

Chemistry (2011-2012)

Professional Emphasis

(This emphasis offers excellent preparation for bachelor level employment and entry into graduate level and professional schools)

This is a **general curriculum** guide and is not applicable to every student and is not a replacement for meeting with your advisor. Many upper level chemistry courses are offered every other year. It is important to consult the annual class schedule and meet with your advisor when scheduling.

-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
Gen Ed.	3	WRT 150: Strategies in Writing	4
Gen Ed.	3	Gen Ed.	3
Total	14	Total	15
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	MTH 202: Calculus II	4
Gen Ed.	3	PHY 230: Principles of Physics I	5
Total	15	Total	16*
Spring Semester – Year Two	credits	Summer Semester – Year Two	credits
MTH 203: Calculus III (recommended)	4		
Fall Semester – Year Three	credits	Winter Semester – Year Three	credits
CHM 353: Physical/Computational Chemistry Lab I	2	CHM 355: Physical Chemistry Lab II (SWS) ³	1
CHM 461: Biochemistry I	4	CHM 358: Physical Chemistry II	3
CHM 372: Inorganic Chemistry Lab Techniques	1	CHM 391: Chemistry Seminar I ²	1
CHM 391: Chemistry Seminar I ²	0	Gen Ed. or Theme	3
CHM 356: Physical Chemistry I	4	Gen Ed. or Theme	3
PHY 231: Principles of Physics II	5	Elective	3
Total	16*	Total	14
Fall Semester – Year Four	credits	Winter Semester – Year Four	credits
CHM 471: Advanced Inorganic Chemistry (Capstone)	3	Upper-Level Chemistry Lab Elective ⁴	2-3
Chemistry Non-Lab Elective ⁵	3	CHM 491: Chemistry Seminar II ²	1
CHM 491: Chemistry Seminar II ²	0	Upper-Level Chemistry Lab Elective ⁴	2-3
Gen Ed. or Theme	3	Gen Ed. or Theme	3
Gen Ed. or Theme	3	Gen Ed. or Theme	3
Elective	3	Elective	3
Total	15	Total	14-16*

***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 CHM 455 may be taken instead of CHM 355. The additional 28 hours of lab count towards upper-level lab requirement.

⁴ You must choose lab electives, totaling 80 hours, from the following: CHM 322 (42), 344 (42), 425 (28), 462 (84), 452 (70), 455 (28), or 499 (84). Numbers in () are the amount of hours for each course.

⁵ Choose one course from the following non-lab classes: CHM 441, 463, 473, or 442.

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