

ACADEMIC ROADMAP
B.S. in Geology
(revised March 2020)

Freshman Year

FIRST SEMESTER		
Course Title	Catalog Number	Prerequisite(s)
ES Major Gateway Course I	GES 20X	None
Math I Option	MAT 1XX	Course dependent
Intellectual Foundations (IF) course		
IF course		
College Writing I	CWP 101	

SECOND SEMESTER		
Course Title	Catalog Number	Prerequisite(s)
ES Major Gateway Course II	GES 20X	None
Math II Option	MAT 1XX	Course dependent
IF course		
IF course		
College Writing II	CWP 102	CWP 101

Notes:

ES majors must take at least two out of the three 'gateway' courses: GES 200, GES 201, and GES 202 are offered on a rotating schedule.

Two-semester Math Option Combinations: A) MAT 124 & (MAT 126 -or- MAT 161/163); B) MAT 124 & MAT 311; C) MAT 126 & MAT 127; or D) MAT 161/163 & MAT 162/164. Depending on H.S. math courses, student might need to take MAT 114 before starting Math Combination. Option C or D is required for Professional Geologist Certification and Highly Recommended for graduate School.

Sophomore Year

THIRD SEMESTER		
Course Title	Catalog Number	Prerequisite(s)
Sedimentology and Stratigraphy	GES 306	GES Gateway
Fundamentals of Chemistry I and Lab	CHE111/113	See catalog
Physics I	PHY 1XX	Course dependent
IF course		

FOURTH SEMESTER		
Course Title	Catalog Number	Prerequisite(s)
Geomorphology	GES 307	GES Gateway
Fundamentals of Chemistry II and Lab	CHE112/114	See catalog
Physics II	PHY 1XX	Course dependent
IF course		

Notes:

Physics I: Student will take PHY 107 or PHY 111 by advisement.

Physics II: Student will take PHY 108 or PHY 112 by advisement.

Junior Year

FIFTH SEMESTER		
Course Title	Catalog Number	Prerequisite(s)
Mineralogy	GES 303	GES Gateway
3 rd year Research & Field Meth. Exp.	GES 323	GES Gateway
Maps and Mapmaking Using GIS	GEG 325	None
IF course		

SIXTH SEMESTER		
Course Title	Catalog Number	Prerequisite(s)
Igneous and Metamorphic Petrology	GES 401	GES 303
Structural Geol. & Struct. Field Exp.	GES 408/418	GES 303
Fundamentals of GIS	GEG 425	GEG 325
IF course		

Notes:

Senior Year

SEVENTH SEMESTER		
Course Title	Catalog Number	Prerequisite(s)
Geological Hazards	GES 428	GES 306, 307, 308
Hydrogeology	GES 452	One 300-level class
Geology Research Seminar	GES 471	Inst. Permission
Fourth Year GES Elective*	GES 4XX	

EIGHTH SEMESTER		
Course Title	Catalog Number	Prerequisite(s)
Geology Senior Seminar	GES 472	ESSE Senior
Elective or Fourth Year GES Elective*		
Elective		
Elective		

Notes:

*Select course from: GES 433 (Geology Independent Research) – can take up to 4 times, GES 488 (Internship), an approved Geology Field Camp, or similar experience by advisement. It is recommended that students complete a summer Geology Field Camp experience if possible.