



# BIO-MEDICINE

## AT EASTERN ILLINOIS UNIVERSITY

NAME	
E NUMBER	
CATALOG	

2025-2026

### GENERAL REQUIREMENTS: 30-38 HRS

#### LANGUAGE#: 9 HRS

Grade of "C" or better is required.

COURSE	HOURS	GRADE	SEMESTER
<b>ENG 1001G</b> Composition & Language	3		
<b>ENG 1002G</b> Composition & Language II	3		
<b>CMN 1310G</b> Intro. to Speech Comm.	3		

#### HUMANITIES/FINE ARTS: 9 HRS

COURSE	HOURS	GRADE	SEMESTER
<b>Humanities</b> _____	3		
<b>Fine Arts</b> _____	3		
<b>Humanities or Fine Arts</b> _____	3		

#### SENIOR SEMINAR: 3 HRS

Senior topic must be outside the major area. See Undergraduate Catalog for Senior Seminars outside of Biological Sciences.

COURSE	HOURS	GRADE	SEMESTER
<b>EIU</b> _____	3		

### \*SCIENCE CORE: 56 HRS

BIOLOGY COURSES	HOURS	GRADE	SEMESTER
<b>BIO 1150</b> Biology Forum	1		
<b>BIO 1500</b> General Biology I	4		
<sup>§</sup> <b>BIO 1550G</b> General Biology II	4		
<b>BIO 3120</b> Molecular & Cell Biology	4		
<b>BIO 3200</b> Genetics	4		
<b>BIO 2220<sup>†</sup></b> Anatomy & Physiology II	4		
<sup>§</sup> <b>BIO 3180</b> Ecology & Evolution	4		
<b>BIO 3300</b> General Microbiology	4		
PHYSICS COURSES	HOURS	GRADE	SEMESTER
<b>PHY 1151G</b> Principles Physics I	3		
<b>PHY 1152G</b> Principles Physics I Lab	1		
<b>PHY 1161</b> Principles Physics II	3		
<b>PHY 1162</b> Principles Physics II Lab	1		

### MAJOR ELECTIVES: 21HRS

21 semester hours 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 14 semester hours must be taken in the Biological Sciences.

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|---|---|
| <b>BIO 2210</b> (4) Anatomy and Physiology I    | <b>BIO 3810</b> (3) Freshwater Ecology                          |
| <b>BIO 3035</b> (3) Economic Botany             | <b>BIO 3850</b> (3) Environmental Biology                       |
| <b>BIO 3210</b> (4) Immunology                  | <b>BIO 3888G</b> (3) Tropical/Marine Ecology                    |
| <b>BIO 3312</b> (3) Horticulture                | <b>BIO 3950</b> (3) Vertebrate Natural History                  |
| <b>BIO 3322</b> (3) Dendrology                  | <b>BIO 3952</b> (3) Invertebrate Natural History                |
| <b>BIO 3330</b> (4) Introduction to Botany      | <b>BIO 3960</b> (1-4) Special Topics                            |
| <b>BIO 3340</b> (4) Zoology                     | <b>BIO 4400</b> (1) Teaching in the Lab                         |
| <b>BIO 3450</b> (1-3) Independent Study         | <b>BIO 4751</b> (3) Adv. Molec. & Cell Biol.                    |
| <b>BIO 3451</b> (1-3) Undergraduate Research    | <b>BIO 4800</b> (2) Research Techniques                         |
| <b>BIO 3460</b> (4) Clinical Rotation           | <b>BIO 4810</b> (4) Plant Ecology                               |
| <b>BIO 3610</b> (3) Survey of Algae & Fungi     | <b>BIO 4812</b> (3) Fisheries Ecology & Mgmt                    |
| <b>BIO 3612</b> (3) Plant Evolution & Diversity | <b>BIO 4814</b> (3) Conservation Biology                        |
| <b>BIO 3620</b> (4) Funct. Comp. Anatomy        | <b>BIO 4816</b> (3) Biotic Communities                          |
| <b>BIO 3622</b> (4) Embryology                  | <b>BIO 4818</b> (4) Environmental Microbiology                  |
| <b>BIO 3624</b> (3) Histology                   | <b>BIO 4820</b> (4) Spatial Analysis for Environmental Sciences |
| <b>BIO 3628</b> (4) Evolutionary Medicine       | <b>BIO 4830</b> (3) Comp. Vertebrate Physiology                 |
| <b>BIO 3710</b> (3) Plant-Animal Interactions   | <b>BIO 4832</b> (4) Animal Behavior                             |
| <b>BIO 3720</b> (4) Entomology                  |   |
| <b>BIO 3740</b> (3) Clinical Mycology           |   |

