# Twin Cities Campus Geography B.A. Geography, Environment, Society

### **College of Liberal Arts**

- Program Type: Baccalaureate
- Requirements for this program are current for Spring 2020
- Required credits to graduate with this degree: 120
- Required credits within the major: 32 to 39
- Degree: Bachelor of Arts

Geography focuses on the integrated study of our increasingly connected world, shaped by the interactions between cultural and biophysical forces. The major synthesizes approaches widely used in the humanities, social, biophysical, and digital information sciences. Geography is uniquely poised to investigate combinations of social, political, economic, and ecological processes - especially the role of space, place, and geographic networks in shaping these processes and interactions. Geography attempts to interpret not just these phenomena, but also, how they are perceived and what meanings they hold. Such an integrative perspective on global, regional, and local change provides students with a singular understanding of today's complex world.

Depending on their specific interests, geographers employ one or more research techniques, including field observation, legal and archival analysis, interviewing, textual analysis, ethnography, mapping, spatial statistics, and computer and econometric modeling. Many geographers are interested in the intersections of science, technology, and information, such as the application and evaluation of geographic information science on decision-making. All geography undergraduates are trained to be interdisciplinary to be better prepared to address some of the worlds most pressing problems including climate change, inequity, population growth, natural resource use and perception, and economic challenges.

Students earning a degree in geography are well-prepared to pursue a wide range of career opportunities due to a strong foundation of interdisciplinary education and training. Students in geography are required to engage in course work in the three primary subfields of the discipline: cultural patterns, environmental processes and global change, and geographic information and mapping sciences. The geography program emphasizes critical thinking and writing skills, fosters the development of effective teamwork skills, and focuses on creative approaches to problem-solving.

Geographers have a broad range of career opportunities. Federal, regional, and local governmental agencies seek geographers for city and regional planning, natural resource management, law enforcement, and transportation positions. Private industry consulting, environmental and marketing firms, the non-profit sector, and local, national, and transnational non-governmental organizations seek geographic skills including geographic information sciences and spatial analytical techniques. Many Geography undergraduate majors obtain careers in education and many go on to graduate school.

The BA degree offers a challenging and solid foundation in the theory and practice of geography, with the flexibility needed to specialize in particular areas of student interest. Geography undergraduates are encouraged to tailor individual programs to meet their interests and goals.

# **Program Delivery**

This program is available:

• via classroom (the majority of instruction is face-to-face)

## Admission Requirements

For information about University of Minnesota admission requirements, visit the Office of Admissions website.

## **General Requirements**

All students are required to complete general University and college requirements including writing and liberal education courses. For more information about University-wide requirements, see the liberal education requirements. Required courses for the major or minor in which a student receives a D grade (with or without plus or minus) do not count toward the major or minor (including transfer courses).

#### **Program Requirements**

Students are required to take 4 semester(s) of any second language.

CLA BA degrees require 18 upper division (3xxx-level or higher) credits outside the major designator. These credits must be taken in designators different from the major designator and cannot include courses that are cross-listed with the major designator. The major designator for the Geography BA is GEOG.

Some GEOG 5xxx-level courses are graduate-level courses and will require departmental consent.

A given course may only count towards one major requirement.

See major advisor for final approval of individual program.

Students who double major and choose to complete the capstone requirement in their other major may waive the Geography BA capstone, but are still responsible for taking a minimum of 32 total credits within the major.

At least 14 upper-division credits in the major must be taken at the University of Minnesota - Twin Cities campus.

Students may earn up to one undergraduate degree in the geography program: a BA, a BS, or a minor. Students in the Geography BA or minor may combine those programs with a major or minor in Urban Studies, or the other departmental minors, Public Health and Geographic Information Science.

All CLA first-year students must complete the First-Year Experience course sequence.

#### **Breadth Requirement**

Breadth courses expose students to geography sub-fields. Students may count ONLY one 1xxx course toward the breadth requirement.

#### **Human Geography**

Take exactly 2 course(s) totaling 6 or more credit(s) from the following:

- •GEOG 1301W Our Globalizing World [SOCS, GP, WI] (3.0 cr)
- •GEOG 3101 {Inactive}[SOCS, TS] (4.0 cr)
- •GEOG 3371W Cities, Citizens, and Communities [DSJ, WI] (3.0 cr)
- •GEOG 3373 Changing Form of the City [HIS, GP] (3.0 cr)
- •GEOG 1973 Geography of the Twin Cities [SOCS] (3.0 cr)
- or GEOG 3973 Geography of the Twin Cities [SOCS] (3.0 cr)
- •GEOG 3331 Geography of the World Economy [SOCS, GP] (3.0 cr)
- or GLOS 3231 Geography of the World Economy [SOCS, GP] (3.0 cr)
- •GEOG 3361W {Inactive}[WI] (3.0 cr)
- or BSE 3361W {Inactive}[WI] (3.0 cr)
- •GEOG 3379 Environment and Development in the Third World [SOCS, ENV] (3.0 cr)
- or GLOS 3303 {Inactive}[SOCS, ENV] (3.0 cr)
- •GEOG 3381W Population in an Interacting World [SOCS, GP, WI] (3.0 cr)
- or GLOS 3701W {Inactive}[SOCS, GP, WI] (3.0 cr)

