Geography

MAJOR
MINOR

CONCENTRATIONS IN:
• global systems analysis
• mapping & geospatial sciences

See related programs:
• earth science
• environmental analysis and planning

Professors: Precht, Saku
Associate Professors: Allen, Ramspott, Russo (Chair)
Assistant Professors: Bogart, Flood, Wetherholt
Lecturers: T. Edwards, A. Lewis

• You may elect to complete the major without specialized concentration or choose a concentration in global systems analysis or mapping science.
• An internship is optional.

Program Requirements

| Requirements for Major in Geography |  
|-----------------------------------|---
| (without specialized concentration) |  
| 1. Required Core Courses: (20 hours) |  
| GEOG 103 Physical Geography *(GEP Group C)* |  
| GEOG 104 Human Geography *(GEP Group D or F)* |  
| or GEOG 110 World Regional Geography: Cultural Diversity *(GEP Group D or F)* |  
| GEOG 275 Fundamentals of Geographic Data Handling *(Tech. Fluency)* |  
| GEOG 310 Fundamentals of Cartography |  
| GEOG 380 Research Methods in Geography |  
| GEOG 480 The Geographic Perspective |  
| GEOG 481 Geography Capstone |  
| 2. Advanced Physical Geography: (3-4 hours) |  
| GEOG 335 Oceanography |  
| GEOG 340 Soils: Genesis, Nature and Characterization |  
| GEOG 405 Physical Climatology |  
| GEOG 430 Surface Water Hydrology |  
| GEOG 431 Quaternary Environments |  
| GEOG 445 Biogeography |  
| 3. Advanced Human Geography: (3 hours) |  
| GEOG 300 Economic Geography |  
| GEOG 324 Urban Geography |  
| GEOG 407 Political Geography |  
| GEOG 410 Locational Analysis |  
| GEOG 425 Geography of Transportation |  
| GEOG 427 Geography of Languages & Religions *(GEP Group F)* |  
| GEOG 452 Rural Geography |  
| GEOG 454 Geography of Tourism |  
| 4. Advanced Regional Geography: (3 hours) |  
| Select from: |  
| GEOG 301 Geography of North America |  
| GEOG 302 Geography of Maryland |  
| GEOG 325 Geography of Latin America |  
| GEOG 400 Geography of Asia |  
| GEOG 401 Geography of Europe |  
| GEOG 402 Geography of Northern Eurasia |  
| GEOG 403 Geography of Sub-Saharan Africa |  
| GEOG 404 Geography of the Middle East and Central Asia |  
| 5. Geographic Techniques: (3 hours) |  
| Select from: |  
| GEOG 317 Principles of Geographic Information Systems |  
| GEOG 413 Remote Sensing - Image Interpretation |  
| GEOG 420 Topics in the Mapping and Geospatial Sciences |  
| GEOG 433 Surveying and Field Techniques |  
| 6. Human-Earth Relationships: (3 hours) |  
| Select from: |  
| GEOG 360 Food Systems |  

Requirements for Major in Geography (without specialized concentration)

1. Required Core Courses: (20 hours)
   - GEOG 103 Physical Geography *(GEP Group C)*
   - GEOG 104 Human Geography *(GEP Group D or F)*
   - or GEOG 110 World Regional Geography: Cultural Diversity *(GEP Group D or F)*

2. Advanced Physical Geography: (3-4 hours)
   - GEOG 335 Oceanography
   - GEOG 340 Soils: Genesis, Nature and Characterization
   - GEOG 405 Physical Climatology
   - GEOG 430 Surface Water Hydrology
   - GEOG 431 Quaternary Environments
   - GEOG 445 Biogeography

3. Advanced Human Geography: (3 hours)
   - GEOG 300 Economic Geography
   - GEOG 324 Urban Geography
   - GEOG 407 Political Geography
   - GEOG 410 Locational Analysis
   - GEOG 425 Geography of Transportation
   - GEOG 427 Geography of Languages & Religions *(GEP Group F)*

4. Advanced Regional Geography: (3 hours)
   - Select from:
     - GEOG 301 Geography of North America
     - GEOG 302 Geography of Maryland
     - GEOG 325 Geography of Latin America
     - GEOG 400 Geography of Asia
     - GEOG 401 Geography of Europe
     - GEOG 402 Geography of Northern Eurasia
     - GEOG 403 Geography of Sub-Saharan Africa
     - GEOG 404 Geography of the Middle East and Central Asia

