

**BACHELOR OF SCIENCE OR ARTS IN BIOLOGY
WITH A CELL & MOLECULAR EMPHASIS
PRIOR TO 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 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	

CELL & MOLECULAR EMPHASIS CORE

COURSE	TITLE	CREDITS	SEMESTER
BIOL 3510	BIOLOGICAL CHEMISTRY I	3	

CELL & MOLECULAR EMPHASIS ELECTIVES

COMPLETE 1 EMPHASIS ELECTIVE

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 & FUNCTION	3	

CELL & MOLECULAR EMPHASIS ELECTIVES

COMPLETE 1 EMPHASIS ELECTIVE

COURSES CANNOT DOUBLE COUNT IN EITHER SECTION

COURSE	TITLE	CREDITS	SEMESTER
BIOL 5120	GENE EXPRESSION	3	
BIOL 5140	GENOME BIOLOGY	3	
BIOL 5210	CELL STRUCTURE & FUNCTION	3	
BIOL 5510	GENES, DEVELOPMENT, & EVOLUTION	3	
CHEM 5810	NANOSCIENCE	3	

CELL & MOLECULAR EMPHASIS ELECTIVES

COMPLETE 1 EMPHASIS ELECTIVE

COURSES CANNOT DOUBLE COUNT IN EITHER SECTION

COURSE	TITLE	CREDITS	SEMESTER
BIOL 3210	GENERAL & PATHOGENIC MICROBIOLOGY	3	
BIOL 3230	DEVELOPMENTAL BIOLOGY	3	
BIOL 3240	INTRO TO CELLULAR BIOLOGY	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 5120	GENE EXPRESSION	3	
BIOL 5140	GENOME BIOLOGY	3	
BIOL 5210	CELL STRUCTION & FUNCTION	3	
BIOL 5510	GENES, DEVELOPMENT, & EVOLUTION	3	
CHEM 5810	NANOSCIENCE	3	

CELL & MOLECULAR EMPHASIS ELECTIVES

COMPLETE 1 EMPHASIS ELECTIVE

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	4 [L2]	

**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

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