#### **Environmental Geography**

Take exactly 1 course(s) totaling 3 or more credit(s) from the following:

- •GEOG 3401W Geography of Environmental Systems and Global Change [ENV, WI] (3.0 cr)
- •GEOG 3423 Urban Climatology (3.0 cr)
- •GEOG 3431 Plant and Animal Geography (3.0 cr)
- •GEOG 3839 Introduction to Dendrochronology (4.0 cr)
- •GEOG 1403 Biogeography of the Global Garden [BIOL, ENV] (4.0 cr)
- or GEOG 1403H Honors: Biogeography of the Global Garden [BIOL, ENV] (4.0 cr)
- •GEOG 1425 Introduction to Weather and Climate [PHYS, ENV] (4.0 cr)
- or ESPM 1425 Introduction to Weather and Climate [PHYS, ENV] (4.0 cr)

#### **Geographic Information Science**

Take exactly 1 course(s) totaling 3 or more credit(s) from the following:

- •GEOG 1502 Mapping Our World [TS, SOCS] (3.0 cr)
- •GEOG 3521 {Inactive}[TS] (3.0 cr)
- •GEOG 3523 {Inactive}(3.0 cr)
- •GEOG 3541 Principles of Geocomputing (3.0 cr)
- •GEOG 5563 Advanced Geographic Information Science (3.0 cr)
- •GEOG 5564 Urban Geographic Information Science and Analysis (3.0 cr)
- •GEOG 3511 Principles of Cartography (4.0 cr)
- •GEOG 3531 Numerical Spatial Analysis (4.0 cr)
- or GEOG 5531 Numerical Spatial Analysis (4.0 cr)
- •GEOG 3561 Principles of Geographic Information Science (4.0 cr)
- or GEOG 5561 Principles of Geographic Information Science (4.0 cr)

#### Ways of Knowing

The Ways of Knowing requirement provides a theory-intensive overview of the discipline. Students are encouraged to take 3-5 of their breadth courses and electives before taking their Ways of Knowing course.

Take exactly 1 course(s) totaling 3 - 4 credit(s) from the following:

•GEOG 4001 - Modes of Geographic Inquiry (3.0 cr)

•GEOG 4002W - Environmental Thought and Practice [WI] (3.0 cr)

#### **Electives**

Students should work with the departmental advisor to develop a coherent set of electives that meet specific educational goals. Courses counting as electives must be worth three or four credits each. In some circumstances, students may substitute 2 two-credit courses for one of the electives. Students may petition to take GIS courses when prerequisites have been fulfilled. Note that the following URBS courses may not count as electives: 1001W, 3001W, 3201, 3202, 3500, & 3955W.

Take 5 or more course(s) totaling 15 or more credit(s) from the following:

