

# Biology (2010-2011)

## Genetics and Cell/Molecular

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>
Spring Semester- Year One	credits	Summer Semester- Year One	credits
Gen. Ed.	3		
Fall Semester – Year Two	credits	Winter Semester – Year Two	credits
BIO 215: General Ecology	4	BIO 375/376: Genetics/Genetics Lab	4
MTH Cognate <sup>1</sup>	3	CHM 242: Organic Chemistry for Life Science II	4
CHM 241: Organic Chemistry for Life Science I	4	Gen Ed.	3
Gen Ed.	3	Gen Ed. or Theme	3
<b>Total</b>	<b>14</b>	<b>Total</b>	<b>14</b>
Spring Semester – Year Two	credits	Summer Semester – Year Two	credits
Gen Ed.	3	Gen Ed	3
Fall Semester – Year Three	credits	Winter Semester – Year Three	credits
BIO 405/406: Cell and Molecular Biology w/lab	6	BIO elective <sup>3</sup>	3
PHY 220: General Physics I	5	BIO elective <sup>3</sup>	3
CHM 461: Biochemistry	4	PHY 221: General Physics II <sup>2</sup>	5
<b>Total</b>	<b>15</b>	WRT 305: Writing in the Disciplines <sup>4</sup>	3
		<b>Total</b>	<b>17</b>
Fall Semester – Year Four	credits	Winter Semester – Year Four	credits
BIO 426: Nucleic Acids Laboratory	3	BIO 495: Evolutionary Biology	3
BIO 490/499: Internship/Research	3	BIO 490/499: Internship/Research	3
<b>BIO 422: Embryology OR</b>	3	BIO 423: Plant Biotechnology	3
<b>BIO 432: Comparative Animal Physiology</b>	4	Gen Ed. or Theme	3
CHM 462: Techniques in Biochemistry	3	Gen Ed. or Theme	3
Gen Ed. or Theme	3		
<b>Total</b>	<b>15-16</b>	<b>Total</b>	<b>15</b>

### 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> PHY 221 is not required, but is strongly recommended.

<sup>3</sup> Must select 2 out of the following classes: BIO 411: Genetics of Development and Cancer / 414: Molecular Biology of the Gene / 416: Advanced Genetics Laboratory.

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

### Special Notes:

- This is a **general** curriculum guide and will not work for everyone, especially those students who have AP or CLEP credit.
- 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.
- Remember to fulfill your 2 SWS requirements; 1 can be taken in the gen ed program and 1 in your major.
- 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.
- If your career goal is genetic counseling, a different set of courses may be more appropriate. Contact your advisor for assistance in course selection.
- 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>

Prepared by CLAS Academic Advising Center – 2/4/10