

BIOLOGY - PRE-BIOMEDICAL PROFESSIONS EMPHASIS REQUIREMENTS (BA/BS)

Code	Title	Units
Major Requirements ¹		
BIOLOGY 141	INTRODUCTORY BIOLOGY I	5
BIOLOGY 142	INTRODUCTORY BIOLOGY II	5
BIOLOGY 190	BIOLOGY FORUM	1
BIOLOGY 251	INTRODUCTION TO GENETICS	4
BIOLOGY 253	INTRODUCTION TO CELL BIOLOGY	3
BIOLOGY 254	BIOTECHNOLOGY LABORATORY METHODS I	2
BIOLOGY 257	INTRODUCTION TO ECOLOGY	3
BIOLOGY 311	MICROBIOLOGY	3-4
or BIOLOGY 363	MOLECULAR BIOLOGY	
CHEM 454	BIOCHEMISTRY OF MACROMOLECULES	3
or BIOLOGY 456	BIOCHEMISTRY OF METABOLISM AND SIGNALING	
Select one of the following:		8
BIOLOGY 340 & BIOLOGY 345	COMPARATIVE VERTEBRATE ANATOMY and ANIMAL PHYSIOLOGY	
BIOLOGY 361 & BIOLOGY 362	HUMAN ANATOMY AND PHYSIOLOGY I and HUMAN ANATOMY AND PHYSIOLOGY II	
Select one of the following:		10
PHYSICS 140 & PHYSICS 141	PRINCIPLES OF PHYSICS I and PRINCIPLES OF PHYSICS II	
PHYSICS 180 & PHYSICS 181	PHYSICS FOR SCIENTISTS AND ENGINEERS I and PHYSICS FOR SCIENTISTS AND ENGINEERS II	
Select 0-6 units combined from the following:		0-6
BIOLOGY 493	INTERNSHIP IN BIOLOGY	
BIOLOGY 498	INDEPENDENT STUDY	
BIOLOGY 498R	INDEPENDENT STUDY - UNDERGRADUATE RESEARCH	
BIOLOGY 491	TRAVEL STUDY (department approval required)	
Select additional units of Biology electives numbered 300 or above except for BIOLOGY 303, BIOLOGY 493, BIOLOGY 498, or BIOLOGY 498R, to total 54 units		
Total Units		54

Code	Title	Units
Unique and Writing Requirements		
BIOLOGY 303	BIOSTATISTICS	3-4
or PSYCH 215	BASIC STATISTICAL METHODS	
CHEM 102	GENERAL CHEMISTRY I	5
CHEM 104	GENERAL CHEMISTRY II	5
CHEM 251	ORGANIC CHEMISTRY - I	3
Select one of the following:		4-7
MATH 142 & MATH 151	COLLEGE ALGEBRA and TRIGONOMETRY	

MATH 152	PRECALCULUS	
MATH 243	CALCULUS FOR BUSINESS AND SOCIAL SCIENCES	
MATH 250	APPLIED CALCULUS SURVEY FOR BUSINESS AND SOCIAL SCIENCES	
MATH 253	CALCULUS AND ANALYTIC GEOMETRY I	
Select one of the following:		3
BIOLOGY 200	WRITING IN BIOLOGY	
or PWP 371	WRITING IN THE SCIENCES	
Select one of the following:		2-5
CHEM 252	ORGANIC CHEMISTRY - II	
CHEM 261	ORGANIC CHEMISTRY LABORATORY	
CHEM 352	QUANTITATIVE ANALYSIS	
CHEM 458	ADVANCED BIOCHEMISTRY LABORATORY	
Total Units:		25-32

¹ No minor required.