

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

2023-2024

GENERAL REQUIREMENTS: 30-38 HRS

LANGUAGE#: 9 HRS

Grade of "C" or better is required.

| COURSE | HOURS | GRADE | SEMESTER |
|-------------------------------------|-------|-------|----------|
| ENG 1001G Composition & Language | 3 | | |
| ENG 1002G Composition & Language II | 3 | | |
| CMN 1310G Intro. to Speech Comm. | 3 | | |

HUMANITIES/FINE ARTS: 9 HRS

| COURSE | HOURS | GRADE | SEMESTER |
|-------------------------|-------|-------|----------|
| Humanities | 3 | | |
| Fine Arts | 3 | | |
| Humanities or Fine Arts | 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 | FIU | 3 | |
|-----------------------------|--------|-------|----------|
| | COURSE | HOURS | SEMESTER |

SOCIAL/BEHAVIORAL SCIENCE: 9 HRS

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

| COURSE | HOURS | GRADE | SEMESTER |
|--------|-------|-------|----------|
| | 3 | | |
| | 3 | | |
| | 3 | | |

FOREIGN LANGUAGE: 0-8 HRS

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

| | COURSE | HOURS | GRADE | SEMESTER |
|----|--------|-------|-------|----------|
| WL | G | 4 | | |
| WL | G | 4 | | |

SCIENCE AWARENESS: 7 HRS

Complete in major.

MATHEMATICS: 3 HRS

Complete in major.

***SCIENCE CORE: 56 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 & Evolution | 4 | | |
| BIO 3300 General Microbiology | 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 | | |
| BIO 4750 Statistic Anly of Sci Data OR MAT 2250G Elementry 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 | | |
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^{*}Additional prerequisite classes may be required. See Undergraduate Catalog

BIO 4942 (3) Mycology

BIO 4944 (3) Lichens

BIO 4946 (3) Bryology

BIO 4950 (3) Ichthyology

BIO 4948 (3) Plant Taxonomy

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.

| BIO BIO BIO BIO BIO BIO BIO BIO BIO BIO | 3035 3210 3312 3322 3330 3340 3450 3451 3610 3612 3622 3624 3628 3710 3720 | (4) Anatomy and Physiology I (3) Economic Botany (4) Immunology (3) Horticulture (3) Dendrology (4) Introduction to Botany (4) Zoology (1-3) Independent Study (1-3) Undergraduate Research (4) Clinical Rotation (3) Survey of Algae & Fungi (3) Plant Evolution & Diversity (4) Funct. Comp. Anatomy (4) Embryology (3) Histology (4) Evolutionary Medicine (3) Plant-Animal Interactions (4) Entomology |
|--|--|--|
| | | |
| ыО | 3/40 | (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 Physi- |
| ology |

BIO 4832 (4) Animal Behavior

| COURSE | HOURS | GRADE | SEMESTER |
|------------------------------------|-------|-------|----------|
| BIO 2210 Anatomy & Physiology | 4 | | |
| BIO 3210# Immunology | 4 | | |
| BIO 3624 [^] Histology | 3 | | |
| CHM 2840# Organic Chemistry II | 3 | | |
| CHM 2845# Organic Chemistry II Lab | 1 | | |
| CHM 3450# Biochemistry | 3 | | |
| NUR 2613# Medical Terminology | 3 | | |

BIO 4833 (4) Neurobiology of Diseases
BIO 4834 (4) Neurobiology
BIO 4835 (4) Advanced Neurobiology
BIO 4836 (4) Pathogenic Microbiology
BIO 4892 (4) Intro. Paleobotany
BIO 4914 (3) Plant Anatomy
BIO 4920 (3) Medicinal Plants
BIO 4984 (3) Evolutionary Biology
BIO 4940 (3) Phycology

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:

| 120 Hours |
|---|
| 40 SH of upper division courses (3000+) |
| 30 SH in residence at EIU |
| 30 SH junior-senior residency |
| 12 SH senior residency |
| 2.00 Cumulative GPA |

| | 2.00 Major GPA | | | |
|--|---|--|--|--|
| | Cultural Diversity | | | |
| | Application for Graduation (First semester junior year) | | | |
| | Electronic Writing Portfolio 1 2 2 | | | |
| | See www.eiu.edu/~assess/ for requirements | | | |

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

[#]Required by some pathologist's assistant schools
^Recommended by some pathologist's assistant schools

[^]Recommended by some pathologist's assistant schools
&Biological Sciences Major Requirement - Not necessarily required by PathA schools

Departmental Exit Interview is also required prior to leaving EIU.

