

GEOGRAPHY - BACHELOR OF ARTS (BA)

The Department of Geography offers a Bachelor of Arts degree in Geography. The degree emphasizes knowledge and awareness of:

- The unique contributions of the discipline to understanding the spatial components of problems and the diverse factors relating to human interaction with the environment.
- The spatial distributions of physical and human characteristics on the Earth surface, the general patterns these form and the processes that have created and are changing these patterns.
- The major themes of geographical analysis, including absolute and relative location; human and physical characteristics of place; human and environmental relations; movement of people, ideas and products; and regionalization.
- The general geographical principles of human-environment interaction, global change and human spatial organization.

Requirements

General Requirements

Students must complete the general requirements of the College of Arts and Sciences and the required courses below.

In addition to a standard degree in geography, the department offers transcribed concentrations in environment-society geography, geographic information science and human geography. Coursework required for each concentration is listed on the Concentration Areas tab.

Students must complete at least 37 and no more than 45 credit hours in geography with grades of C- or better (23 credit hours must be upper-division). No pass/fail grades are allowed in the major. Students must have a grade point average of at least 2.000 in the major in order to graduate.

Transfer students majoring in geography must complete at least 12 credit hours of upper-division geography courses at CU Boulder. No course may be used to fulfill more than one requirement for the major.

Required Courses and Credit Hours

Certain course selections are better preparation for certain concentrations.

Code	Title	Credit Hours
GEOG 1001	Our Changing Planet: Climate and Vegetation	4
GEOG 1011	Our Changing Planet: Landscapes and Water	4
GEOG 3023	Statistics and Geographic Data	4
Select one of the following human geography courses:		3
GEOG 1962	Geographies of Global Change	
GEOG 1972	Sustainable Futures, Environment and Society	
GEOG 1982	Global Geographies: Societies, Places, Connections	
GEOG 1992	Human Geographies	

GEOG 2092	Advanced Introduction to Human Geography	
Select one of the following mapping courses:		3-4
GEOG 2053	Mapping Our World	
or GEOG 3053	Geographic Information Science: Mapping	
Select at least one of the following methods courses:		3-4
GEOG 4023	Advanced Quantitative Methods for Spatial Data	
GEOG 4043	Advanced Geovisualization and Web Mapping	
GEOG 4093	Remote Sensing of the Environment	
GEOG 4103	Geographic Information Science: Spatial Analytics ¹	
GEOG 4173	Research Seminar	
GEOG 4463	Earth Analytics Data Science Bootcamp	
GEOG 4563	Earth Analytics	
GEOG 4722	Field Methods in Human Geography	
<i>GEOG Electives to complete the major (See Concentration Areas Tab)</i>		16-14

Total Credit Hours 37

¹ Does not count as a methods course for students pursuing the GIS concentration.

Graduating in Four Years

This applies only to the general geography degree. Consult the Four-Year Guarantee Requirements for information on eligibility. The concept of "adequate progress" as it is used here only refers to maintaining eligibility for the four-year guarantee: it is not a requirement for the major. To maintain adequate progress in geography, students should meet the following requirements:

- By the end of the third semester, complete GEOG 1001, GEOG 1011 and one of the following: GEOG 1962, GEOG 1972, GEOG 1982, GEOG 1992 or GEOG 2092.
- By the end of the sixth semester, complete an approved upper-division human geography course and 9 credit hours of upper-division geography courses.
- By the end of the sixth semester, complete GEOG 2053 or GEOG 3053 and GEOG 3023.
- By the eighth semester, complete the remaining upper-division credit hours.

Concentration Areas

General Geography Concentration

In addition to the courses required of all concentrations, complete the following GEOG coursework.

Code	Title	Credit Hours
At least one upper-division human or environment-society geography course (3XX2, 4XX2 or GEOG 4501).		3-4
Upper-division Geography electives, to reach 23 upper-division credit hours in the major.		10-13
Total Credit Hours		13-17

Human Geography Concentration

In addition to the courses required of all concentrations, complete the following GEOG coursework.

