CARTOGRAPHY AND GEOGRAPHIC INFORMATION SYSTEMS, B.S.

REQUIREMENTS

UNIVERSITY GENERAL EDUCATION REQUIREMENTS

All undergraduate students at the University of Wisconsin–Madison are required to fulfill a minimum set of common university general education requirements to ensure that every graduate acquires the essential core of an undergraduate education. This core establishes a foundation for living a productive life, being a citizen of the world, appreciating aesthetic values, and engaging in lifelong learning in a continually changing world. Various schools and colleges will have requirements in addition to the requirements listed below. Consult your advisor for assistance, as needed. For additional information, see the university Undergraduate General Education Requirements (http://guide.wisc.edu/undergraduate/#requirementsforundergraduatestudytext) section of the Guide.

General Education

• Breadth—Humanities/Literature/Arts: 6 credits
• Breadth—Natural Science: 4 to 6 credits, consisting of one 4- or 5-credit course with a laboratory component; or two courses providing a total of 6 credits
• Breadth—Social Studies: 3 credits
• Communication Part A & Part B *
• Ethnic Studies *
• Quantitative Reasoning Part A & Part B *

* The mortarboard symbol appears before the title of any course that fulfills one of the Communication Part A or Part B, Ethnic Studies, or Quantitative Reasoning Part A or Part B requirements.

L&S Breadth

Complete:
• 12 credits of Humanities, which must include at least 6 credits of Literature; and
• 12 credits of Social Science; and
• 12 credits of Natural Science, which must include 6 credits of Biological Science and 6 credits of Physical Science.

Liberal Arts and Science Coursework

Complete at least 108 credits.

Depth of Intermediate/Advanced Coursework

Complete at least 60 credits at the Intermediate or Advanced level.

Major

Declare and complete at least one major.

Total Credits

Complete at least 120 credits.

UW-Madison Experience

Complete both:
• 30 credits in residence, overall, and
• 30 credits in residence after the 86th credit.

Quality of Work

• 2.000 in all coursework at UW–Madison
• 2.000 in Intermediate/Advanced level coursework at UW–Madison

NON–L&S STUDENTS PURSUING AN L&S MAJOR

Non–L&S students who have permission from their school/college to pursue an additional major within L&S only need to fulfill the major requirements. They do not need to complete the L&S Degree Requirements above.

REQUIREMENTS FOR THE MAJOR

BREADTH

3 courses, 1 each from these areas:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>GEOG 101</td>
<td>Introduction to Human Geography</td>
<td>3</td>
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<tr>
<td>GEOG 104</td>
<td>Introduction to Human Geography</td>
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<tr>
<td>GEOG 301</td>
<td>Revolutions and Social Change</td>
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<tr>
<td>GEOG 302</td>
<td>Economic Geography: Locational Behavior</td>
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<td>GEOG/URB R PL 305</td>
<td>Introduction to the City</td>
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<td>GEOG 307</td>
<td>International Migration, Health, and Human Rights</td>
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<tr>
<td>GEOG/CHICLA/GEN&amp;WS 308</td>
<td>Latinx Feminisms: Women’s Lives, Work, and Activism</td>
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<tr>
<td>GEOG/INTL ST 311</td>
<td>The Global Game: Soccer, Politics, and Identity</td>
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<tr>
<td>GEOG/INTL ST 315</td>
<td>Universal Basic Income: The Politics Behind a Global Movement</td>
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<tr>
<td>GEOG 318</td>
<td>Introduction to Geopolitics</td>
<td></td>
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<tr>
<td>GEOG 340</td>
<td>World Regions in Global Context</td>
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<tr>
<td>GEOG 342</td>
<td>Geography of Wisconsin</td>
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<td>GEOG 355</td>
<td>Africa, South of the Sahara</td>
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<tr>
<td>GEOG 358</td>
<td>Human Geography of Southeast Asia</td>
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</table>
Critical Indigenous Ecological Knowledges