BIO-PATHOLOGIST ASSISTANT

A Pathologists' Assistant (PathA) is a highly trained, certified allied healthcare professional who is qualified by academic and practical training to provide various services in anatomic pathology under the direction and supervision of a licensed, Board Certified or Board Eligible Anatomic Pathologist. Pathologists' Assistants are academically and practically trained to provide accurate and timely processing of a variety of laboratory specimens, including comprehensive macroscopic examination and evaluation of all surgical pathological specimens. Pathologists' Assistants also perform postmortem examinations including prosection, assisting the Pathologist with rendering the provisional anatomic diagnosis, composing the clinical history, recording the macroscopic anatomic findings, and submitting tissue sections for microscopic examination. Pathologists' Assistants play a critical role in the delivery of healthcare services in both surgical pathology and autopsy pathology. They are key partners in assisting the Pathologist to arrive at a pathologic diagnosis, but it is the sole responsibility of the Pathologist to render a diagnosis.

The PathA degree is a Masters level degree. Students must attend and graduate from a NAACLS accredited PathA program and pass the ASCP certification exam. Programs are 22-24 months with the first year consisting of didactic coursework and the second year is a clinical rotation through several affiliated hospitals. The average entrant has competitive scores on the GRE, has a minimum grade point average of 3.00/4.00 and has completed shadowing with a Pathologist's Assistant in a surgical pathology laboratory. Attributes such as demonstrated caring attitude toward others, communication skills, emotional stability under stress and problem solving ability are important selection factors.

There are currently 12 NAACLS accredited PathA programs in the United States and Canada. It is very important when you begin your program to identify which programs you plan to apply and plot out their requirements accordingly.

RESOURCES

American Association of Pathologists' Assistants www.pathassist.org

National Accrediting Agency for Clinical Laboratory Sciences naacls.org

Rosalind Franklin University

www.rosalindfranklin.edu/academics/college-of-health-professions/degree-programs/pathologists-assistant-ms/

University of Toledo

www.utoledo.edu/med/depts/path/PA%20Program.html

SUGGESTED 4-YEAR SEQUENCE

| YEAR 1 MUST EARN 30+ SH FOR SOPHOMORE STATUS | | | | | | | | | |
|--|-----------------------|--|-----------------------|--|--|--|--|--|--|
| FALL | | SPRING | | | | | | | |
| ENG 1001G BIO 1500 CHM 1310G/1315G BIO 1150 ¹ Gen Ed Elective | 3 4 4 1 3 | ENG 1002G BIO 1550G CHM 1410/1415 ¹ Gen Ed Elective ² MAT Prereq | 3 4 4 3 3 | | | | | | |
| Total | 15 | Total | 17 | | | | | | |
| YEAR 2 MUST EARN 60+ SH FOR JUNIOR STATUS | | | | | | | | | |
| FALL | | SPRING | | | | | | | |
| BIO 3120 CHM 2440/2445 | 4 | BIO 3200 CHM 2840/2845 | 4 | | | | | | |

| YEAR : | 3 MUST EARN 90+ | SH F | OR SENIOR STATUS SPRING | |
|------------------------------|---|------------------|---|------------------|
| BIO 222 BIO 475 CHM 34 | 51G/1152G (FA ONLY) 0 0 OR MAT 2250G 50 (FA ONLY) MCAT Prep | 4 4 4 3 | PHY 1161/1162 (SP ONLY) BIO 3300 CMN 1310G BIO Elective >3000 GRE# or MCAT Exam/ Apply to PathA School | 4 4 3 3 |
| | Total | 15 | Total | 14 |

3

3

14

Total

BIO 2210

¹Gen Ed Elective

4

3

15

Total

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

¹ General Education Elective

MAT 2110G

¹Gen Ed Elective

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

Many courses have perequisites. See Undergraduate Catalog.

² See Math Placement

³ Take course that was not previously taken