

CHEMISTRY-BS

THIS IS A GENERAL CURRICULUM GUIDE AND IS NOT APPLICABLE TO EVERY STUDENT. IT IS IMPORTANT TO MEET WITH YOUR ADVISOR.

Year One				
²CHM 115 Principles of Chemistry I Prerequisites: High school chemistry and (MTH 110 or MTH 122 or MTH 125 or MTH 201)	4 (6)	²CHM 116 Principles of Chemistry II Prerequisites: CHM 115 and (MTH 122 or MTH 124 or MTH 125 or MTH 201)	5 (7)	
⁴MTH 124 Precalculus: Functions and Models Prerequisite: MTH 110	5	WRT 150 Strategies in Writing Gen Ed Gen Ed	4 3 3	
Gen Ed Gen Ed	3 3			
<i>Numbers noted within (parentheses) are contact hours</i>	Total 15			Total 15
Year Two				
CHM 273 Principles of Inorganic Chemistry Prerequisites: CHM 116	3	CHM 221 Survey of Analytical Chemistry Prerequisites: CHM 116	4 (7)	
¹CHM 245 Principles of Organic Chemistry I	4	¹CHM 247 Principles of Organic Chemistry II	3	
¹CHM 246 Principles of Organic Chemistry I Lab Prerequisites: CHM 116; CHM 245 and 246 must be taken concurrently	1 (4)	¹CHM 248 Principles of Organic Chemistry II Lab Prerequisites: CHM 245 and CHM 246; CHM 247 and 248 must be taken concurrently	1 (4)	
MTH 201 Calculus I Prerequisites: MTH 124; or 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 (7)	
	Total 15			Total 16*
Year Three				
CHM 325 SWS Survey of Analytical Chemistry Prerequisites: CHM 221; WRT 150 with a C or better	4 (6)	CHM 352 SWS Applied Physical Chemistry Prerequisites: CHM 351 or 358 (may be taken concurrently)	1 (3)	
CHM 356 Physical Chemistry I Prerequisites: CHM 116, MTH 202, PHY 230	3	CHM 358 Physical Chemistry II Prerequisites: CHM 356 and PHY 231 (may be taken concurrently)	3	
PHY 231 Principles of Physics II Prerequisite: PHY 230 and MTH 202	5 (7)	CHM 391 Chemistry Seminar I Prerequisites: 18 credits of chemistry and junior standing	1	
Gen Ed	3	MTH 203 Calculus III (recommended) Issue ³ Elective	4 3 3	
	Total 15			Total 15
Year Four				
CHM 461 Biochemistry I Prerequisites: CHM 242, CHM 247, or CHM 248	3	CHM 491 Chemistry Seminar II (Capstone) Prerequisites: CHM 391 and senior standing	1	
Chemistry Elective (see p. 2)	3	Chemistry Elective (see p. 2)	3	
Gen Ed	3	Chemistry Elective (see p. 2)	3	
Issue	3	³ Elective	3	
³ Elective	3	Gen Ed	3	
	Total 15	Gen Ed	3	
				Total 16*

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

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

²Chemistry majors who have AP/IB Credit in CHM 115 and/or CHM 116 are generally better prepared for higher level chemistry courses if they take CHM 115 and CHM 116 at GVSU.

³Elective refers to any course that will help you earn the required 120 credits for graduation.

⁴ MTH 124 is not part of the major but may be required depending on math placement. **To take the Math Proficiency Tests online, visit this link: gvsu.edu/s/mv**

Declaring the Chemistry Major:

1. In myBanner, select "Student" > "Student Records" > "Change Major" > "Change Major 1/Program"
2. Choose "Chemistry-BS" from the drop-down box.
3. Click "Submit" and then "Change to New Program"

General Education Categories fulfilled by the Chemistry Major:
Physical Sciences with Lab: CHM 115
Mathematical Sciences: MTH 124 or MTH 201

Choose 3 classes from the following Chemistry Elective options (all classes are 3 credit hours)	
<u>Offered in Fall Semesters only:</u>	<u>Offered in Winter Semesters only:</u>
CHM 421 Green Chemistry for Sustainable Environment Prerequisite: One of CHM 231, CHM 242, or CHM 247	CHM 427 Green and Environmental Chemistry Lab Prerequisite: CHM 221; CHM 241, or CHM 245 and CHM 246
CHM 447 Organic Synthesis and Characterization Prerequisite: CHM 242, or CHM 247 and CHM 248	CHM 441 Advanced Topics in Organic Chemistry <i>(offered in odd-numbered years)</i> Prerequisite: CHM 242 or CHM 247
CHM 457 Advanced Physical and Instrumental Chemistry Lab Prerequisites: CHM 221 and CHM 352	CHM 442 Synthetic Polymers: Life Cycle and Emerging Sustainable Technologies <i>(offered in even-numbered years)</i> Prerequisite: CHM 242 or CHM 247
CHM 471 Advanced Inorganic Chemistry Prerequisites: CHM 242 or CHM 248; CHM 273; CHM 351 or CHM 356 (CHM 351 or CHM 356 may be taken concurrently)	CHM 463 Biochemistry II Prerequisite: CHM 461 and BIO 120
<u>Offered in both Fall and Winter Semesters:</u>	CHM 475 Electrochemistry <i>(offered in odd-numbered years)</i> Prerequisites: CHM 115, MTH 122; and PHY 221 or PHY 231; or permission of instructor.
CHM 462 Techniques in Biochemistry Prerequisite: CHM 461	CHM 477 Synthetic Inorganic Chemistry Prerequisites: CHM 273; CHM 242 or 248

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

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

**The CLAS Academic Advising Center is located in C-1-140 MAK, 616-331-8585
<http://www.gvsu.edu/clasadvising> (Also find us on Orgsync, Facebook, and Twitter!)**

Pre-Professional Advisors:

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See <http://gvsu.edu/s/zY> for additional details regarding professional school information.

Follow the Pre-Professional Blog: <https://preprofessionallakers.wordpress.com>