

Biology: Pharmacy (Joint LECOM***) 3+4 Track

Recommended Graduation Plan (Fall 2025)

The recommended graduation plan is designed to provide a blueprint for students to complete their degrees on time. These plans are the recommended sequences of courses. Students must meet with their Academic Advisor to develop a more individualized plan to complete their degree.

NOTE: This recommended Graduation Plan is applicable to students admitted into the major during the 2025-2026 academic year.

CRWT Placement
CRWT 101 to CRWT 102
CRWT 101S to CRWT 102S

Math Placement
MATH 021/022 to MATH 024 to MATH 110-121

NOTE: CRWT and MATH courses are determined by placement testing and should be taken following the sequence above.

First Year					
Fall Semester	HRS	✓	Spring Semester	HRS	✓
Gen Ed: INTD 101-First Year Seminar	4		BIOL 113 & BIOL 113L -Fundamentals of Biology II Lecture & Lab	4+1	
CHEM 116 & CHEM 116L-General Chemistry I Lecture & Lab	4+1		CHEM 117 & CHEM 117L -General Chemistry II Lecture & Lab	4+1	
BIOL 111 & BIOL 111L-Fundamentals of Biology I Lecture & Lab	4+1		Gen Ed Quantitative Reasoning - MATH 121-Calculus I or MATH 110-Precalculus	4	
Gen Ed: CRWT 102-Critical Reading & Writing II [^]	4		General Education Requirement	4	
			Career Pathways: PATH TS1 – Career Pathways Module 1	Degree Rqmt.	
Total:	18		Total:	18	

Second Year					
Fall Semester	HRS	✓	Spring Semester	HRS	✓
CHEM 211 & CHEM 211L-Organic Chemistry I Lecture & Lab [^]	4+1		BIOL 332 & BIOL 332L-Genetics Lecture & Lab * (WI)	4+1.5	
BIOL 311 & BIOL 311L -Microbiology Lecture & Lab	4+1.5		CHEM 213 & CHEM 213L Organic Chemistry Lecture and Lab	4+1	
ECON 101 or 102 – Economics [^]	4		ENSC 345-Research Design and Statistics [^] or PSYC 242 Statistics [^]	4	
General Education Requirement	4		General Education Requirement	4	
Career Pathways: PATH TS2 – Career Pathways Module 2	Degree Rqmt.		Career Pathways: PATH TS3 – Career Pathways Module 3	Degree Rqmt.	
Total:	18.5		Total:	18.5	

Third Year					
Fall Semester	HRS	✓	Spring Semester	HRS	✓
PHYS 111 & PHYS 118 L-Fundamentals of Physics I Lecture & Lab	4+1		PHYS 113 & PHYS 119L-Fundamentals of Physics II Lecture and Lab*	4+1	
BIOL 407 & BIOL 407L -Cell and Molecular Biology Lecture and Lab* (WI)	4+1.5		BIOL 356-Evolution (WI)	4	
BIOL 221-General Ecology	4		General Education Requirement	4	
General Education Requirement	4		General Education Requirement	4	

Total:	18.5	Total:	17
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Fourth Year
Lake Erie College of Medicine (Pharmacy)

Total Credits Required: 128

Science Classes GPA: 3.2

General Education courses can be done in any order with the exception of INTD 101, CRWT and MATH. Those three general education courses will need to be done first. First Year Seminar is taken in the first semester. Failure to complete CRWT and MATH will result in a hold when the student hits 64 credits. The following general education courses can be done in any order. For more info on these courses, please visit the [General Education program requirements website in the College Catalog](#):

- Social Science Inquiry (SOSC 110) [+W]
- Scientific Reasoning
- Historical Perspectives [+W]
- Studies in the Arts & Humanities (*CRWT 102 is a prerequisite to this course*) [+W]
- Global Awareness [+W]
- Distribution Category (Social Systems & Society **OR** Culture & Creativity **OR** Values and Ethics) (**Must be outside of TAS**)
- Distribution Category

+W: Students transferring in with 48 or more credits are waived from these general education requirements.

***This course has a pre-requisite. Please refer to the course catalog for information about pre-requisites.**

***Pre-requisite for Biology elective is at least a “C” grade in BIOL111 and BIOL113.**

****Admissions Early Acceptance Program**

*****Lake Erie College of Medicine**

^A**This course requires a CLM test for placement purposes.**

^B**If needed.**

^C**If Pre-Calculus is taken then a summer course would be needed between the First and Second year**

WI: Writing Intensive-3 required in the major

[^]**No grade lower than C accepted**