

Grand Valley State University
CLAS Academic Advising Center
C-1-140 Mackinac Hall
616-331-8585

Teaching Endorsement Planned Program
Biology Major – Secondary Education
(Fall 2016 and After)

Student Name:

Date:

Email Address:

G#:

Transfer Institution(s):

Key: ✓ - Completed or In Progress W - Waived Highlighted - Still Needs to be Completed

Biology Major – Required Courses

Course Number	✓	Course Name	Credits	Completed	Scheduled	Grade	Quality Points
BIO 120		General Biology I	4				
BIO 121		General Biology II	4				
BIO 210		Evolutionary Biology	3				
BIO 215		Ecology	4				
BIO 375		Genetics	3				
BIO 376		Genetics Laboratory	1				
CMB 405		Cell and Molecular Biology	4				
BIO 495		Perspectives in Biology	3				
		Biology Elective – Plant Organismal Biology (choose one)					
BIO 243		Plant Identification and Natural History	3				
BIO 303		Plant Morphology	4				
BIO 313		Plants and Islands	4				
BIO 323		Aquatic and Wetlands Plants	3				
BIO 333		Systematic Botany	4				
BIO 403		Plant Structure and Function	4				
BIO 413		Freshwater Algae	3				
BIO 423		Plant Biotechnology	3				
BIO 433		Plant Ecology	4				
		Biology Elective – Animal Organismal Biology (choose one)					
BIO 222		Natural History of Vertebrates	3				
BIO 232		Natural History of Invertebrates	3				
BIO 272		Insect Biology and Diversity	3				
BIO 302		Comparative Vertebrate Anatomy	4				
BIO 342		Ornithology	3				
BIO 362		Fisheries Biology	4				
BIO 402		Aquatic Insects	3				
BIO 412		Mammalogy	4				
BIO 422		Embryology	3				
BIO 432		Comparative Animal Physiology	4				
BMS 208 & 309		Human Anatomy & Laboratory in Human Anatomy	3/1				
BMS 290 & 291		Human Physiology & Laboratory in Human Physiology	3/1				

		Biology Electives					
		Students must complete a minimum of 41 credits of Biology coursework. This includes the Biology core listed previously. Students should select additional courses from the following electives, or from additional plant or animal courses listed previously, or BIO Issues courses, credits in research (BIO 499), or internship credit (BIO 490). Students should consult with a Biology advisor prior to selecting elective courses. Students are allowed to use a maximum of 8 BMS credits towards the Biology electives.					
BIO 308*		Wildlife Ecology	4				
BIO 317		Principles of Animal Nutrition	3				
BIO 319		Global Agricultural Sustainability	3				
BIO 325		Human Sexuality	3				
BIO 328		Biomedical Ethics	3				
BIO 329		Evolution of Social Behavior	3				
BIO 338		Environmental Ethics	3				
BIO 349		The Darwinian Revolution	3				
BIO 352		Animal Behavior	3				
BIO 357		Environmental Microbiology	4				
BIO 370		Marine Biology	3				
BIO 386*		Ecological Restoration & Management	4				
BIO 408*		Wildlife Management	4				
BIO 416		Advanced Genetics Laboratory	2				
BIO 440		Limnology	4				
BIO 442		Fish Ecology	3				
BIO 450		Stream Ecology	4				
BIO 452		Human Evolution	3				
BIO 460		Terrestrial Ecosystem Ecology	4				
BIO 470		Conservation Biology	3				
BIO 473		Ecology and Evolution of Plant-Animal Interactions	3				
BIO 485		Molecular Ecology	3				
BIO 486		Advanced Restoration Ecology	3				
BMS 212 & 213		Introductory Microbiology & Laboratory in Microbiology	3/1				
CMB 351		Bioinformatics: Tools and Techniques for Life Scientists	3				
CMB 411		Genetics of Development and Cancer	3				
CMB 414		Molecular Biology of the Gene	3				
CMB 426		Nucleic Acids Laboratory	3				
CHM 115		Principles of Chemistry I	4				
CHM 116		Principles of Chemistry II	5				
CHM 231 ²		Introduction to Organic Chemistry OR	4				
CHM 241		Organic Chemistry for Life Sciences I	5				
CHM 232 ²		Biological Chemistry OR	4				
CHM 242		Organic Chemistry for Life Sciences II	4				
STA 215		Introductory Applied Statistics OR	3				
MTH 125		Survey of Calculus OR	3				
MTH 201		Calculus I	4				
PHY 200 ³		Physics for the Life Sciences OR	4				
PHY 220		General Physics I OR	5				
PHY 230		Principles of Physics I	5				

Cumulative GPA: _____

Special Considerations:

*These courses may be cross-listed as NRM

¹ BIO 104, 105, 107, 109, 205, 309, 310, 311, 329 and 349 are excluded from the major.

² If CHM 231 is chosen, CHM 232 must be taken. If CHM 241 is chosen, CHM 242 must be taken

³ Secondary Education students considering the Integrated Science Secondary Endorsement are encouraged to take both PHY 220 & 221 or PHY 230 & 231.

⁴ Students with a bachelor's degree and a biology major from another institution must earn at least 5 credits in Biology from GVSU.

⁵ **Students must complete a minimum of 41 credits of Biology coursework**

⁶ BIO 407 - Biology and Society: Study Abroad, BIO 417 - International Field Biology, OR BIO 418 - Regional Field Biology possible with Biology Department permission

Notes:

Substitutions, Equivalencies, and Waivers Approved By:

Date:

Prepared By:

Date:

Academic Departmental Approval (Pending Completion of Highlighted Requirements):

Date: