

BIOLOGY (BA) MAJOR

NATURAL SCIENCES DEPARTMENT

MAJOR CHECKLIST FALL 2020 – SUMMER 2021

This checklist aids in placement of students into their major coursework and documents the department evaluation of transferred credit and course waivers, based on coursework listed on the Degree Audit Report (DARs). A student must complete General Education and Liberal Studies (GELS) along with other graduation requirements for graduation – refer to your DARs. All coursework for the major must be completed with the grade of C- or better.

Student Name	Metro State ID #	Admission Date or Semester
Advisor Name	Evaluation Date	Declaration Date or Semester

MATH & PRE-MAJOR FOUNDATION COURSES: 16 CREDITS

Each foundation science course must include at least one semester credit of professionally supervised, on-ground laboratory experience with standard undergraduate laboratory equipment and materials. Note that Math foundation courses are pre-requisites that do not count toward major credit totals.

Course #	Title	Transfer Equivalent Details	Grade	Credits	Term
MATH115, OR, MATH 120 OR Placement	College Algebra OR Precalculus				
BIOL 111	General Biology I				
BIOL 112	General Biology II				
CHEM 111	General Chemistry I				
CHEM 112	General Chemistry II				

LOWER-DIVISION CORE REQUIREMENTS FOR MAJOR: 12 CREDITS

Course #	Title	Transfer Equivalent Details	Grade	Credits	Term
PHYS 110, OR, PHYS 211 and 212	Introduction to Physics, OR, Calculus Based Physics I and II			4 or 10	
BIOL 211	Principles of Genetics			4	

Course #	Title	Transfer Equivalent Details	Grade	Credits	Term
MATH 208 OR STAT 201	Applied Calculus OR Statistics I			4	

UPPER-DIVISION BIOLOGY CORE COURSES: 15 CREDITS

Select one course with lab in each of the three core categories.

CELL AND MOLECULAR COURSE OPTIONS - SELECT ONE

Course #	Title	Transfer Equivalent Details	Grade	Credits	Term
BIOL 302	Cell Biology and Histology			5	
BIOL 304	Molecular Biology			5	
BIOL 307	Biochemistry			5	

ECOLOGY AND EVOLUTIONARY COURSE OPTIONS - SELECT ONE

Course #	Title	Transfer Equivalent Details	Grade	Credits	Term
BIOL 310	Ecology			5	
BIOL 312	Evolution			5	
BIOL 316	Behavioral Ecology			5	
ESCI 315	Limnology			5	

PHYSIOLOGY AND ORGANISMAL COURSE OPTIONS - SELECT ONE

Course #	Title	Transfer Equivalent Details	Grade	Credits	Term
BIOL 311	Plant Physiology			5	
BIOL 322	Comparative Animal Physiology			5	
BIOL 324	Invertebrate Biology			5	
BIOL 330	Biology of Microorganisms			5	

CAPSTONE AND ELECTIVE COURSE REQUIREMENT: 14 CREDITS

An additional 14 credits of upper-division biology courses chosen from the list of core courses above, the list of elective courses below, and other approved 300- or 400-level biology courses (see advisor for details). Research and internship cannot exceed five credits toward the elective requirement.

300-LEVEL ELECTIVE OPTIONS

This upper division elective category includes the core courses listed above and the following courses.

Course #	Title	Grade	Credit	Term	Transfer Equivalent Details
ESCI 320	Ecosystem and Global Ecology				
BIOL 350I	Internship in Biology				

400 AND 500-LEVEL ELECTIVE OPTIONS

A minimum of three credits is required in this upper division elective category.

Course #	Title	Grade	Credits	Term	Course #	Title	Grade	Credits	Term
BIOL 406	Biology of Cancer		3		BIOL 489	Senior Research in Biology		1-4	
BIOL 415	Pollution Ecology		3		BIOL 490H	Honors Research Project		1-4	
BIOL 416	Invasion Biology		3		BIOL 511H	Honors Freshwater Ecology and Quality		3	
BIOL 418	GIS for Natural Sciences		3		BIOL 512H	Honors Insect Ecology and Management		3	
BIOL 422	Neurophysiology		3		BIOL 513H	Honors Wetland Ecology		3	
BIOL 426	Comparative Biomechanics		3		BIOL 514H	Honors Forest Ecology		3	
BIOL 469	Seminars in Biology		1		CHEM 421	Medicinal Chemistry		3	
BIOL 471	Science Journal Discussion		1-2						
BIOL 479	Advance Topics in Biology		1-5						

Subject to advisor approval, up to 4 credits of BIOL 221 or BIOL 225 or another 200-level biology course may be used to fulfill this elective category.

200-level Course #	Title	Transfer Equivalent Details	Grade	Credits	✓

ADDITIONAL NOTES, CREDIT TOTALS OR COMMENTS:

Academic advisor notes:

GRADUATION REQUIREMENTS

Below is a summary of residency and graduation requirements for this major and used as an advising tool as you work toward completion. Students are advised to reference their DARs for official graduation requirements.

Major Requirements Checklist	In Progress	Completed
57 Major credits		
25 Metro State Major Credits		
25 Upper Division Major (300 or higher)		

University Requirements Checklist	In Progress	Completed
120 Total Credits (minimum)		
30 Metro State Credits		
40 Upper Division (300 or higher)		
48 credits GELS +RIGR	See DARs for details	

NATURAL SCIENCES DEPARTMENT CONTACT INFORMATION

For specific questions about this major program or equivalencies of prior coursework at other institutions, contact the Chair of the Natural Sciences Department at:

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