5. Geographic Techniques: (3 hours)
   - Select from:
     - GEOG 317 Principles of Geographic Information Systems
     - GEOG 413 Remote Sensing - Image Interpretation
     - GEOG 420 Topics in the Mapping and Geospatial Sciences
     - GEOG 433 Surveying and Field Techniques

6. Human-Earth Relationships: (3 hours)
   - Select from:
     - GEOG 360 Food Systems
GEOG 406  Mgmt. & Conservation of Natural Resources
GEOG 450  Urban Planning
GEOG 460  Natural Hazards in the Physical Environment
GEOG 472  Environmental Planning
GEOG 473  Environmental Law

7. Electives  (6-8 hours)
Any two additional geography courses at or above the 200-level or equivalent except GEOG 495.

8. Required Courses in Other Departments:  
(3 hours)
MATH 109  Elements of Applied Probability & Statistics  
(Core Skill 3)
*Three or more credits earned in GEOG 499 Research in Geography, may count as one course.

Requirements for Minor in Geography

1. Required Core Courses:  (7 hours)
GEOG 103  Physical Geography (GEP Group C)
GEOG 104  Human Geography (GEP Group D or F)
    or GEOG 110  World Regional Geography: Cultural Diversity (GEP Group D or F)

2. Electives  (15 hours)
Select any from GEOG courses at or above the 200-level or equivalent except GEOG 492 and 495.

Requirements for Global Systems Analysis Concentration

1. Required Core Courses:  (20 hours)
GEOG 103  Physical Geography (GEP Group C)
GEOG 104  Human Geography (GEP Group D or F)
    or GEOG 110  World Regional Geography: Cultural Diversity (GEP Group F)
GEOG 275  Fundamentals of Geographic Data Handling (Tech. Fluency)
GEOG 310  Fundamentals of Cartography
GEOG 380  Research Methods in Geography
GEOG 480  The Geographic Perspective
GEOG 481  Geography Capstone

2. Specialized Advanced Courses:  (15 hours)
Group I  Human Geography:  (9 hours)
GEOG 300  Economic Geography
GEOG 407  Political Geography
Select one from:
GEOG 222  Introduction to Cities
GEOG 410  Locational Analysis
GEOG 425  Geography of Transportation
GEOG 427  Geography of Languages and Religions
GEOG 429  Geography of Latin America
GEOG 430  Geography of Asia
GEOG 431  Geography of Europe
GEOG 432  Geography of Northern Eurasia
GEOG 433  Geography of Sub-Saharan Africa
GEOG 434  Geography of the Middle East and Central Asia

Group II  Regional Geography:  (6 hours)
Select two from:
GEOG 320  Geography of Latin America
GEOG 400  Geography of Asia
GEOG 401  Geography of Europe
GEOG 402  Geography of Northern Eurasia
GEOG 403  Geography of Sub-Saharan Africa
GEOG 404  Geography of the Middle East and Central Asia
3. Complementary Advanced Courses:
(3-4 hours)
Select one course from one of the three groups:

**Group I Physical Geography: (0-4 hours)**
- GEOG 335 Oceanography
- GEOG 340 Soils: Genesis, Nature and Characterization
- GEOG 405 Physical Climatology
- GEOG 430 Surface Water Hydrology
- GEOG 431 Quaternary Environments
- GEOG 445 Biogeography

**Group II Geographic Techniques: (0-3 hours)**
- GEOG 317 Principles of Geographic Information Science (GIS)
- GEOG 413 Remote Sensing - Image Interpretation
- GEOG 420 Topics in the Mapping and Geospatial Sciences
- GEOG 433 Surveying and Field Techniques

**Group III Human-Earth Relationships: (0-3 hours)**
- GEOG 360 Food Systems
- GEOG 406 Management and Conservation of Natural Resources
- GEOG 450 Urban Planning
- GEOG 460 Natural Hazards in the Physical Environment
- GEOG 472 Environmental Planning
- GEOG 473 Environmental Law

