

Welcome to the Geography Program at Western Kentucky University

Tracks in the Geography Major

City and Regional Planning Track

Core Requirements (100, 101, 110, 300, 319, 391) = 18 hours
 Track Requirements (240, 317, 474, and 484) = 12 hours
 Electives (350, 417, 419, 423, 479, 480, 487, 488, 495) = 3 hours
 Additional Requirements: Math 116

GIS and Spatial Analysis Track

Core Requirements (100, 101, 110, 300, 319, 391) = 18 hours
 Track Requirements (317, 415, 417, 419) = 12 hours
 Electives (any upper division course) = 3 hours
 Additional Requirements:
 Math 118 (or Math 116 and 117), CS 240, AMS 202

Education in Geography (EDGE) Track

Core Requirements (100, 101, 110, 300, 319, 391) = 18 hours
 Track Requirements (350, 360, 451, 471) = 12 hours
 Electives (any upper division course) = 3 hours

General Geography Track

Core Requirements (100, 101, 110, 300, 319, 391) = 18 hours
 Electives (Any 15 hours - see advisor) = 15 hours

Meteorology and Climatology Track

Core Requirements (100, 101, 110, 300, 319, 391) = 18 hours
 Track Requirements (121, 422) = 7 hours
 Electives (122, 222, 310, 328, 416, 424, 426, 429, 431) = 9 hours
 Additional Requirements: Math 120, Physics 201 and 207

Environmental Planning and Management Track

Core Requirements (100, 101, 110, 300, 319, 391) = 18 hours
 Track Requirements (280, 328, 471, 474) = 12 hours
 Electives (310, 317, 350, 415, 417, 419, 452, 487) = 3 hours
 Additional Requirements: Phil 320 (Ethics)

Sustainable Global Development

Core Requirements (100, 101, 110, 300, 319, 391) = 18 hours
 Track Requirements (350, 471, 480, 1 regional*) = 12 hours
 Electives (210, 317, 425, 462, 464, 465, 466, 485) = 3 hours

* Note: A non-US regional course must be taken.

Additional Requirements: Phil 320 (Ethics)

| City and Regional Planning | |
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| Core Courses | 18 hours |
| Track Courses | 12 hours |
| Track Electives | 3 hours |
| Track Total | 33 hours |
| <i>Additional Requirements:</i> | |
| Math 116 | 3 hours |
| GIS and Spatial Analysis | |
| Core Courses | 18 hours |
| Track Courses | 12 hours |
| Track Electives | 3 hours |
| Track Total | 33 hours |
| <i>Additional Requirements:</i> | |
| Math 118 (or 116 + 117) | 5 hours |
| CS 240 | 3 hours |
| AMS 202 | 3 hours |
| Education in Geography (EDGE) | |
| Core Courses | 18 hours |
| Track Courses | 12 hours |
| Track Electives | 3 hours |
| Track Total | 33 hours |
| General Geography | |
| Core Courses | 18 hours |
| Track Electives | 15 hours |
| Track Total | 33 hours |
| Meteorology and Climatology | |
| Core Courses | 18 hours |
| Track Courses | 7 hours |
| Track Electives | 9 hours |
| Track Total | 34 hours |
| <i>Additional Requirements:</i> | |
| Physics 201 | 3 hours |
| Physics 207 | 1 hour |
| Math 120 | 3 hours |
| Environmental Planning and Management | |
| Core Courses | 18 hours |
| Track Requirements | 12 hours |
| Track Electives | 3 hours |
| Track Total | 33 hours |
| <i>Additional Requirements:</i> | |
| Phil 320 (Ethics) | |
| Sustainable Global Development | |
| Core Courses | 18 hours |
| Track Requirements | 12 hours |
| Track Electives | 3 hours |
| Track Total | 33 hours |
| <i>Additional Requirements:</i> | |
| Phil 320 (Ethics) | |

Full Details about the Program Tracks and Course requirements are available on the Department website: <http://www.wku.edu/geoweb/courses.htm>

Welcome to the Geography and Geology Department at Western Kentucky University
Geography -- The Dynamic Discipline

Geography is an exciting field and one that offers tremendous opportunities in a variety of areas. Many practicing geographers follow their dreams by perusing maps and envisioning grand excursions to distant lands. Others seek to make their mark by exploring the complex workings of their immediate surroundings. Whichever the case, geographers dream of going places – either via travel or professional advancement. For those who share similar dreams, there is ample opportunity in the early twenty-first century in the field of geography.

