

Chemistry (2012-2013)

Technical Emphasis

(For those students not planning to go to graduate school in chemistry)

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
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	MTH 123: Trigonometry	3
WRT 150: Strategies in Writing	4	Gen Ed.	3
Gen Ed.	3	Gen Ed.	3
Total	15	Total	14
Fall Semester – Year Two	credits	Winter Semester – Year Two	credits
CHM 222: Quantitative Analysis	3	CHM 225: Instrumental Analysis I	3
CHM 245: Principles of Organic I ¹	3	CHM 247: Principles of Organic II ¹	3
CHM 246: Principles of Organic I Lab	1	CHM 248: Principles of Organic II Lab	1
MTH 201: Calculus I	5	STA 215: Introductory Applied Statistics	3
Gen Ed.	3	CIS 160: Programming with Visual Basic OR	3
		CIS 162: Computer Science I	4
		Gen Ed.	3
Total	15	Total	16-17*
Fall Semester – Year Three	credits	Winter Semester – Year Three	credits
CHM 391: Chemistry Seminar I ²	0	PHY 221: General Physics II	5
CHM 351: Introduction to Physical Chemistry	3	CHM 352: Applied Physical Chemistry (<i>SWS</i>)	1
CHM 425: Instrumental Analysis II ⁵	3	CHM 391: Chemistry Seminar I ²	1
PHY 220: General Physics I	5	CHM 311: Green Chemistry and Industrial Processes ³	3
Gen Ed. or Theme	3	Gen Ed.	3
		Gen Ed. or Theme	3
Total	14	Total	16*
Fall Semester – Year Four	credits	Winter Semester – Year Four	credits
CHM 491: Chemistry Seminar II ²	3	CHM 344: Qualitative Organic Analysis	3
Upper-Level Chemistry Elective ⁴	3	CHM 491: Chemistry Seminar II ²	1
Gen Ed. or Theme	3	Gen Ed. or Theme	3
Elective	3	Elective	3
Elective	3	Elective	3
		Elective	3
Total	15	Total	16*

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

Notes:

¹ CHM 241 and CHM 242 may substitute for CHM 245/246/247/248. However, students must also take CHM 249 plus 28 additional lab-hour electives.

² Required of all chemistry majors. Two semesters of seminar are required for one credit. Students should register for zero credits in their first semester and one credit in their second semester.

³ Offered winter semesters of even-numbered years.

⁴ Students must select the elective from one of the following chemistry courses: CHM 321, 322, 441, 442, or 461. CHM 321 is offered winter semesters of odd-numbered years. CHM 322 is offered fall semesters of odd-numbered years.

⁵ Offered fall semester on sufficient demand. Since CHM 425 is not offered every fall semester, it is important students add it in the junior year if offered. See your faculty advisor if you have questions regarding CHM 425.

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 – 1/23/12