



# BIO-MEDICINE

DEPARTMENT OF BIOLOGICAL SCIENCES  
AT EASTERN ILLINOIS UNIVERSITY

NAME	
E NUMBER	
CATALOG	

F17

## 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		
Fine Arts	3		
Humanities / Fine Arts	3		

## SOCIAL/BEHAVIORAL SCIENCES\*: 9 HRS

Course	Hours	Grade	Semester
PSY 1879G Intro to Psychology	3		
SOC 1838G Intro to Sociology	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 1161G* Principles Physics II	3		
PHY 1162G* Principles Physics II Lab	1		

Math Courses	Hours	Grade	Semester
MAT 2110G Brief Calculus	3		
BIO 4750* Statistic Anly of Sci Data OR 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		

\*CHM 2440/CHM 2445 (Organic Chemistry I with Lab) and CHM 2840/CHM 2845 (Organic Chemistry II) sequence is recommended for Pre-Health or Graduate Programs.

\*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 & Physiology I	4		
BIO 3300 General Microbiology	4		
BIO 3624 Histology	3		
CHM 2840 Organic Chemistry II	3		
CHM 2845 Organic (Lab) Chemistry II	1		
CHM 3450 Biochemistry	3		

BIO 2210 (4) Anatomy and Physiology I  
BIO 3210 (4) Immunology  
BIO 3300 (4) General Microbiology  
BIO 3312 (3) Horticulture  
BIO 3322 (3) Dendrology  
BIO 3450 (1-3) Independent Study  
BIO 3451 (1-3) Undergraduate Research  
BIO 3610 (3) Survey of Algae & Fungi  
BIO 3612 (3) Plant Evolution & Diversity  
BIO 3620 (4) Funct. Comp. Anatomy  
BIO 3622 (4) Embryology  
BIO 3624 (3) Histology  
BIO 3628 (4) Evolutionary Medicine  
BIO 3690 (4) Clinical Rotation  
BIO 3710 (3) Plant-Animal Interactions  
BIO 3740 (3) Clinical Mycology  
BIO 3810 (3) Freshwater Ecology  
BIO 3850 (3) Environmental Biology  
BIO 3888G (3) Tropical/Marine Ecology  
BIO 3950 (3) Vertebrate Natural History  
BIO 3952 (3) Invertebrate Natural History  
BIO 3960 (1-4) Special Topics

BIO 4400 (1) Teaching in the Lab  
BIO 4751 (3) Adv. Molec. & Cell Biol.  
BIO 4800 (2) Research Techniques  
BIO 4810 (4) Plant Ecology  
BIO 4812 (3) Fisheries Ecology & Mgmt  
BIO 4814 (3) Conservation Biology  
BIO 4816 (3) Biotic Communities  
BIO 4818 (4) Environmental Microbiology  
BIO 4820 (4) Spatial Analysis for Environmental Sciences  
BIO 4830 (3) Comp. Vertebrate Physiology  
BIO 4832 (4) Animal Behavior  
BIO 4833 (4) Neurobiology of Diseases  
BIO 4834 (3) Neurobiology  
BIO 4835 (3) Advanced Neurobiology  
BIO 4836 (4) Pathogenic Microbiology  
BIO 4892 (4) Intro. Paleobotany  
BIO 4914 (3) Plant Anatomy  
BIO 4920 (3) Medicinal Plants  
BIO 4940 (3) Phycology  
BIO 4942 (3) Mycology  
BIO 4944 (3) Lichens

BIO 4946 (3) Bryology  
BIO 4948 (3) Plant Taxonomy  
BIO 4950 (3) Ichthyology  
BIO 4952 (3) Herpetology  
BIO 4954 (3) Ornithology  
BIO 4956 (3) Mammalogy  
BIO 4958 (4) Parasitology  
BIO 4960 (3) Wetland & Aqua. Vasc. Plants  
BIO 4962 (4) Entomology  
BIO 4984 (3) Organic Evolution

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.

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

Admission into medical school is very competitive. Students should maintain a grade point average near or above 3.50/4.00, acquire leadership skills, exposure to healthcare, and score at least a 27 or higher on the Medical College Admission Test (MCAT). Preparation materials from the Association of American Medical Colleges (AAMC) can be found at [www.aamc.org/students/applying/mcat/preparing/](http://www.aamc.org/students/applying/mcat/preparing/). Typically the MCAT is taken during the Spring Semester of the junior year, and an application through a centralized application service American Medical College Application Service (AMCAS) is submitted in June between the junior and senior years. Apply Early! At least three letters of recommendation are required, typically 2 from the sciences and 1 letter of the student's choosing.

Below are the requirements to be considered for medical school admission. As long as the requirements are met, **identifying an undergraduate major is based completely on the student's interests and goals**. Medical schools do not favor any particular major. Most importantly medical schools are seeking individuals who are well rounded in their educational background. Development of a strong vocabulary and communication skills are as important as any particular class. The best way to do this is to READ READ READ.

Additional information from the national associations of allopathic and osteopathic medicine can be found at [www.aamc.org](http://www.aamc.org) or [www.aacom.org](http://www.aacom.org).

## WHAT MAKES YOU UNIQUE FROM OTHER APPLICANTS?

### Healthcare Experience

- Volunteer or work experience in hospitals, clinics, nursing homes, assisted living centers, crisis nursery, and rehab centers is beneficial.
- Shadow a specialist. Ask to volunteer or work in their practice; seek opportunity to shadow.

### Leadership Experience

Physicians are leaders in their communities and demonstrated leadership skills are a must. Campus, church and community organizations provide excellent leadership opportunities.

## RESOURCES:

### Aspiring Docs

[aamc.org/aspiringdocs](http://aamc.org/aspiringdocs)

Aspiring Docs is designed to provide you with information about the basics, how to shadow a doctor, apply to medical school and much more.



/aspiringdocs



@Aspiring-Docs

## SAMPLE COURSE SEQUENCE:

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

FRESHMAN	
FALL	SPRING
ENG 1001G CHM 1310/1315 BIO 1500	ENG 1002G CHM 1410/1415 SOC 1838G BIO 2210
SOPHOMORE	
FALL	SPRING
BIO 3120 CHM 2440/2445 BIO 2220	CHM 2840/2845 PSY 1879G BIO 3200
JUNIOR	
FALL	SPRING
CHEM 3450 PHY 1151G/1152G	PHY 1161/1162 MCAT Exam Exit Interview
SUMMER	
AMCAS Application	

