

ENVIRONMENTAL, SUSTAINABILITY, AND GEOGRAPHIC STUDIES, BACHELOR OF SCIENCE (5009)

Program Coordinator

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The Environmental, Sustainability, and Geographic Studies program focuses on environment related issues using scientific, technological, and humanistic approaches to understand the interactive nature and interdependence of environmental and human factors. The program is structured around foundational courses, technical course work, and applied real-world experiences. Foundational instruction introduces students to basic principles of environmental science and related subjects, such as sustainability science, environmental planning, pollution control, natural resource management, spatial data analysis, economics, cultural geography, and the general interactions of humans and nature. The program prepares students for thinking critically about the complexities of human-environmental interactions through technical course work encompassing scientific writing, quantitative skills and data analysis, applied field- and lab-based experiences, and effective use of geospatial technologies (e.g., GIS and cartography, GPS, radar, satellite, drone, photogrammetry, environmental quality monitors, and surveying). Since the geoenvironmental sector is very broad in scope, the major does not include pre-defined and narrow concentrations. Instead, the program allows students to complete a customized set of elective coursework that best prepares them for a graduate program or any one of the wide ranging careers in the environmental field that they find of most interest. The program not only prepares students with essential knowledge in the fields of environment and sustainability but also trains students with critical information processing and geospatial analysis skills to meet the demands of employers in diverse industries with information-age needs in the 21st Century.

Program Requirements (53 hours)

A baccalaureate degree requires a minimum of 120 unduplicated semester hours. More information can be found at www.wku.edu/registrar/degree_certification.php. (https://www.wku.edu/registrar/degree_certification.php)

Students who began WKU in the Fall 2014 and thereafter should review the Colonnade requirements located at: <https://www.wku.edu/colonnade/colonnaderequirements.php>. (<https://www.wku.edu/colonnade/colonnaderequirements.php>)

This major provides students with a versatile background in environmental, sustainability, and geographic sciences for entry-level employment or graduate school. A minor program is not required. Beyond the core coursework, the program is customized for each student. Specifically, since the environmental field is so broad, elective coursework is customized for each student to assist in preparing them for their individualized graduate school or professional goals.

Code	Title	Hours
Core Courses (32 hours)		
Introductory Physical Earth Course		
GEOG 103	Our Dynamic Planet	3
or GEOL 111	The Earth	
or METR 121	Meteorology	
Introductory Human/Cultural Geography Course		
GEOG 110	World Regional Geography	3
Introductory Environmental Science Course		
Sustainability Course		
GEOG 280	Environmental Science and Sustainability	4
GEOG 380	Global Sustainability	3
or GEOG 480	Sustainable Cities	
Technical Courses		
GISC 316	Geographic Information Systems I	4
GISC 317	Geographic Information Systems II	4
GEOG 391	Geoscience Data Analysis	4
GEOG 300	Writing in the Geosciences	3
Professional Preparation Courses		
GEOG 499	Professional Preparation	1
GEOG 452	Applied Geoscience Field Experiences	3
or GEOG 495	Applied Research, Independent Study, or Internship	
or GEOG 475	Selected Topics in Environment, Geography, and Sustainability	
Total Hours		32

Code	Title	Hours
Electives (21 hours)		
Elective coursework selected from any GEOG, GISC, METR, or GEOL 200-400 level course with advisor approval. Up to six hours may be taken outside of the geoscience discipline with advisor approval.		21

Finish in Four Plan

First Year			
Fall	Hours	Spring	Hours
GEOG 103, GEOL 111, or METR 121		3 GEOG 110	3
GEOG 175		2 GEOG 210	3
ENG 100		3 GEOG 280	4
MATH 116		3 MATH 183	3
HIST 101 or HIST 102		3 COMM 145	3
		14	16
Second Year			
Fall	Hours	Spring	Hours
GISC 316		4 GEOG 300	3
GEOG Major Elective		3 GISC 317	4
Colonnade: Connections (Local to Global)		3 GEOG 380	3
Colonnade: World Language Requirement		3 Colonnade: Connections (Social and Cultural)	3

Colonnade: Arts & Humanities	3		
	16		13
Third Year			
Fall	Hours	Spring	Hours
GEOG 391		4 GEOG 452, GEOG 475, or GEOG 495	1-6
GEOG Major Elective		3 GEOG Major Elective	3
ENG 200		3 GEOG Major Elective	3
Colonnade: Connections (Systems)		3 University Elective	3
University Elective		3 University Elective	3
	16		16
Fourth Year			
Fall	Hours	Spring	Hours
GEOG 499		1 GEOG Elective	3
Field Studies/Intern		4 GEOG Elective	3
GEOG Major Elective		3 Independent Research	3
Independent Research		3 GEOG or University Elective	3
University Elective		3 University Elective	3
	14		15

Total Hours 120

- 120 Hours total are required in the program, with 42 hours at the 300/400 level.
- Summer courses, including Study Abroad, Field Camps, and other independent research opportunities, can reduce the number of hours required in the regular semesters.
- Any of the courses can be moved from semester to semester to take advantage of courses when offered.
- The WKU Colonnade Program requires a minimum of 39 hours, with several required courses in the Geography program that can be double-counted. GEOG courses marked * count for Colonnade Credit.
- Colonnade Connections courses are restricted to Juniors/Seniors, unless 21 credit hours of Colonnade Explorations and Foundations courses have already been completed. Three disciplines are required for Connections credit (METR, GEOG, GEOL, and GISC count as separate disciplines).

REQUIRED IN THE MAJOR (53 hours): **CORE COURSES** = GEOG 103* or GEOL 111* or METR 121*, GEOG 110*, GEOG 280*, GEOG 380* or GEOG 480, GEOG 300*, GISC 316, GISC 317, GEOG 391, GEOG 452* or 475 or 495, GEOG 499 (32 hours); **ELECTIVES** = any 21 hours of approved GEOG/GEOL/GISC/METR or equivalent coursework; PLUS MATH 116* and MATH 183*