### SOCIAL/BEHAVIORAL SCIENCE: 9 HRS

Must be from two different disciplines. One course must meet Cultural & Diversity requirement

COURSE	HOURS	GRADE	SEMESTER
<b>PSY 1879G<sup>#</sup></b> Intro to Psychology	3		
<b>SOC 1838G<sup>#</sup></b> Intro to Sociology	3		
	3		

### FOREIGN LANGUAGE: 0-8 HRS

Exempt if 2 yrs in high school with "C" average.

COURSE	HOURS	GRADE	SEMESTER
<b>WL</b> _____ <b>G</b>	4		
<b>WL</b> _____ <b>G</b>	4		

### SCIENCE AWARENESS: 7 HRS

Complete in major.

### MATHEMATICS: 3 HRS

Complete in major.

MATH COURSES	HOURS	GRADE	SEMESTER
<sup>§</sup> <b>MAT 2110G</b> Brief Calculus	3		
<b>BIO 4750</b> Statistic Anly of Sci Data <b>OR MAT 2250G</b> Elementary Statistics	4		
CHEMISTRY COURSES	HOURS	GRADE	SEMESTER
<b>CHM 1310G</b> General Chemistry I	3		
<b>CHM 1315G</b> General Chemistry I Lab	1		
<b>CHM 1410</b> General Chemistry II	3		
<b>CHM 1415</b> General Chemistry II Lab	1		
<b>CHM 2440</b> Organic Chemistry I	3		
<b>CHM 2445</b> 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.

<sup>#</sup>Required by some medical schools

<sup>^</sup>Recommended by some medical schools

& Biological Sciences Major Requirement - Not necessarily required by medical schools

COURSE	HOURS	GRADE	SEMESTER
<b>BIO 2210</b> Anatomy & Physiology	4		
<b>BIO 3210<sup>^</sup></b> Immunology	4		
<b>BIO 3624<sup>^</sup></b> Histology	3		
<b>CHM 2840<sup>#</sup></b> Organic Chemistry II	3		
<b>CHM 2845<sup>#</sup></b> Organic Chemistry II Lab	1		
<b>CHM 3450<sup>#</sup></b> Biochemistry	3		

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| <b>BIO 4833</b> (4) Neurobiology of Diseases | <b>BIO 4952</b> (3) Herpetology                  |
| <b>BIO 4834</b> (4) Neurobiology             | <b>BIO 4954</b> (3) Ornithology                  |
| <b>BIO 4835</b> (4) Advanced Neurobiology    | <b>BIO 4956</b> (3) Mammalogy                    |
| <b>BIO 4836</b> (4) Pathogenic Microbiology  | <b>BIO 4958</b> (4) Parasitology                 |
| <b>BIO 4892</b> (4) Intro. Paleobotany       | <b>BIO 4960</b> (3) Wetland & Aqua. Vasc. Plants |
| <b>BIO 4914</b> (3) Plant Anatomy            | <b>BIO 4984</b> (3) Evolutionary Biology         |
| <b>BIO 4920</b> (3) Medicinal Plants         |  |
| <b>BIO 4940</b> (3) Physiology               |  |
| <b>BIO 4942</b> (3) Mycology                 |  |
| <b>BIO 4944</b> (3) Lichens                  |  |
| <b>BIO 4946</b> (3) Bryology                 |  |
| <b>BIO 4948</b> (3) Plant Taxonomy           |  |
| <b>BIO 4950</b> (3) Ichthyology              |  |

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.

### GRADUATION REQUIREMENTS:

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| <input type="checkbox"/> 120 Hours                               |
| <input type="checkbox"/> 40 SH of upper division courses (3000+) |
| <input type="checkbox"/> 30 SH in residence at EIU               |
| <input type="checkbox"/> 30 SH junior-senior residency           |
| <input type="checkbox"/> 12 SH senior residency                  |
| <input type="checkbox"/> 2.00 Cumulative GPA                     |

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|---|
| <input type="checkbox"/> 2.00 Major GPA   |
| <input type="checkbox"/> Cultural Diversity   |
| <input type="checkbox"/> Application for Graduation (First semester junior year)                            |
| <input type="checkbox"/> Electronic Writing Portfolio 1 <input type="checkbox"/> 2 <input type="checkbox"/> |
| See <a href="http://www.eiu.edu/~assess/">www.eiu.edu/~assess/</a> for requirements                         |

# BIO-MEDICINE

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 competitively 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 science professors and 1 letter from a physician.

