



BACHELOR of SCIENCE in GEOGRAPHIC INFORMATION SCIENCE (#576)

Department of Geography and Geology
 Ogden College of Science and Engineering
 Western Kentucky University

The suggested program of study shown below should be used in consultation with your advisor(s). Every student will finish with a unique plan of his/her own depending on the electives selected.

SAMPLE – Finish in Four Plan

| FIRST YEAR (Freshman Year) | | | |
|---|-----------|---------------------------------------|-----------|
| GEOG 103 (Colonnade Explorations) | 3 | GEOG 110 WRG (Colonnade Explorations) | 3 |
| GEOG 175 Freshman University Experience | 2 | MATH 117 Trigonometry | 3 |
| ENG 100 (Colonnade Composition) | 3 | COMM 145 (Colonnade Communication) | 3 |
| MATH 116 Coll. Algebra (Colonnade Math) | 3 | Arts & Hum. (Colonnade Explorations) | 3 |
| HIST 101 or 102 (Colonnade History) | 3 | Language (or ENG 200) | 3 |
| SEMESTER CREDIT HOURS | 14 | SEMESTER CREDIT HOURS | 15 |

| SECOND YEAR (Sophomore Year) | | | |
|---|-----------|---|-----------|
| GISC 316 Fundamentals of GIS | 4 | GISC 317 GIS | 4 |
| CE 160/161 Land Surveying and Lab | 4 | CS 170 Problem Solving & Programming | 3 |
| Literary Studies: ENG 200 (or Language) | 3 | MATH 183 Introductory Statistics | 3 |
| Colonnade Explorations Science Lab Course | 3 | S/C Colonnade Connections | 3 |
| L/G Colonnade Connections (e.g. GISC 216) | 3 | Geography Course (or University Elective) | 3 |
| SEMESTER CREDIT HOURS | 17 | SEMESTER CREDIT HOURS | 16 |

| THIRD YEAR (Junior Year) | | | |
|---|-----------|---|-----------|
| AMS 163 Architectural Drafting, or CS 180 Computer Science I, or CS 270 Intro. to Web Programming | 4 | GEOG 300 Writing in the Geosciences (Colonnade Writing) | 3 |
| GEOG 391 Spatial Data Analysis (Statistics) | 4 | GEOG 350 Economic Geography, or GEOG 480 Urban Geography, or GEOG 492 Advanced Spatial Data Analysis (Statistics) | 3 |
| GISC 417 GIS Analysis & Modeling | 3 | GISC 414 Fundamentals of Remote Sensing | 4 |
| System Colonnade Connections | 3 | GISC 419 GIS Programming | 3 |
| | | GEOG 475/495 Research/Internship | 3 |
| SEMESTER CREDIT HOURS | 14 | SEMESTER CREDIT HOURS | 16 |

| FOURTH YEAR (Senior Year) | | | |
|---|-----------|---|------------|
| GISC 423 Geoprocessing and GIS Apps | 3 | GISC 418 Internet GIS | 3 |
| GISC 443 GIS Databases | 3 | Geography Course (or University Elective) | 3 |
| GEOG 475/495 Research/Internship | 3 | Geography Course (or University Elective) | 3 |
| GEOG 499 Professional Development | 1 | Independent Research | 3 |
| Geography Course (or University Elective) | 3 | Geography Course (or University Elective) | 3 |
| SEMESTER CREDIT HOURS | 13 | SEMESTER CREDIT HOURS | 15 |
| | | | |
| | | Total Credits | 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): **Major Courses:** GEOG/L 103 (or GEOL 111, or METR 121)*, GEOG 110*, CS 170, GEOG 300*, GISC 316, GISC 317, GEOG 350 (or GEOG 480, or GEOG 492), GEOG 391, GISC 414, GISC 417, GISC 418, GISC 419, GISC 423 (or GEOG 477), GISC 443, GEOG 475 (or GEOG 495), and GEOG 499. **Required Support Courses** are CE 160/161, AMS 163, (or CS 180, or CS 270), MATH 118 (or MATH 116 and MATH 117) and MATH 183.*

World Language Requirement: Language Proficiency of novice-high before completing 60 credit hours is required (or completion of 2nd level of a language). Two credits (or equivalent) of a single world language in High School satisfies this WKU requirement.

For more Information: **Department:** Geography and Geology
Website: <https://www.wku.edu/geoweb/>
Phone: (270) 745-4555
Email: geoscience@wku.edu
Course Descriptions: <http://www.wku.edu/undergraduatecatalog/>