

**BACHELOR OF SCIENCE OR ARTS IN BIOLOGY
WITH A CELL & MOLECULAR EMPHASIS
STARTING FALL 2024**

IMPORTANT INFORMATION TO REMEMBER:

Students **MUST** complete a minimum of 40 Upper Division Hours (3000+ level courses)
 Students **MUST** complete a minimum of 42 Biology credit hours
 Students **MUST** complete a minimum 16 Upper Division Biology Hours (3000+ level courses)
 Students **MUST** complete 21 Biology Residency Hours that **MUST** be taken at the U

SCIENCE CORE

COURSE	TITLE	CREDITS	SEMESTER
MATH 1170 OR MATH 1210	CALCULUS FOR BIOLOGIST I OR CALCULUS I	4	
MATH 1180 OR MATH 1220	STATS W/CALCULUS FOR BIOLOGIST II OR CALCULUS II	4	
CHEM 1210	GEN CHEMISTRY I	4	
CHEM 1215	GEN CHEMISTRY LAB I	1	
CHEM 1220	GEN CHEMISTRY II	4	
CHEM 1225	GEN CHEMISTRY LAB II	1	
CHEM 2310	ORGANIC CHEMISTRY I	4	
PHYS 2010	GENERAL PHYSICS I	4	
PHYS 2020	GENERAL PHYSICS II	4	

BIOLOGY CORE

COURSE	TITLE	CREDITS	SEMESTER
BIOL 1610	FUND. OF BIOLOGY I	4	
BIOL 1615	FUND. OF BIOLOGY LAB I	1	
BIOL 1620	FUND. OF BIOLOGY II	4	
BIOL 1625	FUND. OF BIOLOGY LAB II	1	
BIOL 2020 OR BIOL 2021	PRINC. OF CELL BIOLOGY OR PRINC. OF CELL SCIENCE (HONORS)	3 OR 4	
BIOL 2030	GENETICS	3	
BIOL 3410	ECOLOGY & EVOLUTION	3	
BIOL 3510	BIOLOGICAL CHEMISTRY	3	

**EMPHASIS REQUIRED COURSES
COMPLETE 3 EMPHASIS ELECTIVES**

COURSE	TITLE	CREDITS	SEMESTER
BIOL 3150	GENOMICS & BIOINFORMATICS	3 [L1]	

BIOL 3210	GENERAL & PATHOGENIC MICROBIOLOGY	3	
BIOL 3240	INTRO TO CELLULAR NEUROBIOLOGY	3	
BIOL 3370	MICROBIAL BIOLOGY	3	
BIOL 3520	BIOLOGICAL CHEMISTRY II	3	
BIOL 3550 OR BIOL 3551	PHYSICAL PRINCIPLES IN BIOLOGY	3	
BIOL 5120	GENE EXPRESSION	3	
BIOL 5210	CELL STRUCTURE AND FUNCTION	3	
BIOL 5510	GENES, DEVELOPMENT & EVOLUTION	3	

COMPLETE 1 REQUIRED EMPHASIS LAB

COURSE	TITLE	CREDITS	SEMESTER
BIOL 3205	GENERAL MICROBIOLOGY LAB	1 [L1]	
BIOL 3125	MOL TOOLS FOR EVO & POPULATION BIOLOGY	3 [L2]	
BIOL 3515	BIOLOGICAL CHEMISTRY LAB	3 [L1]	
BIOL 3525	MOLECULAR BIOLOGY OF DNA LAB	3 [L2]	
BIOL 5255	PROKARYOTIC GENETICS	4 [L2]	
BIOL 5275	MICROBIAL DIVERSITY, GENOMICS & EVOLUTION	4 [L1]	
CHEM 5750	ADVANCED CHEMICAL BIOLOGY LAB	2 [L1]	

**COMPLETE 2 5000-LEVEL BIOLOGY COURSES
NEEDS TO BE AT LEAST 2 CREDIT HOURS**

COURSE	TITLE	CREDITS	SEMESTER

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

COURSE	TITLE	LAB UNITS	SEMESTER

**OTHER BIOLOGY COURSES NEEDED FOR THE
REQUIRED 42 BIOLOGY HOURS**

COURSE	TITLE	CREDITS	SEMESTER