

# Biology (2010-2011)

## Aquatic Sciences

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 ( <i>Gen Ed</i> )	4	BIO 121: General Biology II	4
CHM 115: Principles of Chemistry I ( <i>Gen Ed</i> )	5	CHM 116: Principles of Chemistry II	5
MTH 122: College Algebra ( <i>Gen Ed</i> )	3	WRT 150: Strategies in Writing	4
Gen Ed.	3	MTH 123: Trigonometry	3
<b>Total</b>	<b>15</b>	<b>Total</b>	<b>16</b>
Fall Semester – Year Two	credits	Winter Semester – Year Two	credits
BIO 215: General Ecology	4	BIO 375/376: Genetics/Genetics Lab	4
<b>CHM 231: Introductory Organic Chemistry</b> <i>Or<sup>1</sup></i>	4	<b>BIO Elective<sup>2</sup></b>	3
<b>CHM 241: Organic Chemistry for Life Science I</b>	4	<b>CHM 232: Biological Chemistry</b> <i>Or<sup>1</sup></i>	4
STA 215: Introductory Applied Statistics	3	<b>CHM 242: Organic Chemistry for Life Science II</b>	4
Gen Ed.	3	Gen Ed.	3
<b>Total</b>	<b>14</b>	<b>Total</b>	<b>14</b>
Fall Semester – Year Three	credits	Winter Semester – Year Three	credits
BIO 440: Limnology <sup>5</sup>	4	BIO Elective <sup>2</sup>	3
BIO Elective <sup>2</sup>	4	PHY 221: General Physics II <sup>3</sup>	5
PHY 220: General Physics I	5	WRT 305: Writing in the Disciplines <sup>4</sup>	3
Gen Ed. or Theme	3	Gen Ed. or Theme	3
<b>Total</b>	<b>16</b>	<b>Total</b>	<b>14</b>
Fall Semester – Year Four	credits	Winter Semester – Year Four	credits
BIO 450: Stream Ecology <sup>5</sup>	4	BIO 405/406: Cell and Molecular Biology w/lab	6
Elective	3	BIO 495: Evolutionary Biology	3
Gen Ed or Theme	3	Gen Ed. or Theme	3
Gen Ed. or Theme	3	Gen Ed. or Theme	3
Gen Ed. or Theme	3		
<b>Total</b>	<b>16</b>	<b>Total</b>	<b>15</b>

### Notes:

<sup>1</sup> If you plan to attend graduate or professional school, you will want to complete the CHM 241/242 sequence.

<sup>2</sup> Three courses must be chosen as your electives from the following three categories: Category 1: BIO 362 Fisheries Biology – OR – BIO 442 Fish Ecology; Category 2: BIO 232 Natural History of Invertebrates – OR – BIO 402: Aquatic Insects; Category 3: BIO 323 Aquatic Plants – OR – BIO 413 Freshwater Algae. BIO 323, 362, 440, and 450 are offered in the fall. BIO 232, 372, 413 and 442 are offered in the winter.

<sup>3</sup> PHY 221 is not required, but students planning to attend graduate school, professional school, or secondary teacher certification should complete a full year of physics.

<sup>4</sup> Students who pass out of WRT 305 have room to take a GenEd, Theme, or elective course in this semester.

<sup>5</sup> BIO 440 and BIO 450 are offered alternating Fall semesters.

### 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.

**It is imperative to meet with your faculty advisor or an advisor in the CLAS Academic Advising Center early in your career. The CLAS Academic Advising Center is located in C-1-140 MAK, 616-331-8585.**

Online at: <http://www.gvsu.edu/clasadvising>  
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