Code	Title	Credit Hours
GEOG 3742 or GEOG 3682	Place, Power, and Contemporary Culture International Development: Economics, Power, and Place	3
A third-year university-level proficiency in a foreign language appropriate to the geographic concentration is required. ¹		
Select three of the following electives: ²		9-10
GEOG 3422	Political Ecology	
GEOG 3612	Reimagining Cities: Spaces of Power, Privilege, and Possibility	
GEOG 3622	Cities of the Global South	
GEOG 3662	Economic Geography	
GEOG 3672	Who Runs the World? Sex, Power, and Gender in Geography	
GEOG 3682	International Development: Economics, Power, and Place	
GEOG 3692	Introduction to Global Public Health	
GEOG 3742	Place, Power, and Contemporary Culture	
GEOG 3812	Mexico, Central America, and the Caribbean	
GEOG 3822	China's Diverse Geographies: Environment, Society, Politics	
GEOG 3832	Love & War Geographies: Imperialism, Militarism, and Development in South Asia	
GEOG 3842	Human Geography of Czechia: Political, Economic and Social Transitions	
GEOG 3862	Global Africa: Environment, Development, and Culture	
GEOG 3882	Geography of the Former Soviet Union	
GEOG 4002	Topics in Human and Environment/Society Geography ³	
GEOG 4173	Research Seminar (may be applied to the concentration on a case-by-case basis)	
GEOG 4292	Migration, Immigrant Adaptation, and Development	
GEOG 4622	City Life	
GEOG 4632	Development Geography	
GEOG 4712	Political Geography	
GEOG 4732	Population Geography	
GEOG 4762	Geographies of Political Islam	
GEOG 4832	Geography of Tibet	
GEOG 4852	Health and Medical Geography	
GEOG 3930	Internship (may be applied to the concentration on a case-by-case basis)	
GEOG 4990	Senior Thesis (may be applied to the concentration on a case-by-case basis)	
Take one upper-division elective in Geographic Information Science, Environment and Society, or Physical Geography.		3-4
Total Credit Hours		15-17

¹ This requirement may be met by completion of one or two semester-long, third year, university-level grammar courses (depending on the language) with a grade of C- or better, while also satisfying language department requirements for advancement through the sequence.

² Unless otherwise noted, the department-enforced prerequisite for all courses is GEOG 1962, GEOG 1982, GEOG 1992 or GEOG 2092.

³ Special topics courses may be used to satisfy upper-division concentration requirements with approval from the department.

Environment and Society Geography Concentration

In addition to the courses required of all concentrations, complete the following GEOG coursework.

Code	Title	Credit Hours
GEOG 3402 or GEOG 3422	Natural Hazards Political Ecology	3
ENVS 2000	Applied Ecology for Environmental Studies	4
Select three of the following electives: ¹		9-10
GEOG 3402	Natural Hazards	
GEOG 3412	Conservation Practice and Resource Management	
GEOG 3422	Political Ecology	
GEOG 3672	Who Runs the World? Sex, Power, and Gender in Geography	
GEOG 3682	International Development: Economics, Power, and Place	
GEOG 3692	Introduction to Global Public Health	
GEOG 3812	Mexico, Central America, and the Caribbean	
GEOG 3822	China's Diverse Geographies: Environment, Society, Politics	
GEOG 3862	Global Africa: Environment, Development, and Culture	
GEOG 4002	Topics in Human and Environment/Society Geography ²	
GEOG 4173	Research Seminar (may be applied to the concentration on a case-by-case basis)	
GEOG 4501	Water Issues in the American West	
GEOG 4742	Topics in Environment and Society ²	
GEOG 4812	Political Ecology & Latin America	
GEOG 4822	Environment and Development in China	
GEOG 3930	Internship (may be applied to the concentration on a case-by-case basis)	
GEOG 4990	Senior Thesis (may be applied to the concentration on a case-by-case basis)	
Take one upper-division elective from either the Geographic Information Science, Human Geography, or Physical Geography list.		3-4
Total Credit Hours		19-21

¹ Unless otherwise noted, the department-enforced prerequisite for all courses is GEOG 1962, GEOG 1982, GEOG 1992 or GEOG 2092.