Geography's three main areas – human, physical, and technical – all have experienced expansion in recent years. The program tracks offered in the Department seek to pinpoint areas of recent employment growth and offer career guidance to those wishing to become practicing geographers. A B.S. degree in geography can open the door for entry-level positions. Depending on the specialty, a graduate with a bachelor's degree can move into a government or private sector job that will utilize her/his skills. Perhaps the greatest range of opportunities for those with a single degree are in the computer mapping, climatology, and environmental fields. It is important to take upper-division courses that provide training in techniques and applications in those areas in order to move quickly into the workforce. Quite typically today, employers will provide some additional training to new workers. Taking advantage of those opportunities, along with good job performance, can enable advancement with a bachelor's degree.

One common trait of geographers is that they are curious about what lies around the corner. This impulse to explore is extremely important for job seekers. Stay alert to the obvious opportunities, but also those that might not be apparent. Look over the next ridge; do not be content with the limited options visible from where you sit. Job seekers must, like good field geographers, get up from their computers and get their boots dirty searching out the best vantage point, and from there examine every opportunity with great care. There are many geographers who have blazed the employment trail and now work in diverse environments across the country, and beyond. Most have found satisfaction pursuing their youthful dreams. We hope you too will fulfill your dreams and discover personal and professional rewards as geographers.

Specific Tracks are available in:

- City and Regional Planning
- Education in Geography
- Environmental Planning and Management
- Sustainable Global Development
- GIS and Spatial Analysis
- General Geography
- Meteorology and Climatology

Geography Minors are available in:

- *General Geography* -- Geog 100, 101, 110, and one techniques course (chosen from Geog 300, 317, 319, 391, 415, 417, 419, and 452), and 9 hours of electives chosen in consultation with your advisor.
- *City and Regional Planning (Management Track)* -- Geog 240, 484, and one techniques course (chosen from Geog 300, 317, 319, 391, 415, 417, 419, and 452), six hours chosen from Geog 423, 434, 474, 480, 488, and 495, and 6 hours of electives chosen in consultation with your advisor.
- *City and Regional Planning (GIS Analysis)* -- Geog 240, 484, and 317; six hours chosen from Geog 417, 474, 488, and 495; and 6 hours of electives (chosen from Geog 319, 419, 423, and 480 in consultation with your advisor).

Welcome to the Geography and Geology Department at Western Kentucky University Geographic Information Systems (GIS) -- Dynamic Spatial Analysis

Geography is an exciting field and one that offers tremendous opportunities in a variety of areas. Many practicing geographers follow their dreams by perusing maps and envisioning grand excursions to distant lands. Others seek to make their mark by exploring the complex workings of their immediate surroundings using such analytical tools as GIS. Whichever the case, geographers help identify and solve human-environment problems, and GIS is a powerful tool for helping in this process. For those who share similar dreams, there is ample opportunity in the early twenty-first century in the field of geography, and especially in GIS.

Geography's three main areas – human, physical, and technical – all have experienced expansion in recent years. The program tracks offered in the Department seek to pinpoint areas of recent employment growth and offer career guidance to those wishing to become practicing geographers. A B.S. degree in geography can open the door for entry-level positions. Depending on the specialty, a graduate with a bachelor's degree can move into a government or private sector job that will utilize her/his skills. Perhaps the greatest range of opportunities for those with a single degree are in the GIS (computer mapping), climatology, and environmental fields. It is important to take upper-division courses that provide training in techniques and applications in those areas in order to move quickly into the workforce. Quite typically today, employers will provide some additional training to new workers. Taking advantage of those opportunities, along with good job performance, can enable advancement with a bachelor's degree.

One common trait of geographers is that they are curious about what lies around the corner. This impulse to explore is extremely important for job seekers. Stay alert to the obvious opportunities, but also those that might not be apparent. Look over the next ridge; do not be content with the limited options visible from where you sit. Job seekers must, like good field geographers, get up from their computers and get their boots dirty searching out the best vantage point, and from there examine every opportunity with great care. There are many geographers who have blazed the employment trail and now work in diverse environments across the country, and beyond. Most have found satisfaction pursuing their youthful dreams. We hope you too will fulfill your dreams and discover the rewards of geography.

