

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			
² CHM 115 Principles of Chemistry I Prerequisites: High school chemistry and (MTH 110 or MTH 122 or MTH 125 or MTH 201)	4 (6)	² CHM 116 Principles of Chemistry II Prerequisites: CHM 115 and (MTH 122 or MTH 124 or MTH 125 or MTH 201)	5 (7)
⁴ MTH 124 Precalculus: Functions and Models Prerequisite: MTH 110	5	WRT 150 Strategies in Writing	4
Gen Ed		Gen Ed	3
Gen Ed	3	Gen Ed	3
	3		
<i>Numbers noted within (parentheses) are contact hours</i>	<i>Total</i>	<i>Total</i>	<i>Total</i>
	15		15
Year Two			
CHM 273 Principles of Inorganic Chemistry Prerequisites: CHM 116	3	CHM 221 Survey of Analytical Chemistry Prerequisites: CHM 116	4 (7)
¹ CHM 245 Principles of Organic Chemistry I	4	¹ CHM 247 Principles of Organic Chemistry II	3
¹ CHM 246 Principles of Organic Chemistry I Lab Prerequisites: CHM 116; CHM 245 and 246 must be taken concurrently	1 (4)	¹ CHM 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		PHY 230 Principles of Physics I Prerequisite: MTH 201	5 (7)
	3		
<i>Total</i>	15	<i>Total</i>	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)	4
		Issue	3
		³ Elective	3
<i>Total</i>	15	<i>Total</i>	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
		Gen Ed	3
<i>Total</i>	15	<i>Total</i>	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> CHM 421 Green Chemistry for Sustainable Environment Prerequisite: One of CHM 231, CHM 242, or CHM 247 CHM 447 Organic Synthesis and Characterization Prerequisite: CHM 242, or CHM 247 and CHM 248 CHM 457 Advanced Physical and Instrumental Chemistry Lab Prerequisites: CHM 221 and CHM 352 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) <u>Offered in both Fall and Winter Semesters:</u> CHM 462 Techniques in Biochemistry Prerequisite: CHM 461	<u>Offered in Winter Semesters only:</u> CHM 427 Green and Environmental Chemistry Lab Prerequisite: CHM 221; CHM 241, or CHM 245 and CHM 246 CHM 441 Advanced Topics in Organic Chemistry (<i>offered in odd-numbered years</i>) Prerequisite: CHM 242 or CHM 247 CHM 442 Synthetic Polymers: Life Cycle and Emerging Sustainable Technologies (<i>offered in even-numbered years</i>) Prerequisite: CHM 242 or CHM 247 CHM 463 Biochemistry II Prerequisite: CHM 461 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 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 Facebook and Twitter!)

Pre-Professional Students

(Pre-Chiropractic, Pre-Dental, Pre-Medical, Pre-Optometry, Pre-Pharmacy, Pre-Podiatry, & Pre-Veterinary)

Keep in mind that you may major in anything so long as you complete the prerequisites for your professional program.

To schedule an appointment with a Pre-Professional Advisor in the CLAS Academic Advising Center, visit www.gvsu.edu/clasadvising and click on "Schedule Appointment"

To find more information on Pre-Professional programs, visit www.gvsu.edu/clasadvising/preprofessional