

GEOLOGY-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			
⁴ CHM 115 Principles of Chemistry I Prerequisites: High School Chemistry, MTH 110 or MTH 122 or MTH 125 or MTH 201	4	CHM 116 Principles of Chemistry II Prerequisites: CHM 115 and (MTH 122 or MTH 124 or MTH 125 or MTH 201)	5
⁴ GEO 111 Exploring the Earth MTH 122 College Algebra or MTH 124 Pre-Calculus Prerequisite: MTH 110 or assignment through Grand Valley math placement.	4 3/5	GEO 112 Earth History Prerequisite: GEO 111 (preferred) or GEO 100 or GEO 103 or GEO 105. MTH 123 Trigonometry (<u>DO NOT</u> take if you take MTH 124) or Gen Ed Prerequisite: Placement into MTH 123 via the calculus readiness test or MTH 122 (may be taken concurrently)	4 3
WRT 150 Strategies of Writing ¹ or WRT 120, or Gen Ed Note: if you take MTH 124, WRT 150 should be taken in the winter	4/3	Gen Ed or WRT 150 Strategies of Writing ¹ or WRT 130	3/4
<i>Total</i>	15/14	<i>Total</i>	15/16*
Year Two			
GEO 214 Solid Earth Materials and Systems or GEO 220 Earth Surface Materials and Systems Prerequisites: GEO 111 and CHM 115; GEO 112 and 175 may be taken concurrently	4	GEO 214 Solid Earth Materials and Systems or GEO 220 Earth Surface Materials and Systems Prerequisites: GEO 111 and CHM 115; GEO 112 and 175 may be taken concurrently	4
GEO 175 Research Tools for Geosciences Prerequisites: GEO 111 and GEO 112 (can be taken concurrently)	1	CHM 325 Instrumental Analysis (SWS) Prerequisite: CHM 221 and WRT 150	4
CHM 221 Survey of Analytical Chemistry Prerequisites: CHM 116 or one full year of General Chemistry	4	MTH 201 Calculus I Prerequisites: MTH 122 and MTH 123; or MTH 124; or Gen Ed	4
Gen Ed Gen Ed	3 3		3
<i>Total</i>	15	<i>Total</i>	15
Year Three			
GEO 311 Structural Geology Prerequisites: GEO 214 and MTH 123	4	GEO 312 Sedimentation-Stratigraphy Prerequisite: GEO 112	4
CHM 351 Introduction to Physical Chemistry Prerequisites: CHM 116, MTH 201, and PHY 220 or PHY 230 (may be taken concurrently)	3	CHM 352 Applied Physical Chemistry Prerequisites: CHM 116, MTH 201, CHM 351 (may be taken concurrently), and PHY 220 (may be taken concurrently)	1
PHY 230 Principles of Physics I Prerequisites: MTH 201 (MTH 202 is recommended as a corequisite)	5	GEO 445 Introduction to Geochemistry Prerequisites: GEO 112; GEO 220; MTH 122 and CHM 116 (may be taken concurrently); MTH 201 strongly recommended	3
Gen Ed	3	Gen Ed Issue	3 3
<i>Total</i>	15	<i>Total</i>	14
Year Four			
⁵ GEO 486 Geology Seminar (each fall semester) Prerequisite: GEO 214, GEO 220, and Junior standing in the Geology, Geology-Chemistry, or Earth science major or Geology Minor	1	³⁵ GEO 485 SWS Geology Seminar (each winter semester) Prerequisite: GEO 214, GEO 220, at least Junior standing in the Geology, Geology-Chemistry, or Earth science Major or Geology Minor. Permit required – students must secure a mentor and define a research question before enrolling in the course.	1
Geology Elective Course ² Elective Gen Ed Issue	3-5 3 3 3	² Elective ² Elective Gen Ed Gen Ed	3 3 3
<i>Total</i>	13-15	<i>Total</i>	13

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

¹ Students who self-place into WRT120 should take this course in the fall semester and then take WRT 130 in the winter semester of the first year. Students who self-place into WRT 150 should take this course in either semester of the first year. A grade of C or higher is required to fulfill these requirements.

² Elective refers to any course to help you earn the required 120 credits to graduate.

³ Students must complete a total of two courses with an SWS attribute.

⁴ **Students with an ACT Science Subscore below 22 tend to be more successful if they only take one science course during the Fall semester of Year 1.**

⁵ Students must take GEO 486 (only fall semester) and GEO 485 (only winter semester) – the preferred order is to take GEO 486 first and students are encouraged to identify a project and mentor early

CHM 109 is recommended prior to CHM 115 if chemistry was not taken in high school or if the ACT science subscore is below 22. However, CHM 109 does NOT count toward the Geo-Chemistry major.

Declaring the Geology-Chemistry 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”
5. From here scroll down and find “Geology-Chemistry”
6. Click “Submit” and then click “Change to New Program”

General Education Overlap

General Education Categories fulfilled by the Geology Chemistry Major:	
Mathematical Sciences: MTH 122, 123, 124, 201	Physical Science with a Lab: GEO 111