

BIOLOGY, PRE-PHARMACY (LECOM) (2+3)

The Lake Erie College of Osteopathic Medicine (LECOM) School of Pharmacy and Slippery Rock University (SRU) are committed to the training of future pharmacy practitioners. Slippery Rock University and LECOM School of Pharmacy offer an accelerated, five-year Doctor of Pharmacy program. Under this joint agreement students will successfully complete the two-year undergraduate program in pre-pharmacy at SRU and then matriculate into LECOM School of Pharmacy to complete the professional curriculum of the Doctor of Pharmacy degree (Pharm.D) in three years. The accelerated professional pharmacy curriculum at LECOM School of Pharmacy is offered in a 12-month program per academic year. Students participating in this program will not be awarded a Slippery Rock University degree.

For more information on admission requirements: <https://lecom.edu/admissions/entrance-requirements/early-acceptance-programs/>

Program Learning Outcomes

- **Competence in Laboratory and Research Skills:** To conduct, assess, and communicate research investigations using established scientific practices.
- **Core Concepts for Biological Literacy:**
 - Knowledge/Content:
 - Evolution
 - Structure and function across all levels of biological organization
 - Diversity and interactions of life
 - Information flow, exchange and storage in biological systems
 - Critical Thinking/Problem Solving:
 - Connect information from cognate science courses and liberal arts courses to biological concepts
 - Apply scientific information to current and future societal problems
- **Participation in Diverse, Enriching Scientific Activities:** Apply technical and professional skills in hands-on laboratory, clinical or field experiences.
- **Professional Attitude:** Graduates demonstrate professional attitude, behavior, and ability to interact with people from diverse backgrounds and cultures.

Related Links

Biology - LECOM Pre-Pharmacy, BS Program Page ([https://www.sru.edu/academics/majors-and-minors/biology-pre-pharmacy-23-\(lecom/\)](https://www.sru.edu/academics/majors-and-minors/biology-pre-pharmacy-23-(lecom/)))

Professional Licensure/Certification Page (<https://www.sru.edu/students/student-consumer-information/professional-licensures/>)

Curriculum Guide

GPA Requirement

Overall GPA: 3.4 or higher
Science GPA: 3.4 or higher
Math GPA: 3.4 or higher

Summary

Code	Title	Hours
	Other Basic Requirements	0-3
	Major Requirements/Concentration	69
	Natural Science and Math College-Wide Requirements	12
	Electives	51

Basic Math Requirement

Check with your adviser or a current degree audit report to see if you have been exempted from this course. The credit earned in this course will not be counted toward the 120 credit hour minimum needed to earn a degree.

Code	Title	Hours
	Complete one of the following:	0-3
	Meet required minimum SAT or ACT math score OR	
ESAP 110	Beginning Algebra	

Total Hours 0-3

DIVERSITY, EQUITY, AND INCLUSION REQUIREMENT

Students must take and pass a course with the Diversity, Equity, and Inclusion (DEI) designation prior to graduation. Students can meet this requirement by taking any DEI - designated course in any program at any time during their undergraduate career.

Biology Program Requirements

- Students desiring a Biology Major must maintain at least a 2.000 average in Biology.
- Students must earn a "C" or better in both Biology I with Lab (BIOL 113) and Biology II with Lab (BIOL 114) before proceeding to their next biology course.
- To view the SRU policy on senior undergraduate students earning graduate credit, click here (<https://catalog.sru.edu/academic-policies/senior-undergraduate-students-earning-graduate-credit/>).

