

PROGRAM NAME: BIOLOGY MOLECULAR TRACK

PROGRAM COLLEGE: ARTS AND SCIENCES

CATALOG TERM: 2019-20

Program description:

The two tracks within the biology major serve a student population that is diverse in its academic and career objectives by providing the opportunity to focus on cell and molecular biology or organismal and ecological biology. We also seek to provide students interested in other areas the opportunity to supplement their existing knowledge base with an understanding of human and environmental biology.

Elective courses can be taken in areas of student interest. Many Biology majors choose secondary majors or minors. NOTE: Individual Programs of Study will vary in consultation with your Advisor and course/section availability each term. The below schedule serves only as an **example** four year degree plan.

YEAR 1

Fall Semester

Course Name	Credits	Minimum Grade Required	Experience Notes
Core: Written Communication	3		<ul style="list-style-type: none"> Join an RU Academy Participate in the Finucane Service Project Attend the New Student Retreat
Core: Mathematics MT1170 Mathematics in the Modern World, MT1190 Pre-Calculus, or MT1800 Calculus I	3-4		
BL1250/1251: General Biology I and Lab Scientific Causal Mode Lv 1	4	C	
CH2610/2610: General Chemistry I and Lab	4	C	
NS1000: Freshmen in Science Seminar	1		
TOTAL HOURS	15-16		

Spring Semester

Course Name	Credits	Minimum Grade Required	Notes
Core: Scientific-Relational Mode Lv I	3		<ul style="list-style-type: none"> Consider joining Tri-Beta, the Biology Honors Society
Core: Written Communication If EN1140 is taken, this requirement is met.	3		
BL1300/1301: General Biology II and Lab	4	C	
CH2630/2640: General Chemistry II and Lab	4	C	
Elective Course	3		
TOTAL HOURS	17		

YEAR 2

Fall Semester

Course Name	Credits	Minimum Grade Required	Notes
Core: Artistic Mode	3		<ul style="list-style-type: none"> Sophomores typically take CH2710/20 Organic Chemistry I and Lab along with PH2700/10 Physics for the Life Sciences I and Lab. Consider undergraduate research with a Biology faculty member.
Core: Historical Mode Lv 1	3		
BL2000: Introduction to Research	3		
Biology Elective Course: BL3100/01: Microbiology and Lab OR BL3030/3031: Human Anatomy and Physiology I and Lab	4	C	
Elective Course	3		
TOTAL HOURS	16		

Spring Semester

Course Name	Credits	Minimum Grade Required	Notes
Core: Literary Mode Lv I	3		<ul style="list-style-type: none"> Sophomores typically take CH2730/40 Organic Chemistry II and Lab along with PH2700/60 Physics for the Life Sciences II and Lab.
Core: Philosophy Mode Lv I	3		
BL3610/11: Genetics and Lab	4	C	
Core: Historical Mode or Literary Mode Lv II	3		
Biology Elective Course: Microbiology and Lab OR BL3040/41: Human Anatomy and Physiology II and Lab	4	C	
TOTAL HOURS	17		

YEAR 3

Fall Semester

Course Name	Credits	Minimum Grade Required	Notes
Core: Theological Mode Lv II	3		<ul style="list-style-type: none"> Juniors typically take CH 3310 Biochemistry I
Core: Oral Communication	3		
BL4200 Parasitology Core: Global Perspectives	3	C	
BL4800: Evolution Core: Scientific-Causal or Relational Mode Lv II	3	C	
Elective Courses	6		
TOTAL HOURS	15		

Spring Semester

Course Name	Credits	Minimum Grade Required	Notes
Core: Scientific-Relational Mode Lv II	3		
Theological Mode Lv II	3		
BL3620/3621: Cell Biology and Lab OR BL3650/51: Molecular Biology and Lab	4	C	
Elective Courses	6		
TOTAL HOURS	16		

YEAR 4

Fall Semester

Course Name	Credits	Minimum Grade Required	Notes
Biology 2 Molecular Courses: BL4500/01: Advanced Genetics and Lab BL4600/01: Biotechnology and Lab BL4700/01: Immunology and Lab	8	C	
Biology Organismal Course: BL3700/3701 General Physiology and Lab (even fall semesters) OR BL3500/3501: Plant Biology and Lab (odd fall semesters)	4	C	
Core: Philosophical Mode Lv II	3		
Elective Course	3		
TOTAL HOURS	18		

Spring Semester

Course Name	Credits	Minimum Grade Required	Notes
Core: Philosophical Mode or Theological Mode Lv II	3		
BL4940: Biology Capstone	1	C	
Biology Systems Course: BL3230 Animal Behavior OR BL3900 Field Biology	3	C	
Elective Courses	6		
TOTAL HOURS	16		

Credit Hours

- Core Curriculum: (52-56)
- Major: (47—does not include majors courses that are included in the core curriculum)
- Electives: (27)

TOTAL Credit Hours: 126-130