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.

-Assumes that the MTH 110 requirement has been fulfilled-

Fall Semester – Year One	credits	Winter Semester- Year One	credits
BIO 120: General Biology I (Gen Ed)	4	BIO 121: General Biology II	4
CHM 115: Principles of Chemistry I (Gen Ed)	5	CHM 116: Principles of Chemistry II	5
MTH 122: College Algebra (Gen Ed)	3	WRT 150: Strategies in Writing	4
Gen Ed.	3	Gen Ed.	3
Total	15	Total	16
Fall Semester – Year Two	credits	Winter Semester – Year Two	credits
BIO 215: General Ecology	4	BIO 375/376: Genetics/Genetics Lab	4
MTH 123: Trigonometry	3	CHM 232: Biological Chemistry <u>Or²</u>	4
CHM 231: Introductory Organic Chemistry <u>Or²</u>	4	CHM 242: Organic Chemistry for Life Science II	4
CHM 241: Organic Chemistry for Life Science I	4	MTH Cognate ¹	3
PSY 101: Introduction to Psychology (Gen Ed)	3	ED 315: Diverse Perspectives on Education (Gen Ed.)*	3
Total	14	Total	14
Spring Semester – Year Two	credits	Summer Semester – Year Two	credits
Minor Elective	3	Minor Elective	3
Minor Elective	3		
Total	6	Total	3
Fall Semester – Year Three	credits	Winter Semester - Year Three	credits
BIO 405/406: Cell and Molecular Biology w/lab	6	PHY 221: General Physics II	5
PHY 220: General Physics I	5	WRT 305: Writing in the Disciplines ³	4
ED 337: Introduction to Learning and Assessment*	3	Gen Ed.	3
PSY 301: Child Development*	3	Gen Ed.	3
Total	17	Total	15
Spring Semester – Year Three	credits	Summer Semester – Year Three	credits
Gen Ed.	3	Minor Elective	3
Minor Elective	3	Minor Elective	3
Total	6	Total	6
Fall Semester – Year Four	credits	Winter Semester – Year Four	credits
BIO elective ⁴	4	BIO 495:Evolutionary Biology	3
BIO elective	3	BIO elective ⁴	3
Gen Ed. or Theme	3	BIO elective	3
Gen Ed. or Theme	3	Gen Ed. or Theme	3
Minor Elective	3	Minor Elective	3
Total	16	Total	15
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		
Total	17	Total	13

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.

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.