

CLIMATE SCIENCE - BS

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

Year One			
GEO 107 Climate Change: A Hot Science (GE Physical Science) Recommended for major but students can also choose: GEO 100, GEO 103, GEO 105, GEO 109, or GEO 111.	3	CHM 127+128 Principles of Chemistry II w/lab Prerequisites: CHM 125+126 and (MTH 122 or MTH 124 or MTH 125 or MTH 201)	5 (6)
CHM 125+126 Principles of Chemistry I w/lab (GE Physical Science) Prerequisites: High school chemistry and (MTH 110 or MTH 122 or MTH 125 or MTH 201)	4 (6)	MTH 201 Calculus I (GE Math) Prerequisites: MTH 122 & 123; or MTH 124; or proficiency through math placement.	4
MTH 124 Precalculus: Functions and Models (GE Math) Prerequisite: MTH 110 proficiency through math placement	5	GEO 112 Earth History Prerequisites: A course in physical or general geology, GEO 107 (preferred).	4
¹ WRT 120 or WRT 150 Strategies in Writing (GE Writing) (self-placement)	3-4	¹ WRT 130 OR GEO 175 Research Tools for Geosciences Prerequisites: GEO 112 (can be taken concurrently), and a course in physical or general geology, GEO 107 (preferred).	3 1
<i>Numbers noted within (parentheses) are contact hours</i> Total	15-16*	Total	16-14
Year Two			
GEO 220 Solid Earth Materials and Systems Prerequisites: A course in physical or general geology, GEO 107 (preferred). CHM 125+126. GEO 112 and GEO 175 recommended.	4	GEO 203 Weather and Climate PHY 215 Energy in Modern Life Prerequisite: MTH 110	3 4
MTH 202 Calculus II Prerequisite: MTH 201	4	STA 216 Intermediate Applied Statistics Prerequisite: STA 215 or STA 312	3
PHY 110 Physics of Climate Change Prerequisite: MTH 110	3	General Education	3
STA 215 Intro to Applied Statistics (GE Math) Prerequisite: MTH 110	3/4	Optional Elective	2
OR STA 312 Probability and Statistics Prerequisites: MTH 201	1		
² Optional Elective or GEO 175	1		
Total	15	Total	15
Year Three			
GEO 330 Data Analysis for Earth Scientists Prerequisite: MTH 122. GEO 112, GEO 175, and STA 215 recommended.	3	GEO 445 Introduction to Geochemistry (<i>Winter odd years only</i>) Prerequisite: GEO 220; MTH 122 and CHM 127+128 can be taken concurrently; MTH 201 recommended.	3
PHY 230 Principles of Physics I Prerequisite: MTH 201	5	PHY 231 Principles of Physics II Prerequisite: PHY 230 and MTH 202	5
OR PHY 220 General Physics I Prerequisites: MTH 122 & 123 or equivalent.	3	OR PHY 221 General Physics II Prerequisites: PHY 220	3
Quantitative Elective (see below)	3	Interdisciplinary Elective (see below)	3
General Education + U.S. Diversity	1	General Education + Global Perspectives	3
Optional Elective	1	Optional Elective	1
Total	15	Total	11
Year Four			
GEO 430 Oceanography (<i>Fall even years only</i>)	3	GEO 420 Glacial and Quaternary Geology (<i>Winter odd years only</i>)	4
GEO 417 Physical Climatology	3	GEO 485 Seminar (Capstone II) SWS <u>Winter Only</u> Prerequisite: GEO 214 & 220, at least Junior standing in the Geology, Geology-Chemistry, or Climate Science major or Geology minor. Permit required: must secure a mentor and define a research question before enrolling	1
GEO 484 Reading Seminar (Capstone I) Issues Gen Ed + SWS ³	1	General Education	3
General Education	3	General Education	3
Optional Elective	2	Issues Gen Ed or remaining General Education class	3
Total	15	Total	15-16

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

¹A grade of C or better is required in WRT 130 or 150 in order to satisfy the WRT requirement at GVSU.

²Students must have a **minimum of 120 credits** to graduate with **58 of the 120 credits** being from a senior level institution and the **final 30 of the 120 credits** completed at GVSU. Elective refers to any course that will help meet these requirements.

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

Declaring the Climate Science Major:

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

General Education Categories fulfilled by the Climate Science major:
Physical Science: GEO 107 (or GEO 100, 103, 105, 109, 111), CHM 125+126, PHY 220 or 230
Mathematical Sciences: MTH 124, MTH 201, STA 215
Issues: BIO 338 (elective)

Choose 1 class from each elective category	
Quantitative Elective: Choose 1 CIS 161 Computing for Data Science Applications I Prerequisite: MTH 122 & 123, or MTH 124, or MTH 201 CIS 164 Computing for Data Science Applications II Prerequisite: CIS 161 with a C or better STA 321 Applied Regression Analysis Prerequisite: STA 216 STA 418 Statistical Computing and Graphing with R Prerequisite: STA 215 or 220 or 312; and STA 216 or CIS 162 STA 426 Multivariate Data Analysis Prerequisite: STA 216	Interdisciplinary Elective: Choose 1 ENS 201 Introduction to Environmental and Sustainability Studies ENS 302 Environmental Justice BIO 338 Environmental Ethics (GE Issues) Prerequisite: Junior standing and fulfillment of general education Foundations - Writing GEO 312 Sedimentations-Stratigraphy (4 credits) Prerequisite: GEO 112 GEO 320 Geomorphology Prerequisite: GEO 112 GEO 470 Geophysics (4 credits) Prerequisite: MTH 201; Recommended: PHY 220 or 230

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

The CLAS Academic Advising Center is located in C-1-120 and C-1-140 MAK, 616-331-8585. To schedule an appointment with an advisor in the CLAS Academic Advising Center, visit www.gvsu.edu/clasadvising and click on “Schedule Appointment.”