



BIO-MEDICINE

DEPARTMENT OF BIOLOGICAL SCIENCES
AT EASTERN ILLINOIS UNIVERSITY

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| NAME | |
| E NUMBER | |
| CATALOG | |

SP21

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 |
|--------|-------|-------|----------|
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* 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 (Spring ONLY) BIO Elective >3000 CMN 1310G MCAT Exam/Apply to Med School |
| SENIOR | |
| FALL | SPRING |
| EIU 4***G BIO Elective >3000 Gen Ed Elective Free Elective Med School Admission Interviews | BIO 3180 BIO Elective >3000 Gen Ed Elective Free Elective Exit Interview |