² Special topics courses may be used to satisfy upper-division concentration requirements with approval from the department.

Physical Geography Concentration

In addition to the courses required of all concentrations, complete the following GEOG coursework as well as the **ancillary mathematics and science coursework**.

Code	Title	Credit Hours
Required GEOG Coursework		
Select at least two of the following:		6-8
GEOG 3351	Biogeography	
GEOG 3511	The Water Cycle	
GEOG 3601	Principles of Climate	
GEOG 4241	Earth Surface Processes	
Select at least two of the following electives:		6-8
GEOG 3251	Mountain Geosystems	
GEOG 3301	Analysis of Climate and Weather Observations	
GEOG 3351	Biogeography	
GEOG 3511	The Water Cycle	
GEOG 3601	Principles of Climate	
GEOG 4001	Topics in Physical Geography ¹	
GEOG 4173	Research Seminar (may be applied to the concentration on a case-by-case basis)	
GEOG 4201	Biometeorology	
GEOG 4241	Earth Surface Processes	
GEOG 4251	River Processes and Forms: Fluvial Geomorphology	
GEOG 4261	Glaciers and Permafrost	
GEOG 4271	The Arctic Climate System	
GEOG 4311	Watershed Biogeochemistry	
GEOG 4321	Snow Hydrology	
GEOG 4331	Mountain Climatology	
GEOG 4371	Forest Geography: Principles and Dynamics	
GEOG 4401	Soils Geography	
GEOG 3930	Internship (may be applied to the concentration on a case-by-case basis)	
GEOG 4990	Senior Thesis (may be applied to the concentration on a case-by-case basis)	
Take one upper-division elective from the Geographic Information Science, Human Geography, or Environment and Society Geography list.		3-4
Total Credit Hours		15-20

Code	Title	Credit Hours
Ancillary Mathematics & Science Coursework		
Select one of the following two-semester sequences in calculus:		8-10
MATH 1300 & MATH 2300	Calculus 1 and Calculus 2	
APPM 1350 & APPM 1360	Calculus 1 for Engineers and Calculus 2 for Engineers	
Select three of the following semesters of physics and chemistry, including related labs:		14-15

PHYS 1110	General Physics 1	
PHYS 1120 & PHYS 1140	General Physics 2 and Experimental Physics 1	
CHEM 1113 & CHEM 1114	General Chemistry 1 and Laboratory in General Chemistry 1	
CHEM 1133 & CHEM 1134	General Chemistry 2 and Laboratory in General Chemistry 2	
Total Credit Hours		22-25

¹ Special topics courses may be used to satisfy upper-division concentration requirements with approval from the department.

Geographic Information Science Concentration

In addition to the courses required of all concentrations, complete the following GEOG coursework.

Code	Title	Credit Hours
Required GEOG Coursework		
GEOG 4103	Geographic Information Science: Spatial Analytics	4
Select three of the following electives:		9-12
GEOG 4003	Topics in Geographic Skills	
GEOG 4043	Advanced Geovisualization and Web Mapping	
GEOG 4093	Remote Sensing of the Environment	
GEOG 4173	Research Seminar (may be applied to the concentration on a case-by-case basis)	
GEOG 4203	Geographic Information Science: Spatial Modeling	
GEOG 4303	Geographic Information Science: Spatial Programming	
GEOG 4403	Geographic Information Science: Space Time Analytics	
GEOG 4503	Geographic Information Science: Project Management	
GEOG 3930	Internship (may be applied to the concentration on a case-by-case basis)	
GEOG 4990	Senior Thesis (may be applied to the concentration on a case-by-case basis)	
Take one upper-division elective from the Human Geography, Environment and Society Geography, or Physical Geography list.		3-4
Total Credit Hours		16-20

Recommended Four-Year Plan of Study

Through the required coursework for the major, students will complete all 12 credit hours of the Natural Sciences area of the Gen Ed Distribution Requirement, including the lab component and at least 6 credits hours of the Social Sciences area of this requirement.

