

CHEMISTRY-BA OR BS-PROFESSIONALTHIS IS A **GENERAL** CURRICULUM GUIDE AND IS NOT APPLICABLE TO EVERY STUDENT. IT IS IMPORTANT TO MEET WITH YOUR ADVISOR.

Year One			
CHM 115 Principles of Chemistry I Prerequisites: High school chemistry and (MTH 110 or MTH 122 or MTH 125 or MTH 201)	5	CHM 116 Principles of Chemistry II Prerequisites: CHM 115 and (MTH 122 or MTH 125 or MTH 201)	5
MTH 122 College Algebra Prerequisite: MTH 110 or assignment through Grand Valley math placement	3	WRT 150 Strategies in Writing	4
Gen Ed	3	MTH 123 Trigonometry Prerequisite: MTH 122 or assignment through Grand Valley math placement (MTH 122 may be taken concurrently)	3
Gen Ed	3	Gen Ed	3
<i>Total</i>	<i>15</i>	<i>Total</i>	<i>15</i>
Year Two			
CHM 222 Quantitative Analysis Prerequisites: CHM 116; Corequisite: CHM 241 or CHM 245	3	CHM 225 Instrumental Analysis I Prerequisite: CHM 222	3
¹ CHM 245 Principles of Organic Chemistry I	3	¹ CHM 247 Principles of Organic Chemistry II	3
CHM 246 Principles of Organic Chemistry I Lab Prerequisite: CHM 116; CHM 245 and 246 must be taken concurrently	1	CHM 248 Principles of Organic Chemistry II Lab Prerequisites: CHM 245 and CHM 246; CHM 247 and 248 must be taken concurrently	1
MTH 201 Calculus I Prerequisites: MTH 122 and MTH 123 or assignment through Grand Valley math placement	4	MTH 202 Calculus II Prerequisite: MTH 201	4
Gen Ed	3	PHY 230 Principles of Physics I Prerequisite: MTH 201	5
<i>Total</i>	<i>14</i>	<i>Total</i>	<i>16*</i>
Spring/Summer			
MTH 203 Calculus III (recommended)	4		
<i>Total</i>	<i>4</i>		
Year Three			
CHM 353 Physical/Computational Chemistry Lab I Prerequisites: CHM 222 and CHM 356 (may be taken concurrently)	2	^{3,4} CHM 355 SWS Physical Chemistry Laboratory II Prerequisites: CHM 222, CHM 253, and CHM 358 (may be taken concurrently)	1
CHM 461 Biochemistry I Prerequisites: CHM 242, CHM 247, or CHM 248	4	CHM 358 Physical Chemistry II Prerequisites: CHM 356 and PHY 231 (may be taken concurrently)	3
CHM 372 Inorganic Chemistry Lab Techniques Prerequisites: CHM 222; and CHM 247 or CHM 248 or CHM 249	1	² CHM 391 Chemistry Seminar I	1
² CHM 391 Chemistry Seminar I	0	Gen Ed	3
CHM 356 Physical Chemistry I Prerequisites: CHM 116, MTH 202, PHY 230	4	Issue/Theme	3
PHY 231 Principles of Physics II Prerequisite: PHY 230	5	⁵ Elective	3
<i>Total</i>	<i>16*</i>	<i>Total</i>	<i>14</i>
Year Four			
CHM 471 Advanced Inorganic Chemistry (Capstone) Prerequisites: CHM 351 or CHM 356 may be taken concurrently	3	⁷ Upper Level Chemistry Lab Elective Course	2/3
² CHM 491 Chemistry Seminar II	0	⁷ Upper Level Chemistry Lab Elective Course	2/3
⁶ Chemistry non-lab Elective Course	3	² CHM 491 Chemistry Seminar II	1
Gen Ed	3	⁵ Elective	3
Issue/Theme	3	Gen Ed	3
⁵ Elective	3	Gen Ed	3
<i>Total</i>	<i>15</i>	<i>Total</i>	<i>14-16*</i>

See reverse for notes

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

It is imperative to meet with your faculty advisor or an advisor in the CLAS Academic Advising Center regularly.

The CLAS Academic Advising Center is located in C-1-140 MAK, 616-331-8585.

Online at: <http://www.gvsu.edu/clasadvising>

¹CHM 241 and CHM 242 may substitute for CHM 245/246/247/248.

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.

³CHM 455 may be taken instead of CHM 355. The additional 28 hours of lab count towards upper-level lab requirement.

⁴Students must complete two courses with an SWS attribute.

⁵ Elective refers to any course to help you earn the required 120 credits for graduation.

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

⁷ 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.

Chemistry students can pursue a Bachelor of Arts or Bachelor of Science degree. Students who wish to obtain a BA must fulfill 3rd semester proficiency in a foreign language (201 level). The BS degree requirements are incorporated into the major requirements.

Declaring the Chemistry-Professional Major:

1. Log into myBanner from the GVSU homepage
2. Once logged in select "Student," "Student Records," and then "Change Major"
3. Click on the "Change Major 1/Program" box
4. Click on the down arrow in the box next to "New Major 1/Program," from here scroll down and choose "Chemistry – BA (or) BS Professional"
5. Click "Submit" and then "Change to New Program"

General Education Overlap

General Education Categories fulfilled by the Chemistry Major:
Physical Sciences with Lab: CHM 115
Mathematical Sciences: MTH 122 or MTH 123

Chemistry Elective Courses for the Chemistry Major Professional Emphasis

Choose ONE of the following non-lab courses:	80 hours of lab electives are required. Choose from the following: Numbers in () are the amount of hours for each course
CHM 441 Advanced Organic Chemistry	CHM 322 (42) Environmental Chemical Analysis
CHM 442 Polymer Chemistry	CHM 344 (42) Qualitative Organic Analysis
CHM 463 Biochemistry II	CHM 425 (28) Instrumental Analysis II
CHM 473 Organometallic Chemistry	CHM 452 (70) Advanced Synthetic Techniques
	CHM 455 (28) Physical/Computational Chemistry Lab II
	CHM 462 (84) Techniques in Biochemistry
	CHM 499 (42-84 depending on credits) Investigation Problems

Please Friend the GVSU Chemistry Facebook page: <https://www.facebook.com/gvsu.chemistrystockroom>