The Making of the American Landscape

Space and Place: A Geography of Experience

Researching the City: Qualitative Strategies

Feminist Geography: Theoretical Approaches

Urban Spatial Patterns and Theories

Waste Geographies: Politics, People, and Infrastructures

Economic Geography

Critical Social Theory

Power, Place, Identity

History of Geographic Thought

Global Environmental Issues

People, Land and Food: Comparative Study of Agriculture Systems

Global Warming: Science and Impacts

Nature, Power and Society

Environmental Biogeography

Environmental Conservation

World Regions in Global Context

Changing Landscapes of the American West

Managing Nature in Native North America

Australia: Environment and Society

Critical Indigenous Ecological Knowledges

People, Wildlife and Landscapes

US Environmental Policy and Regulation

American Environmental History

The Making of the American Landscape

Human Transformations of Earth Surface Processes

Environmental Governance: Markets, States and Nature

Culture and Environment

The Humid Tropics: Ecology, Subsistence, and Development

Development and Environment in Southeast Asia

Introduction to the Earth System

Physical Systems of the Environment

Geomorphology

Polar Regions and Their Importance in the Global Environment

Landforms and Landscapes of North America

Global Warming: Science and Impacts

Climatic Environments of the Past

Environmental Biogeography

Geography of Wisconsin

Changing Landscapes of the American West

Glacial and Pleistocene Geology

Advanced Paleocology: Species Responses to Past Environmental Change

Soil Geomorphology

Human Transformations of Earth Surface Processes

Past Climates and Climatic Change

Total Credits 9

SKILLS, TECHNIQUES & METHODOLOGY

Code  Title  Credits
GEOG/ENVIR ST 139  Global Environmental Issues  3
GEOG/ENVIR ST 309  People, Land and Food: Comparative Study of Agriculture Systems  3
GEOG/ATM OCN/ENVIR ST 332  Global Warming: Science and Impacts  3
GEOG/ENVIR ST 337  Nature, Power and Society  3
GEOG/BOTANY 338  Environmental Biogeography  3
GEOG/ENVIR ST 339  Environmental Conservation  3
GEOG 340  World Regions in Global Context  3
GEOG 344  Changing Landscapes of the American West  3
GEOG/AMER IND/ENVIR ST 345  Managing Nature in Native North America  3
GEOG 359  Australia: Environment and Society  3
GEOG/AMER IND 410  Critical Indigenous Ecological Knowledges  3
GEOG/C&SOC/ENVIR ST 434  People, Wildlife and Landscapes  3
GEOG/ENVIR ST 439  US Environmental Policy and Regulation  3
GEOG/ENVIR ST/ HISTORY 460  American Environmental History  3
GEOG/ENVIR ST/ HISTORY 469  The Making of the American Landscape  3
GEOG/SOIL SCI 526  Human Transformations of Earth Surface Processes  3
GEOG/ENVIR ST 534  Environmental Governance: Markets, States and Nature  3
GEOG/ENVIR ST 537  Culture and Environment  3
GEOG 538  The Humid Tropics: Ecology, Subsistence, and Development  3
GEOG/ENVIR ST 557  Development and Environment in Southeast Asia  3
GEOG/ENVIR ST 120  Introduction to the Earth System  3
GEOG/ENVIR ST 127  Physical Systems of the Environment  3
GEOG/GEOSCI 320  Geomorphology  3
GEOG/ATM OCN/ENVIR ST 322  Polar Regions and Their Importance in the Global Environment  3
GEOG 329  Landforms and Landscapes of North America  3
GEOG/ATM OCN/ENVIR ST 332  Global Warming: Science and Impacts  3
GEOG/ATM OCN/ENVIR ST/GEOSCI 335  Climatic Environments of the Past  3
GEOG/BOTANY 338  Environmental Biogeography  3
GEOG 342  Geography of Wisconsin  3
GEOG 344  Changing Landscapes of the American West  3
GEOG/GEOSCI 420  Glacial and Pleistocene Geology  3
GEOG 523  Advanced Paleocology: Species Responses to Past Environmental Change  3
GEOG/SOIL SCI 525  Soil Geomorphology  3
GEOG/SOIL SCI 526  Human Transformations of Earth Surface Processes  3
GEOG/ATM OCN/ENVIR ST 528  Past Climates and Climatic Change  3

Total Credits 9
HONORS IN THE CARTOGRAPHY AND GEOGRAPHIC INFORMATION SYSTEMS MAJOR REQUIREMENTS

To earn Honors in the Major in Cartography and GIS, students must satisfy both the requirements for the major (above) and the following additional requirements:

- Earn a 3.300 overall university GPA
- Earn a 3.300 GPA for all GEOG courses, and all courses accepted in the major
- Complete GEOG 578: GIS Applications with a grade of B or better
- Complete at least one advanced-level course OR 6 credits of honors credits in the major at the 300 level or above
- Complete a two-semester Senior Honors Thesis in GEOG 681 Senior Honors Thesis and GEOG 682 Senior Honors Thesis, a piece of original research composition, for a total of 6 credits.

UNIVERSITY DEGREE REQUIREMENTS

To receive a bachelor's degree from UW–Madison, students must earn a minimum of 120 degree credits. The requirements for some programs may exceed 120 degree credits. Students should consult with their college or department advisor for information on specific credit requirements.

Residency
Degree candidates are required to earn a minimum of 30 credits in residence at UW–Madison. "In residence" means on the UW–Madison campus with an undergraduate degree classification. "In residence" credit also includes UW–Madison courses offered in distance or online formats and credits earned in UW–Madison Study Abroad/Study Away programs.

Quality of Work
Undergraduate students must maintain the minimum grade point average specified by the school, college, or academic program to remain in good academic standing. Students whose academic performance drops below these minimum thresholds will be placed on academic probation.

RESIDENCE AND QUALITY OF WORK

- 2.000 GPA in GEOG and major courses
- 2.000 GPA on 15 upper-level credits, taken in residence 2
- 15 credits in GEOG, taken on the UW–Madison campus

2

GEOG courses designated Intermediate/Advanced are upper level in this major.

HONORS IN THE MAJOR

Students may declare Honors in the Cartography and GIS Major in consultation with the Geography undergraduate advisor.