LECOM - Pre-Pharmacy Requirements

Code	Title	Hours
Required Courses		
BIOL 113	Biology I: Foundations of Ecology, Evolution and Diversity with Lab	4
BIOL 114	Biology II: Foundations of Molecules, Genes and Cells with Lab	4
BIOL 250	Genetics with Lab	4
BIOL 325	Biostatistics and Experimental Design with Lab	3
CHEM 107	General Chemistry I	3
CHEM 111	General Chemistry I Lab	1
CHEM 108	General Chemistry II	3
CHEM 112	General Chemistry II Lab	1
CHEM 201	Organic Chemistry I	3
CHEM 211	Organic Chemistry Laboratory I	1
CHEM 202	Organic Chemistry II	3
CHEM 212	Organic Chemistry Laboratory II	1
COMM 200	Civil Discourse: Theory & Practice	3
CPSC 110	Computer Concepts	3
ENGL 102	Critical Writing	3
ENGL 205	Introduction to Professional Writing	3

MATH 225	Calculus I	4
PHYS 216	University Physics 1 with Lab	4
Subtotal		51
Economics Course		
ECON elective		3
Subtotal		3
Psychology Course		
PSYC elective		3
Subtotal		3
Psychology or Sociology Course		
Select one of the following:		3
PSYC elective		
INDP 201	Principles of Sociology	
Subtotal		3
General Electives		
Select nine credits		9
Subtotal		9
Total Hours		69

Natural Science and Math College-Wide Requirements

Code	Title	Hours
Students must take the following four courses:		
CHEM 107	General Chemistry I	3
CHEM 111	General Chemistry I Lab	1
MATH 225	Calculus I	4
PHYS 216	University Physics 1 with Lab	4
Total Hours		12

Important Curriculum Guide Notes

This Curriculum Guide is provided to help SRU students and prospective students better understand their intended major curriculum. Enrolled SRU students should note that the My Rock Audit may place already-earned and/or in progress courses in different, yet valid, curriculum categories. Enrolled SRU students should use the My Rock Audit Report and materials and information provided by their faculty advisers to ensure accurate progress towards degree completion. *The information on this guide is current as of the date listed. Students are responsible for curriculum requirements at the time of enrollment at the University.*

PASSHE - Pennsylvania State System of Higher Education Institutions

DEPARTMENT OF BIOLOGY (61LP)

PRE PHARMACY (LECOM) PROGRAM

This program is effective as of Summer 2022

Revised 04.20.2022

UCC 02.01.2022

RECOMMENDED two-YEAR PLAN

Course	Title	Hours
First Year		
Fall		
BIOL 113	Biology I: Foundations of Ecology, Evolution and Diversity with Lab	4

CHEM 107 & CHEM 111	General Chemistry I and General Chemistry I Lab	4
ENGL 102	Critical Writing	3
MATH 225	Calculus I	4
ESAP 101	FYRST Seminar *	1
Hours		16

Spring

BIOL 114	Biology II: Foundations of Molecules, Genes and Cells with Lab	4
CHEM 108 & CHEM 112	General Chemistry II and General Chemistry II Lab	4
ENGL 205	Introduction to Professional Writing	3
CPSC 110	Computer Concepts	3
Elective		3
Hours		17

Second Year

Fall

Select one of the following:		3
COMM 200	Civil Discourse: Theory & Practice	
PHIL 110	Ethics and Civil Discourse	
POLS 235	Civil Discourse and Democracy	

BIOL 250	Genetics with Lab	4
CHEM 201 & CHEM 211	Organic Chemistry I and Organic Chemistry Laboratory I	4
PHYS 201	Elements of Physics I with Lab	4
Elective		3
Hours		18

Spring

Economics Elective		3
CHEM 202 & CHEM 212	Organic Chemistry II and Organic Chemistry Laboratory II	4
Psychology Elective		3
Behavioral Science Elective		3
BIOL 325	Biostatistics and Experimental Design with Lab	3
Hours		16
Total Hours**		67

¹ Work with your Academic Adviser to declare a Thematic Thread by the end of your fall semester in your second year.

* Students are encouraged to take ESAP 101 as a Free Elective.

** This document is meant to serve as a guide. Some planners may show more than 120 credits because faculty have created flexibility in choosing courses. However, only 120 credits are required to obtain a degree. Please consult with your academic adviser and refer to your curriculum guide prior to registering for courses. This plan should be reviewed, and verified, by you and your academic adviser at least once each academic year.

Major Code: 61LP

Revised date: 04.21.22