

Pre-Professional Concentration

This program leads to a B.S. degree and is designed for the student who wishes to pursue a career as a health-related professional.

Below is a suggested schedule of courses. This information is provided as a guide and does not supersede information provided by advisors or the Undergraduate Catalog. Each student will develop a specific course schedule in consultation with their departmental advisor. For details of all the University, College and Departmental requirements for graduation, students should consult the Catalog.

69 hours is required (not including Foundational Studies requirements). (F, S and Sum indicate that this course is usually offered in Fall, Spring and Summer semesters.)

Freshman Year:

CHEM 105 (General Chem I; 3 hr; F, S and Sum)
CHEM 105L (General Chem I Lab; 1 hr; F, S and Sum)
CHEM 106 (General Chem II; 3 hr; S and Sum)
CHEM 106L (General Chem II Lab; 1 hr; S and Sum)
BIO 101 (Principles of Biology I; 3 hr; F and Sum)
BIO 101L (Principles of Biology I Lab; 1 hr; F and Sum)
BIO 102 (Principles of Biology II; 3 hr; S)
BIO 102L (Principles of Biology II Lab; 1 hr; S)
MATH131 (Calculus I; 4 hr; F, S and Sum)
MATH 132 (Calculus II; 4 hr; F, S, and Sum)

Sophomore Year:

CHEM 321 (Analytical Chem I; 3 hr; S)
CHEM 321L (Analytical Chem I Lab; 1 hr; S)
CHEM 351 (Organic Chem I; 3 hr; F and Sum)
CHEM 351L (Organic Chem I Lab; 1 hr; F and Sum)
CHEM 352 (Organic Chem II; 3 hr; S and Sum)
CHEM 352L (Organic Chem II Lab; 1 hr; S and Sum)
PHYS 115 (University Phys I; 4 hr; F,)
PHYS 115L (University Phys I Lab; 1 hr; F)
PHYS 116 (University Phys II; 4 hr; S)
PHYS 116L (University Phys II Lab; 1 hr; S)

Junior Year:

CHEM 341 (Inorganic Chemistry; 3 hr; S)
CHEM 431 (Biochemistry I, 3 hr; F)
CHEM 431L (Biochemistry I Lab; 1 hr; F)
CHEM 432 (Biochemistry II; 3 hr; S)
CHEM 461 (Physical Chem I; 4 hr; F)
CHEM 461L (Physical Chem I Lab; 1 hr; F)

Senior Year:

CHEM 405 (Senior Seminar in Chemistry; 1 hr; F)

Advanced Electives (7 hr required): Choose approved advanced courses in chemistry or related areas (e.g., mathematics, physics, or biology); consult the Catalog or MySAM for specific approved courses. CHEM 495 (Internship in Chemistry) or 499 (Introduction to Research) can be taken for variable credit, but a maximum of 4 credits may be counted. CHEM 330 and 399 cannot be used as advanced electives.

Pre-Professional Concentration Curriculum

The degree courses are in boldface. The plan below is only a suggested sequence, but courses must be taken with observance of prerequisites. Other courses may be shifted in this curriculum as necessary. Prerequisites are indicated in brackets.

	Fall		Spring	
Freshman	CHEM 105 [see catalog for	3	CHEM 106 [CHEM 105/105L]	3
	CHEM 105L math recommend.]	1	CHEM 106L	1
	BIO 101	3	BIO 102 [CHEM 105]	3
	BIO 101L	1	BIO 102L	1
	MATH 131* [Maple score of 21 or MATH 112 and 115]	4	MATH 132 [MATH 131]	4
	English course*	3	COMM 101	3
	15		15	
Sophomore	CHEM 351 [CHEM 105/L]	3	CHEM 352 [CHEM 351]	3
	CHEM 351L	1	CHEM 352L [CHEM 351L]	1
	PHYS 115 [MATH 131]	4	CHEM 321 [CHEM 106/L]	3
	PHYS 115L	1	CHEM 321L	1
	Found. Stud. courses (2)	6	PHYS 116 [PHYS 115, MATH 132]	4
		15	PHYS 116L	1
		Found. Stud. course	3	
			16	
Junior	CHEM 461 [CHEM 106/L; MATH 132; PHYS 106/L or 116/L]	4	CHEM 341 [CHEM 352]	3
	CHEM 461L	1	CHEM 432 [CHEM 431]	3
	CHEM 431 [CHEM 352]	3	Found. Stud. courses (3)	9
	CHEM 431L [CHEM 352]	1		
	ENG 305T	3		
	Found. Stud. course	3		
		15		15
Senior	CHEM 405	1	Advanced elective**	3
	Advanced elective**	4	Found. Stud. course	3
	Found. Stud. courses (3)	9	General electives*	9
		14		15

[Prerequisite]

[Pre- or Co-requisite]

* Specific requirements are determined by proficiencies met upon entering. You may need to start with a lower-level math course before MATH 131 (Calculus I), but calculus should be started in your first semester if you place into it. You may need to add a basic skills course. You may need one semester of English (107) or two (101 & 105). You may or may not need to take language courses as part of the Foundational Studies curriculum. Additional courses reduce the number of “general elective” courses later in the curriculum. One Foundational Studies UDIE course may be replaced by completion of a minor, second major, or certificate. Completion of the Honors Program may reduce the number of Foundational Studies courses required. Completion of 120 total credits is a University requirement.

** A total of 7 credits approved advanced electives is required.