diversity requirement.

### SENIOR SEMINAR: 3 HRS

Course	Hours	Grade	Semester
EIU _____	3		

Seminar topic must be outside the major area. See Undergraduate Catalog for Senior Seminars that exclude Biological Sciences majors.

### FOREIGN LANGUAGE: 0-8 HRS

EXEMPT?  YES  NO

Exempt if 2yrs in high school of a single foreign language with average grade of "C" or better.

Course	Hours	Grade	Semester

## SCIENCE CORE: 51-53 HRS

Biology Courses	Hours	Grade	Semester
BIO 1150 Biology Forum	1		
BIO 1500 General Biology I	4		
BIO 1550G* General Biology II	4		
BIO 3120* Molecular & Cell Biology	4		
BIO 3200* Genetics	4		
BIO 2220* Anatomy & Physiology II	4		
BIO 3180* Ecology and Evolution	4		
Physics Courses	Hours	Grade	Semester
PHY 1151G* Principles Physics I	3		
PHY 1152G* Principles Physics I Lab	1		
PHY 1161* Principles Physics II	3		
PHY 1162* Principles Physics II Lab	1		

Math Courses	Hours	Grade	Semester
MAT 2110G Brief Calculus	3		
MAT 2250G* Elementary Statistics	4		
Chemistry Courses	Hours	Grade	Semester
CHM 1310G General Chemistry I	3		
CHM 1315G General Chemistry I Lab	1		
CHM 1410* General Chemistry II	3		
CHM 1415* General Chemistry II Lab	1		
CHM 2440 Organic Chemistry I	3		
CHM 2445 Organic Chemistry I Lab	1		

\*Additional prerequisite classes may be required. See Undergraduate Catalog

\*BIO 2210 (Anatomy and Physiology I) prerequisite. BIO 2210 counts as BIO elective credit.

## MAJOR ELECTIVES: 21 HRS

21 hours of course work in Biological Sciences (with the exception of BIO 3400, workshops, and courses designed for General Education) or Mathematics or Physical Sciences courses above 2000 (with the exception of general education and CHM 2310). A minimum of 15 hrs must be taken in Biological Sciences.

Course	Hours	Grade	Semester
BIO 2210 Anatomy and Physiology I	4		
BIO 3300# Microbiology	4		
CHM 2840 Organic Chemistry II	3		
CHM 2845 Organic Chemistry II Lab	1		
CHM 3450# Biochemistry	3		

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| <ul style="list-style-type: none"> <li>BIO 2210 (4) Anatomy and Physiology I</li> <li>BIO 3210 (4) Immunology</li> <li>BIO 3300 (4) General Microbiology</li> <li>BIO 3312 (3) Horticulture</li> <li>BIO 3322 (3) Dendrology</li> <li>BIO 3450 (1-3) Independent Study</li> <li>BIO 3451 (1-3) Undergraduate Research</li> <li>BIO 3610 (3) Survey of Algae &amp; Fungi</li> <li>BIO 3612 (3) Plant Evolution &amp; Diversity</li> <li>BIO 3620 (4) Funct. Comp. Anatomy</li> <li>BIO 3622 (4) Embryology</li> <li>BIO 3624 (3) Histology</li> <li>BIO 3628 (4) Evolutionary Medicine</li> <li>BIO 3690 (4) Clinical Rotation</li> <li>BIO 3700 (4) Parasitology</li> <li>BIO 3710 (3) Plant-Animal Interactions</li> <li>BIO 3720 (4) Entomology</li> <li>BIO 3740 (3) Clinical Mycology</li> <li>BIO 3810 (3) Freshwater Ecology</li> <li>BIO 3850 (3) Environmental Biology</li> <li>BIO 3888G (3) Tropical/Marine Ecology</li> </ul> | <ul style="list-style-type: none"> <li>BIO 3950 (3) Vertebrate Natural History</li> <li>BIO 3952 (3) Invertebrate Natural History</li> <li>BIO 3960 (1-4) Special Topics</li> <li>BIO 4400 (1) Teaching in the Lab</li> <li>BIO 4751 (3) Adv. Molec. &amp; Cell Biol.</li> <li>BIO 4800 (2) Research Techniques</li> <li>BIO 4810 (4) Plant Ecology</li> <li>BIO 4812 (3) Fisheries Ecology &amp; Mgmt</li> <li>BIO 4814 (3) Conservation Biology</li> <li>BIO 4816 (3) Biotic Communities</li> <li>BIO 4818 (4) Environmental Microbiology</li> <li>BIO 4820 (4) Spatial Analysis for Environmental Sciences</li> <li>BIO 4830 (3) Comp. Vertebrate Physiology</li> <li>BIO 4832 (4) Animal Behavior</li> <li>BIO 4833 (4) Neurobiology of Diseases</li> <li>BIO 4834 (3) Neurobiology</li> <li>BIO 4835 (3) Advanced Neurobiology</li> <li>BIO 4836 (4) Pathogenic Microbiology</li> </ul> | <ul style="list-style-type: none"> <li>BIO 4892 (4) Intro. Paleobotany</li> <li>BIO 4914 (3) Plant Anatomy</li> <li>BIO 4920 (3) Medicinal Plants</li> <li>BIO 4940 (3) Phycology</li> <li>BIO 4942 (3) Mycology</li> <li>BIO 4944 (3) Lichens</li> <li>BIO 4946 (3) Bryology</li> <li>BIO 4948 (3) Plant Taxonomy</li> <li>BIO 4950 (3) Ichthyology</li> <li>BIO 4952 (3) Herpetology</li> <li>BIO 4954 (3) Ornithology</li> <li>BIO 4956 (3) Mammalogy</li> <li>BIO 4960 (3) Wetland &amp; Aqua. Vasc. Plants</li> <li>BIO 4984 (3) Organic Evolution</li> </ul> |
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Courses numbered 5000-5499 inclusive, may be taken by a senior whose graduation requirements average 2.75 or higher, with the permission of the instructor and the Dean of the Graduate School.

