

Cell and Molecular Biology (2011-2012)

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	MATH/Physics Sequence (Option A or B)¹	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) ²	4-5	*BIO 375/376: Genetics/Genetics Lab	4
STA 215: Introductory Applied Statistics	3	Physics Sequence ³	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) ⁵	4
Physics Sequence ⁴	5	CMB 490: Internship in CMB OR	2
		CMB 499: Independent Research in CMB	2
		Gen Ed.	3
		Gen Ed.	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 ⁶ OR	1	Gen Ed. or Theme	3
CMB 499: Independent Research in CMB ⁶	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:

* A C+ or better is required for admission to the CMB program.

** Application to the CMB program will typically take place in the first semester of the junior year, after the student has completed CMB 250.

¹ Students must select a math/physics option (either option A or B). Option A consists of MTH 125: Survey of Calculus, PHY 220: General Physics I, and PHY 221: General Physics II (**For students completing Option A, MTH 122 and 123 must be completed before taking PHY 220**). Option B consists of MTH 201: Calculus I, MTH 202 Calculus II, PHY 230: Principles of Physics I, and PHY 231: Principles of Physics II. Regardless of the chosen option, the math courses must be taken first. If selecting option B, you must take MTH 123 before MTH 201 (take in place of the gen ed in the first semester).

² If you selected option A, take PHY 220. If you selected option B, take MTH 202.

³ If you selected option A, take PHY 221. If you selected option B, take PHY 230.

⁴ If you selected option A, you may take a CMB elective in this semester. If you selected option B, take PHY 231.

⁵ 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.

⁶ 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 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