

ACADEMIC ROADMAP
B.S. in Earth Sciences
(revised March 2020)

Freshman Year

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

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

Notes:

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

Math I Option: MAT 124, MAT 126, or MAT 161/163. Student might need to take MAT 114 here instead, depending on H.S. math.

Math II Option: MAT 126, MAT 127, MAT 162/164, MAT 311, or ECO 305 by advisement.

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
Lower Division GES Elective	GES 1XX	None
Intro Astronomy	GES 131	None
IF course		

FOURTH SEMESTER		
Course Title	Catalog Number	Prerequisite(s)
Geomorphology	GES 307	GES Gateway
Recommend: Chemistry II and Lab	CHE112/114	See catalog
Meteorology	GES 241	None
IF course		
IF course		

Notes: GES electives should be chosen by advisement.

Junior Year

FIFTH SEMESTER		
Course Title	Catalog Number	Prerequisite(s)
Mineralogy	GES 303	GES Gateway
Maps and Mapmaking Using GIS	GEG 325	None
Physics I	PHY 1XX	Course dependent
IF course		

SIXTH SEMESTER		
Course Title	Catalog Number	Prerequisite(s)
Structural Geol. & Struct. Field Exp.	GES408/418	GES 303
Upper Division GES Elective*	GES XXX	
Elective (Recommend: Physics II)		
IF course*		

Notes:

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

Physics II: Recommended that student also take PHY 108 or PHY 112 (by advisement).

Upper Division GES Elective may be GES 323 (3rd-year Research/Field Methods Experience), GES 452 (Hydrogeology), or an upper division Astronomy elective.

Senior Year

SEVENTH SEMESTER		
Course Title	Catalog Number	Prerequisite(s)
Geological Hazards	GES 428	GES 306, 307, 408
Upper Division GES Elective*	GES XXX	
Upper Division Elective		
Elective***		

EIGHTH SEMESTER		
Course Title	Catalog Number	Prerequisite(s)
Geology Senior Seminar**	GES 472	ESSE Senior
Upper Division elective		
Elective (if needed)		
Elective (if needed)		

Notes:

*Student will take at least 6 credits from: GES 323, GES 452, and an upper-division astronomy elective.

**GES 472 (Geology Senior Seminar) may be replaced with GES 431 (Planetarium Seminar)

***For students planning to become science teachers, these courses should include: EXE 100, SPF 303, and GES 431.

Students planning to become science teachers should also consider taking 9 credits of graduate courses during their senior year (SCI 545, SCI 664, and other SCI course).