# Required by some Pharmacy Schools

^ Recommended by some Pharmacy Schools

**BE PREPARED: UPDATE THIS FORM BEFORE MEETING WITH YOUR ADVISOR**

Pharmacists are essential healthcare professionals who enhance patient care and promote wellness. When pharmacists are involved in patient care, outcomes improve and costs decline. Pharmacy is a diverse and rewarding career, with opportunities for patient care, scientific research and innovation.

To prepare for a career in pharmacy, a student must complete a Doctor of Pharmacy (Pharm. D.) degree at a professional college of pharmacy. A Pharm.D. degree consists of 4 academic years of professional education. Although it is possible to apply for a Pharm.D. program after completing 60 semester hours at the undergraduate level, it is not the norm. Many students complete at least 3 years of undergraduate education, while most complete their baccalaureate degree. A "C" or better in all prerequisite coursework and a minimum of a 2.5 GPA are required, although the average accepted student has around a 3.5 GPA.

Pharmacy colleges encourage or require applicants to have volunteer or paid experience working with patients in a pharmacy or health-related setting (hospital, nursing home, etc.). Ongoing work or volunteer experience in a pharmacy setting may be an important factor in the admissions process. Most pharmacy degree programs require 1-4 letters of recommendation typically from a science professor and a pharmacist.

Most pharmacy programs utilize the PharmCAS application service ([www.pharmcas.org](http://www.pharmcas.org)). Applicants can apply as early as July one year prior to when they plan to enter a program and must take the PCAT exam. The PCAT (Pharmacy College Admissions Test) is offered a limited number of times throughout the year. Visit [pcatweb.info](http://pcatweb.info) for specific dates for the academic year. The potential applicant needs to take the PCAT no later than October of the year prior to entry. The PCAT has 5 sections: Writing, Biological Processes, Chemical Processes, Critical Reading and Quantitative Reasoning. Scores range from 100-300 with the minimal accepted score in the 50th percentile.

## WHAT MAKES YOU UNIQUE FROM OTHER APPLICANTS?

### Healthcare Experience

- *Volunteer or work: hospitals, clinics, nursing homes, assisted living centers, crisis nursery, rehab centers are a few examples.*
- *Shadow/volunteer/work with pharmacists in a variety of settings.*

### Leadership Experience

*Pharmacists are leaders. Demonstrated leadership skills are a must. Campus, church, and community organizations provide excellent leadership opportunities.*

## RESOURCES:

**American Association of Colleges of Pharmacy**  
[www.aacp.org](http://www.aacp.org)

**Chicago College of Pharmacy, Midwestern University**  
[www.midwestern.edu/ccp](http://www.midwestern.edu/ccp)

**Chicago State University College of Pharmacy**  
[www.csu.edu/pharmacy/](http://www.csu.edu/pharmacy/)

**Roosevelt University**  
[www.roosevelt.edu/Pharmacy](http://www.roosevelt.edu/Pharmacy)

**Rosalind Franklin University, North Chicago, IL**  
[rosalindfranklin.edu/collegeofpharmacy/](http://rosalindfranklin.edu/collegeofpharmacy/)

**Southern Illinois College of Pharmacy**  
[www.siu.edu/pharmacy/](http://www.siu.edu/pharmacy/)

**University of Illinois at Chicago College of Pharmacy**  
[www.uic.edu/pharmacy](http://www.uic.edu/pharmacy)

## SAMPLE COURSE SEQUENCE:

The suggested sequence assumes that the foreign language requirement has been completed.

FRESHMAN	
FALL	SPRING
ENG 1001G BIO 1500 CHM 1310G/1315G PSY 1879G BIO 1150	ENG 1002G BIO 1550G CHM 1410/1415 ECN 2800G MAT Prereq or Stats
SOPHOMORE	
FALL	SPRING
BIO 3120 CHM 2440/2445 MAT 2110G Gen Ed Elective	BIO 3200 CHM 2840/2845 BIO 2210 Gen Ed Elective
JUNIOR	
FALL	SPRING
BIO 2220 PHY 1151G/1152G (Fall ONLY) CHM 3450 (Fall ONLY) BIO Elective >3000 PCAT Prep	BIO 4750 OR MAT 2250G (if not taken in FRESHMAN SPR) PHY 1161/1162 (Spring ONLY) BIO Elective >3000 CMN 1310G PCAT Exam/Apply to Pharmacy School
SENIOR	
FALL	SPRING
EIU 4***G BIO Elective >3000 Gen Ed Elective Free Elective Pharmacy School Admission Interviews	BIO 3180 BIO Elective >3000 Gen Ed Elective Free Elective Exit Interview