Above are the courses required for a B.S. Degree in Biological Sciences and courses typically required or recommended 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.

### RESEARCH EXPERIENCE

Working in a research setting can help make you a competitive medical school applicant and help you to determine if a career in medicine or medical research is right for you.

### LEADERSHIP EXPERIENCE

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

## SUGGESTED 4-YEAR SEQUENCE

YEAR 1 MUST EARN 30+ SH FOR SOPHOMORE STATUS			
FALL		SPRING	
ENG 1001G	3	ENG 1002G	3
BIO 1500	4	BIO 1550G	4
CHM 1310G/1315G	4	CHM 1410/1415	4
BIO 1150	1	<sup>1</sup> Gen Ed Elective	3
<sup>1</sup> Gen Ed Elective	3	<sup>2</sup> MAT Prereq	3
Total	15	Total	17

  

YEAR 2 MUST EARN 60+ SH FOR JUNIOR STATUS			
FALL		SPRING	
BIO 3120	4	BIO 3200	4
CHM 2440/2445	4	CHM 2840/2845	4
MAT 2110G	3	BIO 2210	4
<sup>1</sup> Gen Ed Elective	3	<sup>1</sup> Gen Ed Elective	3
Total	14	Total	15

  

YEAR 3 MUST EARN 90+ SH FOR SENIOR STATUS			
FALL		SPRING	
PHY 1151G/1152G (FA ONLY)	4	PHY 1161/1162 (SP ONLY)	4
BIO 2220	4	BIO 3300	4
BIO 4750 OR MAT 2250G	4	BIO Elective >3000	3
CHM 3450 (FA ONLY)	3	CMN 1310G	3
MCAT Prep		MCAT Exam/Apply to Medical School	
Total	15	Total	14

  

YEAR 4 MUST EARN 120 SH TO GRADUATE			
FALL		SPRING	
EIU 4XXXG	3	BIO 3180	4
BIO Elective >3000	3	BIO Elective >3000	3
<sup>1</sup> Gen Ed Elective	3	<sup>1</sup> Gen Ed Elective	3
<sup>3</sup> Free Elective	3	<sup>3</sup> Free Elective	3
Medical School Admission Interviews		Exit Interview	
Total	12	Total	13

<sup>1</sup> General Education Elective

<sup>2</sup> See Math Placement

<sup>3</sup> Take course that was not previously taken

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

Many courses have prerequisites. See Undergraduate Catalog.

## ALLOPATHIC MEDICINE RESOURCES (M.D.):

**Association of American Medical Colleges** (Allopathic Medicine)  
[students-residents.aamc.org](http://students-residents.aamc.org)



**MSAR** (Allopathic Medical School Admission Requirements)  
[aamc.org/msar](http://aamc.org/msar)

- MSAR Online: subscription to this online database allows you to browse, search, sort, and compare data on U.S. and Canadian Medical schools and PhD/MPH/M.D. programs
- The Official Guide to Medical School Admissions: How to Prepare for and Apply to Medical School From the organization that administers the MCAT® exam and the AMCAS® (American Medical College Application Service) application, this comprehensive guide is the authoritative source of information on medical school admissions and is packed with crucial information, and expert tips, on the admissions process.

## OSTEOPATHIC MEDICINE RESOURCES (D.O.)

**American Association of Colleges of Osteopathic Medicine**  
[AACOM.org](http://AACOM.org)



**Choose DO**  
[choosedo.org](http://choosedo.org)

Learn more about osteopathic medical education with the Choose DO Explorer, a fully searchable database that allows you to explore all of the accredited colleges of osteopathic medicine in the United States. Easily navigate application deadlines, tuition rates, and other important stats with just a few clicks.

**MCAT Preparation through AAMC**  
[mcatofficialprep.org](http://mcatofficialprep.org)

Set up an account to access FREE resources for MCAT prep, create a study plan, access practice questions and more.