4. Required Courses in Other Departments:*
(9 hours)
- MATH 109 Elements of Applied Probability and Statistics (Core Skill 3)
- and select two from:
  - ECON 309 Comparative Economic Systems
  - ECON 400 International Trade
  - ECON 401 International Finance
  - ECON 405 Econ. Growth & Develop.: Developing Economies
  - HIST 304 History of Latin America
  - HIST 341 Modern & Contemporary Middle East
  - HIST 353 Contemporary Africa
  - HIST 376 Modern Europe
  - HIST 404 Revolutionary and Soviet Russia
  - HIST 409 World Environmental History
  - HIST 437 History of Korea
  - HIST 450 History of Mexico
  - HIST 455 Latin American Revolutions
  - HIST 457 India
  - HIST 458 History of China
  - HIST 459 History of Japan
  - PHIL 311 Asian and African Philosophy (GEP Group F)
  - PHIL 315 Philosophy and the Environment
  - POSC 330 Politics of Africa
  - POSC 331 Politics of Latin America
  - POSC 332 Politics of the Middle East
  - POSC 333 Politics of Europe
  - POSC 341 International Organization
  - POSC 431 Russian Politics
  - POSC 435 Model Organization of American States
  - POSC 441 International Relations: Theory and Practice

*Foreign language courses at the 200 level or higher may fulfill this requirement.

* some courses may have prerequisites

Requirements for Mapping and Geospatial Sciences Concentration

1. Required Core Courses: (20 hours)
- GEOG 103 Physical Geography (GEP Group C)
- GEOG 104 Human Geography (GEP Group D or F)
- or GEOG 110 World Regional Geography: Cultural Diversity (GEP Group D or F)
- GEOG 275 Fundamentals of Geographic Data Handling (Tech. Fluency)
- GEOG 310 Fundamentals of Cartography
- GEOG 330 Research Methods in Geography
- GEOG 480 The Geographic Perspective
- GEOG 481 Geography Capstone

2. Specialized Advanced Courses:

**Geographic Techniques: (12 hours)**
- GEOG 317 Principles of Geographic Information Science (GIS)
- GEOG 413 Remote Sensing - Image Interpretation
- GEOG 420 Topics in Mapping and Geospatial Sciences
- GEOG 433 Surveying and Field Techniques

3. Complementary Advanced Courses:
(9-10 hours)
Select one course from three of the four groups:

**Group I Physical Geography: (0-4 hours)**
- GEOG 335 Oceanography
- GEOG 340 Soils: Genesis, Nature and Characterization
- GEOG 405 Physical Climatology
- GEOG 430 Surface Water Hydrology
- GEOG 431 Quaternary Environments
- GEOG 445 Biogeography

**Group II Human Geography: (0-3 hours)**
- GEOG 222 Introduction to Cities
- GEOG 300 Economic Geography
- GEOG 324 Urban Geography
- GEOG 407 Political Geography
- GEOG 410 Locational Analysis
- GEOG 425 Geography of Transportation
- GEOG 427 Geography of Languages and Religions (GEP Group F)

**Group III Regional Geography: (0-3 hours)**
- GEOG 210 Geography of North America
- GEOG 320 Geography of Maryland
- GEOG 320 Geography of Latin America
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GEOG 400 Geography of Asia
GEOG 401 Geography of Europe
GEOG 402 Geography of Northern Eurasia
GEOG 403 Geography of Sub-Saharan Africa
GEOG 404 Geography of the Middle East and Central Asia

Group IV Human-Earth Relationships:
(0-3 hours)
GEOG 360 Food Systems
GEOG 406 Management and Conservation of Natural Resources
GEOG 450 Urban Planning
GEOG 460 Natural Hazards in the Physical Environment
GEOG 472 Environmental Planning
GEOG 473 Environmental Law

4. Required Courses in Other Departments:*
(12 hours)
MATH 109 Elements of Applied Probability & Statistics (Core Skill 3)
MATH 119 College Algebra (Core Skill 3)
or MATH 220 Calculus for Applications I
or any MATH level III class (3 hours)
COSC 130 Introduction to Programming (3 hours)
Select one additional COSC or ITEC course not to include COSC 101 or ITEC 312 (3-4 hours).

5. Recommendations:*
Students are encouraged to select additional course work depending on their specific area of interest such as:
MATH 220 & 221 Calculus I and II
COSC 240 Computer Science I (4 hours)
COSC 241 Computer Science II (4 hours)
COSC 330 Web Design and Development (3 hours)
ITEC 315 Programming (3 hours)
ITEC 345 Database Systems I (3 hours)

*Some of these courses may have prerequisites.

If you are interested in teaching geography ...

- Students wishing to teach geography at the secondary level (middle and high school) must first obtain a degree in geography and then complete the Master of Arts in Teaching (MAT) program in the College of Education. Refer to the Graduate Catalog for information on the MAT program and the application process.