Depending on which track students follow and which elective courses they select within the track of the major, students can complete all of the Social Sciences area and 3 credits in the Arts and Humanities area of the Gen Ed Distribution Requirement and, potentially, the Global Perspective and United States Perspective component of the Gen Ed Diversity Requirement.

First Year		
Fall Semester		
		Credit Hours
GEOG 1001	Our Changing Planet: Climate and Vegetation	4
Gen. Ed. Skills course (example: Lower-division Written Communication)		3
Gen. Ed. Distribution/Diversity course (example: Arts & Humanities/US Perspective)		3
Elective/MAPS		3
Elective/MAPS		3
Credit Hours		16

Spring Semester		
		Credit Hours
GEOG 1011	Our Changing Planet: Landscapes and Water	4
Gen. Ed. Distribution/Diversity course (example: Arts & Humanities/Global Perspective)		3
Gen. Ed. Skills course (example: QRMS)		3-5
Elective/MAPS		3
Elective		3-0
Credit Hours		16-15

Second Year		
Fall Semester		
		Credit Hours
GEOG 1962 or GEOG 1972 or GEOG 1982 or GEOG 1992 or GEOG 2092	Geographies of Global Change or Sustainable Futures, Environment and Society or Global Geographies: Societies, Places, Connections or Human Geographies or Advanced Introduction to Human Geography	3
Gen. Ed. Distribution course (example: Arts & Humanities)		3
Gen. Ed. Distribution course (example: Social Sciences) (if needed)		3
Elective		3
Elective		3
Credit Hours		15

Spring Semester		
		Credit Hours
GEOG 2053 or GEOG 3053	Mapping Our World or Geographic Information Science: Mapping	3-4
GEOG 3023	Statistics and Geographic Data	4
Gen. Ed. Distribution course (example: Arts & Humanities)		3
Gen. Ed. Distribution course (example: Social Sciences) (if needed)		3
Credit Hours		13-14

Third Year		
Fall Semester		
		Credit Hours
GEOG Upper-division Elective		3
Gen. Ed. Skills course (example: Upper-division Written Communication)		3
Gen. Ed. Distribution course (example: Natural Sciences) (if needed)		3
GEOG 3023	Statistics and Geographic Data	4

Elective	3
Credit Hours	16

Spring Semester	
	Credit Hours
GEOG Upper-division Elective	3
GEOG Methods course (Upper-division)	3-4
Gen. Ed. Distribution course (example: Social Sciences) (if needed)	3
Upper-division Elective	3
Elective	3
Credit Hours	15-16

Fourth Year	
Fall Semester	
	Credit Hours
GEOG Upper-division Elective	3-4
GEOG Upper-division Elective	4-3
Upper-division Elective	3
Upper-division Elective	3
Elective	3
Credit Hours	16

Spring Semester	
	Credit Hours
GEOG Upper-division Elective	3
GEOG Upper-division Elective	3
Upper-division Elective	3
Upper-division Elective	3
Elective or Upper-division Elective (if needed)	3
Credit Hours	15
Total Credit Hours	122-123

Learning Outcomes

- Demonstrate knowledge of geographic theories and concepts in the discipline, and a thorough understanding of interactions between human and environmental processes, through a geographical lens.
- Demonstrate the ability to perform critical inquiry in the discipline, including acquiring, analyzing, and interpreting geographical data to be used in statistical analyses, creating basic maps, and performing geospatial analyses.
- Demonstrate information literacy in relevant geographic scholarship.
- Effectively communicate about geographical issues through scholarly writing, presentations, and visualizations.
- Demonstrate critical thinking skills and logical approaches to problem solving within interdisciplinary settings.
- Demonstrate the ability to address real-world problems by applying advanced analytical techniques ranging from qualitative, to quantitative, to spatial and field survey methodologies.