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•GEOG 3101 {Inactive}[SOCS, TS] (4.0 cr)
•GEOG 3111 - Geography of Minnesota (3.0 cr)
•GEOG 3211 {Inactive}(3.0 cr)
•GEOG 3371W - Cities, Citizens, and Communities [DSJ, WI] (3.0 cr)
•GEOG 3373 - Changing Form of the City [HIS, GP] (3.0 cr)
•GEOG 3376 - Political Ecology [ENV] (3.0 cr)
•GEOG 3377 - Music in the City [DSJ, AH] (3.0 cr)
•GEOG 3388 - Going Places: Geographies of Travel and Tourism [CIV] (3.0 cr)
•GEOG 3401W - Geography of Environmental Systems and Global Change [ENV, WI] (3.0 cr)
•GEOG 3411W - Geography of Health and Health Care [WI] (3.0 cr)
•GEOG 3423 - Urban Climatology (3.0 cr)
•GEOG 3431 - Plant and Animal Geography (3.0 cr)
•GEOG 3511 - Principles of Cartography (4.0 cr)
•GEOG 3521 {Inactive}[TS] (3.0 cr)
•GEOG 3523 {Inactive}(3.0 cr)
•GEOG 3541 - Principles of Geocomputing (3.0 cr)
•GEOG 3839 - Introduction to Dendrochronology (4.0 cr)
•GEOG 3900 - Topics in Geography (3.0 cr)
•GEOG 3973 - Geography of the Twin Cities [SOCS] (3.0 cr)
•GEOG 4001 - Modes of Geographic Inquiry (3.0 cr)
•GEOG 4002W - Environmental Thought and Practice [WI] (3.0 cr)
•GEOG 3362 {Inactive}(3.0 cr)
•GEOG 5393 {Inactive}(4.0 cr)
•GEOG 5426 - Climatic Variations (3.0 cr)
•GEOG 5563 - Advanced Geographic Information Science (3.0 cr)
•GEOG 5564 - Urban Geographic Information Science and Analysis (3.0 cr)
•GIS 5555 - Basic Spatial Analysis (3.0 cr)
•GIS 5571 - ArcGIS I (3.0 cr)
•GIS 5578 - GIS Programming (3.0 cr)
•URBS 3301W {Inactive}[WI] (3.0 cr)
•URBS 3751 - Understanding the Urban Environment [ENV] (3.0 cr)
•URBS 3771 - Fundamentals of Transit (3.0 cr)
•URBS 3861 - Financing Cities (3.0 cr)
•URBS 3871 - A Suburban World (3.0 cr)
•GEOG 3145 - The Islamic World [SOCS, GP] (3.0 cr)
or GLOS 3645 {Inactive}[SOCS, GP] (3.0 cr)
or RELS 3711 - The Islamic World [SOCS, GP] (3.0 cr)
•GEOG 3161 - Europe: A Geographic Perspective [GP] (3.0 cr)
or GLOS 3921 {Inactive}[GP] (3.0 cr)
•GEOG 3331 - Geography of the World Economy [SOCS, GP] (3.0 cr)
or GLOS 3231 - Geography of the World Economy [SOCS, GP] (3.0 cr)
•GEOG 3361W {Inactive}[WI] (3.0 cr)
or BSE 3361W {Inactive}[WI] (3.0 cr)
•GEOG 3374W - The City in Film [AH, WI] (4.0 cr)
or GEOG 3374V {Inactive}[AH, WI] (4.0 cr)
or GEOG 5374 {Inactive}(4.0 cr)
•GEOG 3379 - Environment and Development in the Third World [SOCS, ENV] (3.0 cr)
or GLOS 3303 {Inactive}[SOCS, ENV] (3.0 cr)
•GEOG 3381W - Population in an Interacting World [SOCS, GP, WI] (3.0 cr)
or GLOS 3701W {Inactive}[SOCS, GP, WI] (3.0 cr)
•GEOG 3531 - Numerical Spatial Analysis (4.0 cr)
or GEOG 5531 - Numerical Spatial Analysis (4.0 cr)
•GEOG 3561 - Principles of Geographic Information Science (4.0 cr)
or GEOG 5561 - Principles of Geographic Information Science (4.0 cr)
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#### Capstone

The Capstone is a process that may include data collection, reading, reflection, collaboration, and interpretation, and ends with writing a document. As the culmination of undergraduate training, each project develops from an interest or specialization deriving from

previous courses. Students who double major and choose to complete the capstone requirement in their other major may waive the geography BS capstone, and they do not need to replace the 2 credits.

Take exactly 1 course(s) totaling 2 - 4 credit(s) from the following:

#### Option 1: Seminar

Note: this option is not available every semester.

•GEOG 3985W {Inactive}[WI] (4.0 cr) or GEOG 3985V {Inactive}[WI] (4.0 cr)

#### Option 2: Directed Research

Note: this option requires instructor consent prior to the first day of classes.

•GEOG 3996 {Inactive}(3.0 - 4.0 cr)

or GEOG 3996H {Inactive}(3.0 - 4.0 cr)

#### Option 3: Supplemental Project

Note: this option requires instructor consent prior to the first day of classes and concurrent registration in a breadth or elective course.

•GEOG 3997 {Inactive}(2.0 cr) or GEOG 3997H {Inactive}(2.0 cr)

#### Upper Division Writing Intensive within the major

Students are required to take one upper division writing intensive course within the major. If that requirement has not been satisfied within the core major requirements, students must choose one course from the following list. Some of these courses may also fulfill other major requirements.

Take 0 - 1 course(s) from the following:

- •GEOG 3371W Cities, Citizens, and Communities [DSJ, WI] (3.0 cr)
- •GEOG 3411W Geography of Health and Health Care [WI] (3.0 cr)
- •GEOG 4002W Environmental Thought and Practice [WI] (3.0 cr)
- •URBS 3301W {Inactive}[WI] (3.0 cr)
  •URBS 3955W Senior Paper Seminar [WI] (2.0 cr)
- •GEOG 3361W {Inactive}[WI] (3.0 cr)
- or BSE 3361W {Inactive}[WI] (3.0 cr)
- •GEOG 3374W The City in Film [AH, WI] (4.0 cr)
- or GEOG 3374V {Inactive}[AH, WI] (4.0 cr)
- •GEOG 3381W Population in an Interacting World [SOCS, GP, WI] (3.0 cr)
- or GLOS 3701W {Inactive}[SOCS, GP, WI] (3.0 cr)
- •GEOG 3985W {Inactive}[WI] (4.0 cr)
- or GEOG 3985V {Inactive}[WI] (4.0 cr)