

# Biology (2011-2012)

## Plant Emphasis

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

**-Student needs MTH 110 prerequisite-**

| 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          |
| MTH 110: Algebra                                      | 4         | CHM 115: Principles of Chemistry I ( <i>Gen Ed</i> )          | 5          |
| WRT 150: Strategies in Writing                        | 4         | MTH 122: College Algebra ( <i>Gen Ed</i> ) <sup>3</sup>       | 3          |
| Gen Ed.   | 3         | Gen Ed.   | 3          |
| <b>Total</b>  | <b>15</b> | <b>Total</b>  | <b>15</b>  |
| 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         | <b>CHM 231: Introductory Organic Chemistry Or<sup>2</sup></b> | 4          |
| MTH 123: Trigonometry <sup>3</sup>                    | 3         | <b>CHM 241: Organic Chemistry for Life Science I</b>          | 4          |
| Gen Ed.   | 3         | MTH Cognate <sup>1</sup>                                      | 3          |
| <b>Total</b>  | <b>15</b> | Gen Ed.   | 3          |
|   |           | <b>Total</b>  | <b>14</b>  |
| Fall Semester – Year Three                            | credits   | Winter Semester – Year Three                                  | credits    |
| <b>CHM 232: Biological Chemistry Or<sup>2</sup></b>   | 4         | BIO 303: Plants and Fungi                                     | 4          |
| <b>CHM 242: Organic Chemistry for Life Science II</b> | 4         | PHY 221: General Physics II <sup>3</sup>                      | 5          |
| PHY 220: General Physics I <sup>3</sup>               | 5         | Gen Ed.   | 3          |
| BIO 333: Systematic Botany                            | 3         | Gen Ed.   | 3          |
| Gen Ed. or Theme                                      | 3         |   |            |
| <b>Total</b>  | <b>15</b> | <b>Total</b>  | <b>15</b>  |
| Fall Semester – Year Four                             | credits   | Winter Semester – Year Four                                   | credits    |
| BIO 405/406: Cell and Molecular Bio. w/lab (SWS)      | 6         | BIO 495: Evolutionary Biology                                 | 3          |
| BIO Elective <sup>4,5</sup>                           | 3         | BIO 403: Plant Structure and Function                         | 4          |
| Elective  | 3         | Gen Ed. or Theme  | 3          |
| Gen Ed. Or Theme                                      | 3         | Elective  | 3          |
|   |           | Elective  | 3          |
| <b>Total</b>  | <b>15</b> | <b>Total</b>  | <b>16*</b> |

**\*The block tuition rate is for 12-15 credits. You will pay additional tuition for any credits over 15.**

### Notes:

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

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

<sup>3</sup> MTH 122/123 are prerequisites for PHY 220 and not part of the Biology major. PHY 221 is not required, but students planning to attend graduate school, professional school, or secondary teacher certification should complete the physics 220/221 sequence.

<sup>4</sup> One animal biology course must be selected as an elective.

<sup>5</sup> The following courses may be of interest when selecting the Plant Biology Emphasis: BIO 323 Aquatic Plants, BIO 413 Freshwater Algae, BIO 423 Plant Biotechnology, BIO 573 Plants of the Great Lakes Region (with permission).

### 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. Complete a total of two courses with an SWS attribute. The two SWS courses may not be taken from the same department or school. One must be from outside the student's major unit.

**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>

Prepared by CLAS Academic Advising Center – 3/8/2011