Specific Tracks are available in:

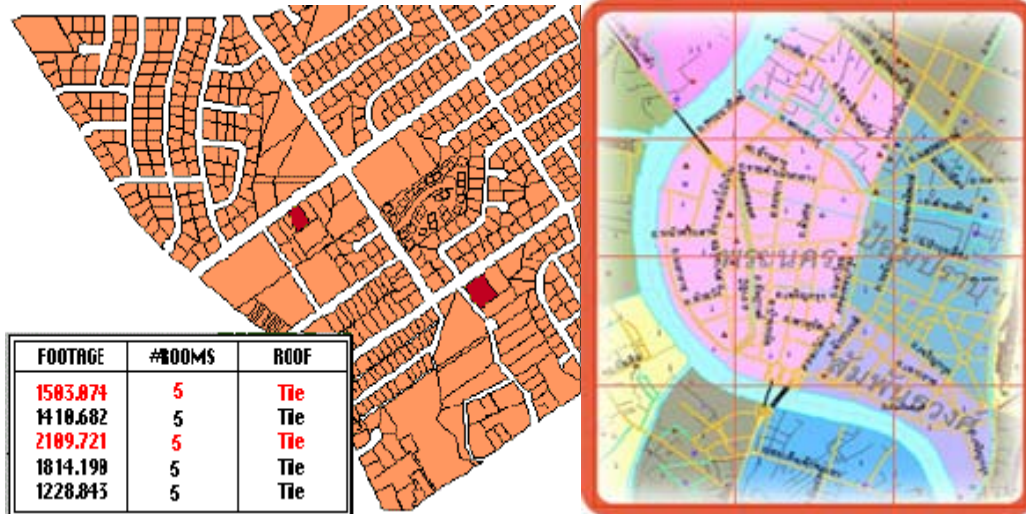
- City and Regional Planning
- Education in Geography
- Environmental Planning and Management
- Sustainable Global Development
- GIS and Spatial Analysis
- General Geography
- Meteorology and Climatology

Geography Minors are available in:

- *General Geography* -- Geog 100, 101, 110, and one techniques course (chosen from Geog 300, 317, 319, 391, 415, 417, 419, and 452), and 9 hours of electives chosen in consultation with your advisor.
- *City and Regional Planning (Management Track)* -- Geog 240, 484, and one techniques course (chosen from Geog 300, 317, 319, 391, 415, 417, 419, and 452), six hours chosen from Geog 423, 434, 474, 480, 488, and 495, and 6 hours of electives chosen in consultation with your advisor.
- *City and Regional Planning (GIS Analysis)* -- Geog 240, 484, and 317; six hours chosen from Geog 417, 474, 488, and 495; and 6 hours of electives (chosen from Geog 319, 419, 423, and 480 in consultation with your advisor).

Welcome to the Geography Program at Western Kentucky University

The Geographic Information Systems (GIS) Program



The 12-Hour GIS Certificate Program

| | | | |
|-------------------|-----------------------------|---------|-------------|
| Geography 317 | Introduction to GIS | 3 hours | Fall/Spring |
| Geography 319 | Cartographic Design for GIS | 3 hours | Fall/Spring |
| Geography 417 (G) | GIS Analysis & Modeling | 3 hours | Fall |
| Geography 419 (G) | GIS Application Development | 3 hours | Spring |

Workshop courses in GIS also are offered during the Summer period.

*Students completing the 12-hour Program receive a GIS Certificate.

** Students completing the 12-hour GIS Certificate Program are strongly encouraged to take: Math 118 (or Math 116 and 117), CS 240, and AMS 202 as supporting courses for GIS.

