

Cell and Molecular Biology (2012-2013)

General

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

-Assumes MTH 110 prerequisite has been fulfilled-

Fall Semester – Year One	credits	Winter Semester- Year One	credits
BIO 120: General Biology I (<i>Gen Ed</i>)	4	CHM 116: Principles of Chemistry II	5
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>)	3	MTH 123: Trigonometry	3
Gen Ed.	3	Gen Ed.	3
Total	15	Total	15
Fall Semester – Year Two	credits	Winter Semester – Year Two	credits
CHM 241: Organic Chemistry for Life Science I OR	4	CHM 242: Organic Chemistry for Life Science II OR	4
CHM 245/246: Principles of Organic Chemistry I	4	CHM 247/248: Principles of Organic Chemistry II	4
MATH/Physics Sequence (Option A or B) ¹	4-5	BIO 375/376: Genetics/Genetics Lab	4
STA 215: Introductory Applied Statistics	3	Physics Sequence ¹	5
CMB 250: Introduction to Biotechnology	3	Elective	2-3
Total	14-15	Total	15-16[#]
**Fall Semester – Year Three	credits	Winter Semester – Year Three	credits
BIO 405/406: Cell and Molecular Bio. w/Lab (SWS)	6	CHM 462: Techniques in Biochemistry	3
CHM 461: Biochemistry I	4	Microbiology course (Option A or B) ²	4
Physics Sequence ¹	5	CMB 490: Internship in CMB OR	2
		CMB 499: Independent Research in CMB	2
		Gen Ed.	3
		Gen Ed. or Physics Sequence ¹	3
Total	15	Total	15
Fall Semester – Year Four	credits	Winter Semester – Year Four	credits
CMB/BIO 426: Nucleic Acids Laboratory	3	CMB 495: Perspectives in CMB	3
CMB 490: Internship in CMB ³ OR	1	Gen Ed. or Theme	3
CMB 499: Independent Research in CMB ³	1	Gen Ed.	3
CMB Elective	3	Elective	3
Gen Ed. or Theme	3	Elective	3
Elective	3		
Elective	2-3		
Total	15-16[#]	Total	15

[#]The block tuition rate is for 12-15 credits. You will pay additional tuition for any credits over 15.

Notes:

¹ Students must select a math/physics option (either option A or B). MTH 122 and 123 must be completed or waived prior to beginning either option.

Option A: MTH 125: Survey of Calculus, PHY 220: General Physics I, and PHY 221: General Physics II

Option B: MTH 201: Calculus I, MTH 202: Calculus II, PHY 230: Principles of Physics I, and PHY 231: Principles of Physics II

² Student must select a microbiology course (option A or B). Option A is BIO 357: Environmental Microbiology. Option B is BMS 212/213: Introductory Microbiology w/Lab.

³ Students should consult with their CMB faculty member about taking this course in the spring/summer before the senior year. A total of 3 research credits must be taken.

Special Notes:

A. This is a **general** curriculum guide and will not work for everyone, especially those students who have AP, IB or CLEP credit. For students without high school chemistry, CHM 109 is strongly encouraged.

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.

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 – 3/15/12