

CLINICAL LABORATORY SCIENCE PRE-PROFESSIONAL 4+1 TRACK (B.S.)

Student Learning Outcomes

1. Students will demonstrate knowledge of discipline- specific content related to macro- principles describing the 3 domains of biology and the molecular nature of life.
2. Students will use critical thinking by demonstrating the ability to recognize the components of a problem, formulate a strategy to solve the problem, apply comprehensive scientific knowledge to execute a solution and then evaluate the effectiveness of the solution.
3. Students will demonstrate communication skills reflective of professional standards consistent biology-related associations (i.e.FASEB).
4. Students will demonstrate discipline- specific core laboratory and calculation- based skills related to the characterization and classification of life forms, their components and habitats and in the molecular analysis of living species.
5. Students will demonstrate readiness for post-baccalaureate entry into a workforce or acceptance into graduate or professional programs in Biology and/or health professions.
6. Students will demonstrate global perspective in their understanding of how biological factors affect economics, health, technology and the environment.

BIO/CHEM 390	Biology Internship ((No internship required if admitted to CLS Internship)	1-3
	Biology/Chemistry elective(s) 300-level or higher	1-4
Chemistry		16
CHEM 101	T1: Principles of Chemistry I	3
CHEM 101L	Principles of Chemistry I: Lab	1
CHEM 102	Principles of Chemistry II	3
CHEM 102L	Principles of Chemistry II:Lab	1
CHEM 201	Organic Chemistry I	3
CHEM 201L	Organic Chemistry I: Lab	1
CHEM 202	Organic Chemistry II	3
CHEM 202L	Organic Chemistry II: Lab	1
Mathematics		5-6
MATH 155	Elementary Functions I	3
	or MATH 156Elementary Functions II	
MATH 207	Calculus I	5
MATH 221	Statistics ((required))	3
Philosophy		3
PHIL 304	H3:Bioethics	3
Physics		8
PHYS 101	Principles of Physics I	3
PHYS 101L	Principles of Physics I: Lab	1
PHYS 102	Principles of Physics II	3
PHYS 102L	Principles of Physics II: Lab	1
Total Hours		65-66

Student also must fulfill requirements of hospital-based program. See Division Chair for program details.

Recommended

- Global Learning Experience

Required

- General Education Requirements
- Internship

Code	Title	Hours
Biology		12
BIO 101	T1:Principles of Biology I	3
BIO 101L	Principles of Biology I: Lab	1
BIO 102	Principles of Biology II	3
BIO 102L	Principles of Biology II: Lab	1
BIO 200	Medical Terminology	1
BIO 206	Microbiology	3
BIO 206L	Microbiology: Lab	1
BIO 209	Anatomy/Physiology I	3
BIO 209L	Anatomy/Physiology I: Lab	1
BIO 210	Anatomy/Physiology II	3
BIO 210L	Anatomy/Physiology II: Lab	1
BIO/CHEM Electives:		12
11 BIO credit hours of 300-level or higher + internship (minimum of 1 hour); 2 credits maximum of BIO/CHEM 411/412; BIO/CHEM 390 counts		
BIO 304	Immunology	3-4
BIO/CHEM 307	Essential Biochemistry	3-4
BIO 402	DV:Genetics	3-4