

**BACHELOR OF SCIENCE OR ARTS IN BIOLOGY  
WITH A CELL & MOLECULAR EMPHASIS  
STARTING FALL 2019**



**IMPORTANT INFORMATION TO REMEMBER**

Use this sheet and the Master List of Biology Courses with your Degree Audit to schedule your courses in a logical and functional sequence. **YOU** are responsible for ensuring that **ALL** requirements are met for the major **AND** that you have fulfilled **ALL** university requirements. Pay special attention when repeating courses and class time conflicts.

Students must complete a minimum of 40 upper division hours (3000+)

Students must complete a minimum of 72 Science hours

Students must complete a minimum of 36 Biology credit hours

Students must complete 21 Biology residency hours that must be taken at the U

**REQUIRED SCIENCE CORE COURSES**

COURSE	TITLE	CREDITS	SEMESTER
MATH 1170 OR MATH 1210	CALCULUS FOR BIOLOGISTS I OR CALCULUS I	4	
MATH 1180 OR MATH 1220	STATISTICS WITH CALCULUS FOR BIOLOGISTS OR CALCULUS II	4	
CHEM 1210	GENERAL CHEMISTRY I	4	
CHEM 1215	GENERAL CHEMISTRY LAB I	1	
CHEM 1220	GENERAL CHEMISTRY II	4	
CHEM 1225	GENERAL CHEMISTRY LAB II	1	
CHEM 2310	ORGANIC CHEMISTRY I	4	
PHYS 2010	GENERAL PHYSICS I	4	
PHYS 2020	GENERAL PHYSICS II	4	

**REQUIRED FUNDAMENTAL BIOLOGY COURSES**

COURSE	TITLE	CREDITS	SEMESTER
BIOL 1610	FUNDAMENTAL PRINCIPLES OF BIOLOGY I	4	
BIOL 1615	FUNDAMENTAL PRINCIPLES OF BIOLOGY LAB I	1	
BIOL 1620	FUNDAMENTAL PRINCIPLES OF BIOLOGY II	4	
BIOL 1625	FUNDAMENTAL PRINCIPLES OF BIOLOGY LAB II	1	

**EMPHASIS CORE COURSES**

COURSE	TITLE	CREDITS	SEMESTER
BIOL 2020 OR BIOL 2021	PRINCIPLES OF CELL BIOLOGY OR PRINCIPLES OF CELL SCIENCE (HONORS)	3 OR 4	
BIOL 2030	PRINCIPLES OF GENETICS	3	
BIOL 3510	BIOLOGICAL CHEMISTRY I	3	

**COMPLETE 1 EMPHASIS SPECIFIC COURSE**

**COURSES CANNOT DOUBLE COUNT IN EITHER SECTION**

COURSE	TITLE	CREDITS	SEMESTER
BIOL 3370	MICROBIAL BIOLOGY	3	
BIOL 3410	ECOLOGY & EVOLUTION	3	
BIOL 3520	BIOLOGICAL CHEMISTRY II	3	
BIOL 5120	GENE EXPRESSION	3	
BIOL 5210	CELL STRUCTURE AND FUNCTION	3	

**COMPLETE 2 EMPHASIS ELECTIVE COURSES**

**COURSES CANNOT DOUBLE COUNT IN EITHER SECTION**

**1 MUST BE A 5000-LEVEL COURSE**

COURSE	TITLE	CREDITS	SEMESTER
BIOL 3210	GENERAL & PATHOGENIC MICROBIOLOGY	3	
BIOL 3230	DEVELOPMENTAL BIOLOGY	3	
BIOL 3240	INTRO TO CELLULAR NEUROBIOLOGY	3	
BIOL 3370	MICROBIAL BIOLOGY	3	
BIOL 3410	ECOLOGY & EVOLUTION	3	
BIOL 3520	BIOLOGICAL CHEMISTRY II	3	
BIOL 3550	PHYSICAL PRINCIPLES IN BIOLOGY	3	
BIOL 5030 OR PATH 5030	BASIC IMMUNOLOGY	3	
BIOL 5120	GENE EXPRESSION	3	
BIOL 5140	GENOME BIOLOGY	3	
BIOL 5210	CELL STRUCTURE AND FUNCTION	3	
BIOL 5510	GENES, DEVELOPMENT, AND EVOLUTION	3	
CHEM 5810	NANOSCIENCE	3	

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**COMPLETE 1 EMPHASIS ELECTIVE COURSE**

COURSE	TITLE	CREDITS	SEMESTER
BIOL 3515	BIOLOGICAL CHEMISTRY LAB	3 [L1]	
BIOL 3525	MOLECULAR BIOLOGY OF A DNA LAB	3 [L2]	
BIOL 5255	PROKARYOTIC GENETICS	3 [L2]	

**COMPLETE 2 5000-LEVEL BIOLOGY COURSES**

COURSE	TITLE	CREDITS	SEMESTER
BIOL 5 _____			
BIOL 5 _____			

**COMPLETE AT LEAST 2 ADDITIONAL BIOLOGY LAB COURSES  
TOTTALLING 3 LAB UNITS**

COURSE	TITLE	LAB UNITS	SEMESTER

**OTHER BIOLOGY COURSES NEEDED FOR THE REQUIRED 36 BIOLOGY HOURS  
OR REQUIRED 72 SCIENCE HOURS**

COURSE	TITLE	CREDITS	SEMESTER

NOTES