For Students completing a BS Degree in Geography:

The GIS and Spatial Analysis Track

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| Core Requirements (100, 101, 110, 300, 319, 391) | = | 18 hours |
| Track Requirements (317, 415, 417, 419) | = | 12 hours |
| Electives (any upper division course) | = | 3 hours |

Additional Requirements:

Math 118 (or Math 116 and 117), CS 240, and AMS 202

Welcome to the Geography and Geology Department at Western Kentucky University *Geoscience -- Intelligent Solutions for Sustainable Societies*

Geoscience is an exciting field and one that offers tremendous opportunities in a variety of areas. Many practicing geoscientists work on some of society's most pressing environmental and development issues. Others seek to make their mark by exploring the complex workings of their immediate surroundings using such analytical tools as GIS. Whichever the case, geoscientists help to identify and solve human-environment problems using a variety of spatial techniques and methodologies. For those who share similar dreams, there are ample opportunities in the early twenty-first century in the field of geoscience.

Geoscience's three main areas – human, physical, and technical – all have experienced expansion in recent years. The specializations supported by the Department seek to pinpoint areas of recent employment growth and offer career guidance to those wishing to become practicing geoscientists. An M.S. degree in Geoscience can open the door to myriad challenging and rewarding careers. Depending on the specialty, a geoscience graduate can move into a government or private sector job that will utilize her/his skills. Perhaps the greatest range of opportunities for those with a geoscience degree are in the GIS (computer mapping), climatology, teaching, and environmental fields. It is important to take advanced courses that provide training in techniques and applications in those areas in order to move quickly into the workforce. Quite typically today, employers will provide some additional training to new workers. Taking advantage of those opportunities, along with good job performance, can enable rapid advancement with an M.S. degree in Geoscience.

One common trait of geoscientists is that they are curious about what lies around the corner. This impulse to explore, analyze, and solve is extremely important for job seekers. Stay alert to the obvious opportunities, but also those that might not be apparent. Look over the next ridge; do not be content with the limited options visible from where you sit. Job seekers must, like good field geoscientists, get up from their computers and get their boots dirty searching out the best vantage point, and from there examine every opportunity with great care. There are many geoscientists who have blazed the employment trail and now work in diverse environments across the country, and beyond. Most have found satisfaction pursuing their youthful dreams. We hope you too will fulfill your dreams and discover the rewards of geoscience.

Geoscience Specializations are available in:

- City and Regional Planning
- Education in Geoscience
- Environmental Planning and Management
- Sustainable Global Development
- GIS and Spatial Analysis
- General Geoscience
- Meteorology and Climatology
- General Geology

All Geoscience Students must take a minimum of 30 hours of graduate-level courses:

- *Geoscience Core Courses* -- Geo 500, 502, and 520 (12 hours). No prerequisites are needed for Geo 500 or 502, but Geo 520 requires a Spatial Statistics course (Geo 391) and an introductory GIS course as prerequisites.
- *Geoscience Electives* -- Any 12 hours in the specialization (6 hours may be taken in another academic department in consultation with your advisor and the Department Head).
- *Geoscience Capstone Project* -- Six hours. Students may choose one of two options:
Option A -- A traditional thesis (6 hours) based on original research.
Option B -- A research paper (6 hours) of publishable quality based on original research.

Both project options require a 4-person faculty committee and MUST draw from original research.

ALL Geoscience students must complete and pass: (a) a comprehensive written exam based on their coursework, (b) a public presentation of the results of their original research, and (c) an oral defense of their research and coursework. In addition, the Graduate School requires that all graduate students complete the requirements for a research tool course. Please consult with your advisor or the Department Head for more details of this requirement.



Full details about the MS Geoscience program are available at the Department's website:
<http://www.wku.edu/geoweb/gradcrse/gradprogram.htm>

The Graduate Faculty and their research specializations are:

Dr. John All -- Environment, Policy

Dr. Stephen Kenworthy -- Ecology, Streams

Dr. Katie Algeo -- GIS, Culture, Society

Dr. Ken Kuehn -- Coal Geology

Dr. Nicholas Crawford -- Karst, Hydrology

Dr. Rezaul Mahmood -- Climate

Dr. Richard Deal -- Political, Development

Dr. Mike May -- Environmental Geology

Dr. Stuart Foster -- Spatial Statistics, Climate

Dr. Albert Petersen -- Kentucky, Society

Dr. Chris Groves -- Hydrology, Karst

Dr. Fred Siewers -- Sedimentology

Dr. David Keeling -- Development, Society

Dr. Michael Trapasso -- Meteorology

Dr. Andrew Wulff -- Minerology