

# Chemistry (2010-2011)

## Environmental Emphasis

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 requirement 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
Track Course <sup>1</sup>	3	Gen Ed.	3
<b>Total</b>	<b>15</b>	<b>Total</b>	<b>14</b>
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 <sup>2</sup>	3	CHM 247: Principles of Organic II <sup>2</sup>	3
CHM 246: Principles of Organic I Lab	1	CHM 248: Principles of Organic II Lab	1
MTH 201: Calculus I	5	CIS 150: Introduction to Computing	3
Gen Ed.	3	PHY 220: General Physics I	5
<b>Total</b>	<b>15</b>	<b>Total</b>	<b>15</b>
Fall Semester – Year Three	credits	Winter Semester – Year Three	credits
CHM 351: Introduction to Physical Chemistry	3	CHM 352: Applied Physical Chemistry	1
CHM 391: Chemistry Seminar I <sup>3</sup>	0	CHM 321: Environmental Chemistry	3
PHY 221: General Physics II	5	CHM 391: Chemistry Seminar I <sup>3</sup>	1
STA 215: Introductory Applied Statistics	3	Track Course <sup>1</sup>	3
Track Course <sup>1</sup>	3	Gen Ed.	3
<b>Total</b>	<b>14</b>	Gen Ed. or Theme	3
		<b>Total</b>	<b>14</b>
Spring Semester – Year Three	credits	Summer Semester – Year Three	credits
WRT 305: Writing in the Disciplines <sup>4</sup>	3		3
Fall Semester – Year Four	credits	Winter Semester – Year Four	credits
CHM 322: Environmental Chemistry Analysis (Capstone) (Fall of Odd years)	3	CHM 491: Chemistry Seminar II <sup>2</sup>	1
CHM 491: Chemistry Seminar II <sup>2</sup>	0	OSH 414: Environmental Safety and Health Regulations	3
CHM Elective <sup>5</sup>	3	Track Course <sup>1</sup>	3
Track Course <sup>1</sup>	3	Gen Ed. or Theme	3
Gen Ed. or Theme	3	Gen Ed. or Theme	3
Gen Ed. or Theme	3	Gen Ed. or Theme	3
<b>Total</b>	<b>15</b>	<b>Total</b>	<b>16</b>

-Students interested in Graduate School should take CHM 356, 353, 358 and 355 or 455 instead of CHM 351 and 352. PHY 230/231 should be taken in place of PHY 220/221 and MTH 202 should also be taken-

### Notes:

<sup>1</sup>The environmental emphasis also requires specialization in a discipline outside of chemistry. Students must choose one of the following tracks to complete the emphasis: a) Biology Track – BIO 120 and BIO 215, and two of the following: BIO 338, BIO 357, BIO 440. b) Natural Resources Management Track – GEO 111 and NRM 281, and two of the following: GPY 307, NRM 320, NRM 451, NRM 452. c) Geology Track – GEO111 and GEO 112, and two of the following: GEO 440, GEO 445, GPY 307.

<sup>2</sup>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.

<sup>3</sup>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.

<sup>4</sup>Students who pass out of WRT 305 have room to take a GenEd, Theme, or elective course or an elective in this semester.

<sup>5</sup>Chemistry elective must be taken at the 300-400 level and be 2-3 credits (approval required).

### Special Notes:

- This is a **general** curriculum guide and will not work for everyone, especially those students who have AP or CLEP credit.
- 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.
- Remember to fulfill your 2 SWS requirements; 1 can be taken in the gen ed program and 1 in your major.
- 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.
- 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 – 4/23/2010