

Pre-Biomedical Laboratory Diagnostics, A.S.

Degree Offered

- Associate of Science

Nature of the Program

The associate's program in pre-biomedical laboratory diagnostics fulfills the first two years of undergraduate study required for admittance to the bachelor's program in biomedical laboratory diagnostics offered by the West Virginia University School of Medicine. Courses in the program provide all the general education, biology, chemistry, and math courses required for admission and provide the foundations required for success in the bachelor program. Students accepted into the program complete an additional two years of courses in biomedical laboratory diagnostics and receive a Bachelor's degree. Once admitted into the bachelor program, students can choose to emphasis to become a clinical laboratory scientist or histotechnologist.

Career Opportunities

Clinical laboratory scientists analyze, develop and perform medical laboratory tests and evaluate results on blood and bodily fluids. Histotechnologists are responsible for routine and specialized procedures on tissue and autopsy specimens for diagnosis. Both can find employment in labs in hospitals, doctor's offices or private lab facilities.

In addition, students can apply to medical school, dental school or other graduate programs upon completion of the bachelors program and completion of any additional prerequisite courses required.

FACULTY

CHAIR

- Erin Cunningham - M.S. Biology
Year @ PSC 2007

ADVISOR

- Candace Lawrence - M.A. Mathematics
Year @ PSC 2017

General Education Foundations

Please use this link to view a list of courses that meet each GEF requirement. (<http://registrar.wvu.edu/gef/>)

NOTE: Some major requirements will fulfill specific GEF requirements. Please see the curriculum requirements listed below for details on which GEFs you will need to select.

Code	Title	Hours
General Education Foundations		
F1 - Composition & Rhetoric		3-6
ENGL 101 & ENGL 102 or ENGL 103	Introduction to Composition and Rhetoric and Composition, Rhetoric, and Research Accelerated Academic Writing	
F2A/F2B - Science & Technology		4-6
F3 - Math & Quantitative Reasoning		3-4
F4 - Society & Connections		3
F5 - Human Inquiry & the Past		3
F6 - The Arts & Creativity		3
F7 - Global Studies & Diversity		3
F8 - Focus (may be satisfied by completion of a minor, double major, or dual degree)		9
Total Hours		31-37

Please note that not all of the GEF courses are offered at all campuses. Students should consult with their advisor or academic department regarding the GEF course offerings available at their campus.

Curriculum Requirements

Code	Title	Hours
GEF Elective Requirements (4, 5, 6, and 7)		12
ENGL 101 & ENGL 102	Introduction to Composition and Rhetoric and Composition, Rhetoric, and Research (GEF 1)	6
MATH 124	Algebra with Applications (or higher - GEF 3)	3
STAT 211	Elementary Statistical Inference	3
BIOL 101 & 101L	General Biology 1 and General Biology 1 Laboratory (GEF 8)	4
BIOL 102 & 102L	General Biology 2 and General Biology 2 Laboratory (GEF 8)	4
CHEM 115 & 115L	Fundamentals of Chemistry 1 and Fundamentals of Chemistry 1 Laboratory (GEF 2)	4
CHEM 116 & 116L	Fundamentals of Chemistry 2 and Fundamentals of Chemistry 2 Laboratory (GEF 8)	4
Select one of the following sequences:		4-8
CHEM 231 & 231L	Organic Chemistry: Brief Course and Organic Chemistry: Brief Course Laboratory	
CHEM 233 & 233L & CHEM 234 & CHEM 234L	Organic Chemistry 1 and Organic Chemistry 1 Laboratory and Organic Chemistry 2 and Organic Chemistry 2 Laboratory	
PSIO 241	Elementary Physiology	4
PALM 200	Medical Terminology	3
WVUE 191	First Year Seminar	1
Electives (hours may vary depending on which Chemistry courses are taken)		4-8
Total Hours		60

Suggested Plan of Study

First Year

Fall	Hours	Spring	Hours
MATH 124 (GEF 3)		3 ENGL 101 (GEF 1)	3
BIOL 101 & 101L (GEF 8)		4 BIOL 102 & 102L (GEF 8)	4
CHEM 115 & 115L (GEF 2)		4 CHEM 116 & 116L (GEF 8)	4
GEF 5		3 GEF 4	3
WVUE 191		1 Select one of the following: HLSC 270 Elective	1
		15	15

Second Year

Fall	Hours	Spring	Hours
ENGL 102 (GEF 1)		3 CHEM 234 & 234L	4
CHEM 233 & 233L		4 PSIO 241	4
STAT 211		3 PALM 200	3
GEF 6		3 GEF 7	3
Elective		3	
		16	14

Total credit hours: 60

Major Learning Outcomes

PRE-BIOMEDICAL LABORATORY DIAGNOSTICS

Upon completion of the associates in pre-biomedical laboratory diagnostics program, students will be able to:

1. Describe general biological concepts including cell structure and function, physiology and genetics.
2. Use mathematical concepts to solve problems.
3. Use chemical principles and laboratory techniques to describe and analyze the chemical structure and reactivity of organic molecules.
4. Apply for admission into the biomedical laboratory diagnostics program at WVU School of Medicine or equivalent program.