

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
EIU	3		

#### SOCIAL/BEHAVIORAL SCIENCE: 9 HRS

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

COURSE	HOURS	GRADE	SEMESTER
PHI 2500G Intro to Ethics (suggested)	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 MATHEMATICS: 3 HRS

Complete in major.

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		
<b>BIO 3120</b> * Molecular & Cell Biology	4		
BIO 3200* Genetics	4		
BIO 2220 <sup>+</sup> 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		

<sup>\*</sup>Additional prerequisite classes may be required. See Undergraduate Catalog

#Required by some pathologist's assistant schools
^Recommended by some pathologist's assistant schools
Departmental Exit Interview is also required prior to leaving EIU.

# **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 2210 (4) Anatomy and Physiology I BIO 3035 (3) Economic Botany BIO 3210 (4) Immunology BIO 3312 (3) Horticulture BIO 3322 (3) Dendrology BIO 3330 (4) Introduction to Botany BIO 3340 (4) Zoology BIO 3450 (1-3) Independent Study BIO 3451 (1-3) Undergraduate Research BIO 3460 (4) Clinical Rotation BIO 3610 (3) Survey of Algae & Fungi BIO 3612 (3) Plant Evolution & Diversity BIO 3620 (4) Funct. Comp. Anatomy	1
BIO 3720 (4) Entomology 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 Physi-
ology
BIO 4832 (4) Animal Behavior

BIO 4944 (3) Lichens

BIO 4946 (3) Bryology

BIO 4950 (3) Ichthyology

BIO 4948 (3) Plant Taxonomy

COURSE	HOURS	GRADE	SEMESTER
BIO 2210 Anatomy & Physiology	4		
BIO 3210 <sup>a</sup> Immunology	4		
BIO 3624 <sup>^</sup> 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 4952 (3) Herpetology
BIO 4834 (4) Neurobiology	<b>BIO 4954</b> (3) Ornithology
BIO 4835 (4) Advanced Neurobiology	<b>BIO 4956</b> (3) Mammalogy
BIO 4836 (4) Pathogenic Microbiology	BIO 4958 (4) Parasitology
BIO 4892 (4) Intro. Paleobotany	BIO 4960 (3) Wetland & Aqua. Vasc.
BIO 4914 (3) Plant Anatomy	Plants
BIO 4920 (3) Medicinal Plants	BIO 4984 (3) Evolutionary Biology
<b>BIO 4940</b> (3) Phycology	
<b>BIO 4942</b> (3) Mycology	Courses numbered 5000-5499 inclusi

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		

<sup>+</sup>BIO 2210 (Anatomy and Physiology I) prerequisite. BIO 2210 counts as BIO elective credit.

# **BIO-PATHOLOGIST ASSISTANT**

A Pathologists' Assistant 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

Eastern Virginia Medical School

www.evms.edu

Loma Linda University

medicine.llu.edu/education/pathologists-assistant-program

University of Calgary

cumming.ucalgary.ca/gse/programs/pathologists-assistant

University of Toledo

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

University of Western Ontario

www.schulich.uwo.ca/pathol/gps/mclsc\_pathologists\_assistant/index. html

University of Maryland

www.medschool.umaryland.edu/pathology/Pathologists-Assistant-Program/

Wayne State University

cphs.wayne.edu/pathologists-assistant/

Rosalind Franklin University

www.rosalindfranklin.edu/Default.aspx

### SUGGESTED 4-YEAR SEQUENCE

YEAR 1 MUST EARN 30+ SH FOR SOPHOMORE STATUS FALL SPRING				
ENG 1001G BIO 1500 CHM 1310G/1315G BIO 1150 <sup>1</sup> Gen Ed Elective	3 4 4 1 3	ENG 1002G BIO 1550G CHM 1410/1415 <sup>1</sup> Gen Ed Elective <sup>2</sup> MAT Prereq	3 4 4 3 3	
Total	15	Total	17	
YEAR 2 MUST EARN 60+ SH FOR JUNIOR STATUS				

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FALL		SPRING		
BIO 3120 CHM 2440/2445 MAT 2110G <sup>1</sup> Gen Ed Elective	4 4 3 3	BIO 3200 CHM 2840/2845 BIO 2210 <sup>1</sup> Gen Ed Elective	4 4 4 3	
Total	14	Total	15	

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

YEAR 4 MUST EARN 120 SH TO GRADUATE				
FALL		SPRING		
EIU 4XXXG BIO Elective >3000 ¹Gen Ed Elective ³Free Elective Path A 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	

<sup>&</sup>lt;sup>1</sup> General Education Elective

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

#### **Duke University**

pathology.duke.edu/academic-programs/pathologists-assistantprogram

**Drexel University** 

www.drexelmed.edu/

West Virginia University medicine.hsc.wvu.edu/pa/

Quinnipiac University

www.quinnipiac.edu/

<sup>&</sup>lt;sup>2</sup> See Math Placement

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