Chemistry (2010-2011)

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.

-If a student is <u>starting</u> in MTH 110-

Fall Semester – Year One	**credits**	**Winter Semester- Year One**	**credits**
MTH 110: Algebra	4	CHM 115: Principles of Chemistry I *(Gen Ed)*	5
WRT 150: Strategies in Writing	4	MTH 122: College Algebra *(Gen Ed)*	3
Gen Ed.	3	MTH 123: Trigonometry	3
Gen Ed.	3	Gen Ed.	3
Total	14	***Total***	14
Spring Semester – Year One	**credits**	**Summer Semester – Year One**	**credits**
CHM 116: Principles of Chemistry II	5		
Fall Semester – Year Two	**credits**	**Winter Semester – Year Two**	**credits**
CHM 245: Principles of Organic I[1]	3	CHM 222: Quantitative Analysis	3
CHM 246: Principles of Organic I Lab	1	CHM 247: Principles of Organic II[1]	3
MTH 201: Calculus I	5	CHM 248: Principles of Organic II Lab	1
Gen Ed.	3	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 225: Instrumental Analysis I	3
CHM 356: Physical Chemistry I	4	CHM 355: Physical Chemistry Lab II[3]	1
CHM 391: Chemistry Seminar I[2]	0	CHM 358: Physical Chemistry II	3
PHY 231: Principles of Physics II	5	CHM 391: Chemistry Seminar I[2]	1
WRT 305: Writing in the Disciplines[4]	3	Gen Ed. or Theme	3
		Gen Ed. or Theme	3
Total	14	***Total***	14
Fall Semester – Year Four	**credits**	**Winter Semester – Year Four**	**credits**
CHM 372: Inorganic Chemistry Lab Techniques	1	CHM 491: Chemistry Seminar II[2]	1
CHM 461: Biochemistry I	4	Upper-Level Chemistry Lab Elective[5]	2-3
CHM 471: Advanced Inorganic Chemistry (Capstone)	3	Chemistry Non-Lab Elective[6]	3
		Gen Ed. or Theme	3
CHM 491: Chemistry Seminar II[2]	0	Gen Ed. or Theme	3
Upper-Level Chemistry Lab Elective[5]	2-3	Gen Ed. or Theme	3
Gen Ed. or Theme	3		
Total	16-17	***Total***	15-16

<u>Notes</u>:

[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 credit 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] Students who pass out of WRT 305 have room to take a GenEd/Theme course or an elective in this semester.

[5] You must chose 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.

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

<u>Special Notes</u>:

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. Remember to fulfill your 2 SWS requirements; 1 can be taken in the gen ed program and 1 in your major.

D. 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 chemistry electives.

E. 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