

**BACHELOR OF SCIENCE OR ARTS IN BIOLOGY  
WITH A GENETICS & GENOMICS EMPHASIS  
STARTING FALL 2023**

**IMPORTANT INFORMATION TO REMEMBER:**

Students **MUST** complete a minimum of 40 Upper Division Hours (3000+ level courses)

Students **MUST** complete a minimum of 36 Biology credit hours

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	

**GENETICS & GENOMICS EMPHASIS CORE**

COURSE	TITLE	CREDITS	SEMESTER
BIOL 3410	ECOLOGY & EVOLUTION	3	
BIOL 3510	BIOLOGICAL CHEMISTRY I	3	

**GENETICS & GENOMICS EMPHASIS ELECTIVES**

**COMPLETE 2 EMPHASIS ELECTIVE**

**COURSES CANNOT DOUBLE COUNT IN EITHER SECTION**

COURSE	TITLE	CREDITS	SEMESTER
BIOL 3150	GENOMICS & BIOINFORMATICS	3 [L1]	
BIOL 5120	GENE EXPRESSION	3	
BIOL 5140	GENOME BIOLOGY	3	
BIOL 5510	GENES, DEVELOPMENT, & ECOLOGY	3	
BIOL 5920	ADVANCED EUKARYOTIC GENETICS	3	

**GENETICS & GENOMICS EMPHASIS ELECTIVES**

**COMPLETE 2 EMPHASIS ELECTIVE**

**COURSES CANNOT DOUBLE COUNT IN EITHER SECTION**

COURSE	TITLE	CREDITS	SEMESTER
BIOL 3125	MOL TOOLS FOR EVOL & POP BIOLOGY	3 [L2]	
BIOL 3150	GENOMICS & BIOINFORMATICS	3 [L1]	
BIOL 3205	GENERAL MICROBIOLOGY LAB	1 [L1]	
BIOL 3210	GENERAL & PATHOGENIC MICROBIOLOGY	3	
BIOL 3230	DEVELOPMENTAL BIOLOGY	3	
BIOL 3520	BIOLOGICAL CHEMISTRY II	3	
BIOL 3525	MOLECULAR BIOLOGY OF DNA LAB	3 [L2]	
BIOL 5140	GENOME BIOLOGY	3	
BIOL 5210	CELL STRUCTURE & FUNCTION	3	
BIOL 5221	HUMAN EVOLUTIONARY GENETICS	4 [L1]	

BIOL 5275	MICROBIAL DIVERSITY, GENOMICS & EVOLUTION	4 [L2]	
BIOL 5510	GENES, DEVELOPMENT, & ECOLOGY	3	
BIOL 5910	MATHEMATICAL MODELS IN BIOLOGY	3	

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

COURSE	TITLE	CREDITS	SEMESTER

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

COURSE	TITLE	LAB UNITS	SEMESTER

**OTHER BIOLOGY COURSES NEEDED FOR THE  
REQUIRED 36 BIOLOGY HOURS**

COURSE	TITLE	CREDITS	SEMESTER