Biology (2010-2011)

Secondary Teacher Certification

This is a **general curriculum** guide and is not applicable to every student and is not a replacement for meeting with your advisor.

-Student is starting in MTH 110-

Fall Semester – Year One	credits	Winter Semester- Year One		credits
BIO 120: General Biology I (Gen Ed)	4	BIO 121: General Biology II		4
Gen Ed.	3	CHM 115: Principles of Chemistry I (<i>Gen Ed</i>)		5
MTH 110: Algebra	4	MTH 122: College Algebra (Gen Ed)		3
WRT 150: Strategies in Writing	4	Gen Ed.		3
Total	15		Total	15
Fall Semester – Year Two	credits	Winter Semester – Year Two		credits
BIO 215: General Ecology	4	BIO 375/376: Genetics/Genetics Lab		4
CHM 116: Principles of Chemistry II	5	BIO elective		3
PSY 101: Introduction to Psychology (Gen Ed)	3	ED 315: Diverse Perspectives on Ed.* (Gen Ed)		3
MTH 123: Trigonometry	3	PSY 301: Child Development*		3
		MTH Cognate ¹		3
Total	15		Total	16
Spring Semester – Year Two	credits	Summer Semester – Year Two		credits
Minor Elective	3	Minor Elective		3
Gen Ed.	3	Gen Ed.		3
Total	6		Total	6
Fall Semester – Year Three	credits	Winter Semester – Year Three		credits
CHM 231: Introductory Organic Chemistry <u>Or²</u>	4	CHM 232: Biological Chemistry <u>Or²</u>		4
CHM 241: Organic Chemistry for Life Science I	ce I 4 CHM 242: Organic Chemistry for Life Science II		4	
PHY 220: General Physics I	5	PHY 221: General Physics II		5
ED 337: Intro to Learning and Assessment*	3	WRT 305: Writing in the Disciplines ³		3
Minor Elective	3	Minor Elective		3
Total	15		Total	15-16
Spring Semester – Year Three	credits	Summer Semester – Year Three		credits
Gen Ed. or Theme	3	Gen Ed.		3
Minor Elective	3	Minor Elective		3
Total	6		Total	6
Fall Semester – Year Four	credits	Winter Semester – Year Four		credits
BIO 405/406: Cell and Molecular Biology w/lab	6	BIO 495:Evolutionary Biology		3
BIO elective ⁴	4	BIO elective ⁴		4
Gen Ed. or Theme	3	BIO elective		3
Minor Elective	3	Gen Ed. or Theme		3
		Minor Elective		3
Total	16		Total	16
Fall Semester – Year Five	credits	Winter Semester – Year Five		credits
ED 331: Methods and Strategies for Secondary Teaching	5	ED 431: Student Teaching, Secondary		10
ED 310: Organizing and Managing Classroom Environments	3	ED 485: The Context of Educational Issues		3
ED 321: Content Area Literacy	3			
ED 370: Technology in Education**	3			
ED 379: Universal Design for Learning: Secondary**	3			
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Notes:

Special Notes

- A. This is a general curriculum guide and will not work for everyone, especially those students who have AP or CLEP credit.
- B. Courses that have (Gen Ed) written after them are classes that are required in the major and also fulfill a section of the general education program.
- C. Remember to fulfill your 2 SWS requirements; 1 can be taken in the gen ed. program and 1 in your major.
- D. Some classes are in multiple sections within the gen ed. If you take a course that can be counted in two categories, you can open up 1-2 more spots for biology electives.
- E. You must have 120 credits to graduate from Grand Valley State University.

^{*} These courses are prerequisites to the College of Education. Student must have a minimum GPA of 2.7 in these classes, and both their major and minor. Classes must be completed prior to applying to the College of Education. A student selecting secondary education <u>must also have a teachable minor</u>. **Consult with your advisor!**

^{**} ED 370 and/or ED 379 may be taken during or after Assisting but must be taken before Student Teaching.

¹ One course must be selected from MTH 125: Survey of Calculus, MTH 201: Calculus and Analytical Geometry, or STA 215: Introductory Applied Statistics.

² If you plan to attend graduate or professional school, you will want to complete the CHM 241/242 sequence.

³ Students who pass out of WRT 305 have room to take a Gen Ed., Theme, or elective course in this semester.

⁴One biology elective must be taken from an animal biology course and one from a plant biology course.