

CURRICULUM GUIDE

**Environmental and Applied Geology, B.S. (Academic Concentration)
2022-2023**

Website: www.geosciences.eku.edu

Email Contact: alice.jones@eku.edu

Department of Physics, Geosciences, & Astronomy

521 Lancaster Ave.

3140 Science Bldg.

Richmond, KY 40475

859-622-1521

The schedule below is an **EXAMPLE** of how you can arrange your class schedule.

Please consult your advisor for specific changes that may need to be made.

	Fall Semester	Spring Semester	
Freshman Year	SCO 100P	1	
	† GLY Restricted Elective #1	3	
	Gen. Ed. 1A (ENG 101)	3	
	Gen. Ed. 3A (Arts)	3	
	Gen. Ed. 5B (Soc. & Behav. Sci.)	3	
	Gen Ed. 6 (Diversity)	3	
	TOTAL	16	
Sophomore Year	° CHE 111 (fulfills Gen. Ed. 4)	3	
	CHE 111L	1	
	GLY 309	4	
	° MAT 234	4	
	Gen. Ed. 3B (Humanities)	3	
	TOTAL	15	
	Junior Year	GLY 410	4
GLY 415		4	
° PHY 131 <u>or</u> 201 (fulfills Gen. Ed. 4)		5	
GLY 408 <u>or</u> Free Elective		2	
TOTAL		15	
Senior Year		GLY 498	3
		‡ GEO/GLY Restricted Elective #2	3
	‡ GEO/GLY Restricted Elective #2	3	
	Free Elective	3	
	Free Elective	3	
	TOTAL	15	
	TOTAL HOURS TO DEGREE COMPLETION		120

Course Number	Course Name
GENERAL EDUCATION & UNIVERSITY REQUIREMENTS (37)	
SCO 100P	Student Success Seminar (1)
CORE COURSE REQUIREMENTS (41)	
GLY 309*	Mineralogy (4)
GEO 353	Geographic Information Systems (3)
GLY 409*	Igneous & Metamorphic Petrology (4)
GLY 410*	Structural Geology (4)
GLY 415	Sedimentary Geology (4)
GLY 420	Stratigraphy and Paleontology (4)
GLY 450W*	Evolution of the Earth (3)
[GLY 498 <u>and</u> GLY 499	Capstone Project in Geology (3)
OR	Senior Thesis (3)
GLY 451	Field Camp (6) (summer only)
GLY 535*	Hydrogeology (3) (spring only)
† PLUS SIX (6) HOURS selected from the following (restricted elective 1):	
GLY 104	The World Ocean (3)
GLY 107	Gold and Diamonds (3)
GLY 108	Earthquakes and Volcanoes (3)
GLY 109	Great Moments in Earth History (3)
GEO 210	Introduction to Physical Geography (3)
ACADEMIC CONCENTRATION REQUIRED COURSES (9)	
‡ THREE (3) HOURS selected from the following: (if not selected here, can be selected in the six hours restricted elective. Cannot use for credit in both areas.)	
GEO 325	Environmental Land Use Planning (3)
GLY 303	Environmental Geoscience (3) (spring only)
GLY 408	Process Geomorphology (3)
‡ SIX (6) HOURS selected from the following (restricted elective 2):	
GEO 302W	Global Environmental Problems (writing intensive)(3)
GEO 315	Meteorology (3)
GEO 325	Environmental Land Use Planning (3)
GEO 343	Geography of Kentucky (3)
GEO 351	Geographic Techniques (3)
GEO 453	Advanced GIS (3)
GEO 455	GIS Cartography (3)
GEO 456	Remote Sensing (3)
GEO 458	Advanced Geographic Imagery (3)
GLY 210*	Geochemistry (3) (fall only)
GLY 303	Environmental Geoscience (3) (spring only)
GLY 315*	Hydrology (3)
GLY 351	Field methods (3)
GLY 408	Process Geomorphology (3) (spring only)
GLY 460*	Aqueous Geochemistry (3) (spring only)
GLY 480	Petroleum Geology (3) (spring only)
GLY 482	Paleoclimate (3)
GLY 580	Selected Topics: _____ (1-2)
STA 215 <u>or</u>	Introduction to Statistical Reasoning (3)
STA 270	Applied Statistics (4)
SUPPORTING COURSE REQUIREMENTS (13)	
[° CHE 111 <u>and</u> CHE 111L	General Chemistry I (3)
[CHE 112 <u>and</u> CHE 112L	General Chemistry Lab I (1)
[° *MAT	General Chemistry II (3)
[° PHY 131 <u>or</u> PHY 201	General Chemistry II Lab (1)
[PHY 132 <u>or</u> PHY 202	Calculus I (4)
[° PHY 131 <u>or</u> PHY 201	Calculus I (4)
[PHY 132 <u>or</u> PHY 202	College Physics I (5)
[° PHY 131 <u>or</u> PHY 201	University Physics I (5)
[PHY 132 <u>or</u> PHY 202	College Physics II (5)
[° PHY 131 <u>or</u> PHY 201	University Physics II (5)
[PHY 132 <u>or</u> PHY 202	University Physics II (5)
Bracketed items must be taken concurrently	
FREE ELECTIVES (20)	

* **PREREQUISITES:** Consult with your advisor and/or the University catalog regarding prerequisites for upper division GLY and GEO courses. MAT 114 or higher. MAT 234.

Upper division courses: All students are required to have a minimum of 42 hrs. upper division courses distributed throughout Major/Supporting/Gen Ed/Free Electives categories. If 300-level classes are taken for Gen. Ed., they can be used to fulfill the 42 hours instead of upper division free electives.

Refer to the University Catalog at <http://www.catalogs.eku.edu/> regarding University and General Education Requirements. All baccalaureate degree seeking students who enter the University are required to successfully complete one writing intensive course following completion of the ENG 102, ENG 105, or HON 102/103. Writing intensive courses are designated with the suffix "W" following the course prefix and number(e.g. HUM 300W).

Applied Critical & Creative Thinking (ACCT) Requirement: Geography majors will fulfill ACCT with GLY 498 and 499, or 451 (6) (If GLY 451 is selected, it should be taken the summer between the Junior and Senior years). (Credit hours are incorporated into program requirements below.)

° Denotes that 3 credit hours from this course are/can be applied to fulfill a Gen. Ed. requirement.

*These classes are offered on an every other year schedule. Check with your advisor for availability.