



BIO-MEDICINE

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
Humanities	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		

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

* One course must meet Cultural Diversity requirement.

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		

*Additional prerequisite classes may be required. See Undergraduate Catalog
*BIO 2210 (Anatomy and Physiology I) prerequisite. BIO 2210 counts as BIO elective credit.

*Required by some medical schools

*Recommended by some medical schools

Departmental Exit Interview is also required prior to leaving EIU.

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 3210 ^A Immunology	4		
BIO 3300 ^A General Microbiology	4		
BIO 3624 ^A 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 & Aq. 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/. 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 or www.aacom.org.

ALLOPATHIC MEDICINE RESOURCES (M.D.):

Association of American Medical Colleges (Allopathic Medicine)
students-residents.aamc.org

 /AAMCpremed  @AAMCpremed

MSAR (Allopathic Medical School Admission Requirements)
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
- Booth Library: Print edition **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

 /AACOMAS  @AACOMASPreMed

Choose DO 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

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

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.

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, church and community organizations provide excellent leadership opportunities.

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 BIO 1150 PSY 1879G	ENG 1002G BIO 1550G CHM 1410G/1415G SOC 1838G 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 MCAT Prep	BIO 4750 OR MAT 2250G (if not taken in FRESHMAN SPR) PHY 1161/1162 BIO Elective >3000 CMN 1310G MCAT Exam/Apply to Med School
SENIOR	
FALL	SPRING
EIU 4*** BIO Elective >3000 Gen Ed Elective Free Elective Med School Admission Interviews	BIO 3180 BIO Elective >3000 Gen Ed Elective Free Elective Exit Interview