

BACHELOR OF ARTS IN GEOGRAPHY - QUANTITATIVE REASONING CATEGORY I/II AND STRETCH ENGLISH

120 Total Units Required
Minimum Number of Units in the Major: 39

Course	Title	Units
First Semester		
ENG 104	Writing the First Year: Finding Your Voice Stretch I ¹	3
GE Area A ²		3
GE Area B: Quantitative Reasoning (B4) ³		3
GE Area C		3
GE Area D		3
		Units 15
Second Semester		
ENG 105	Writing the First Year: Finding Your Voice Stretch II (A2) ¹	3
GEOG 101	Our Physical Environment (Major Core, B1, ES)	3
GE Area A		3
Complementary Studies or SF State Studies or University Elective – Take Two ⁴		6
		Units 15
Third Semester		
Select One (Major Core):		3
GEOG 102	The Human Environment (D1, ES, GP) ⁵	
GEOG 107	World Regions and Interrelations (D1, ES, GP)	
GE Area B: Life Science (B2) and Laboratory Science (B3) ⁶		3-4
GE Area D		3
GE Area E		3
Complementary Studies or SF State Studies or University Elective ⁴		3
		Units 15-16
Fourth Semester		
GEOG 205	Geographic Techniques (Major Core)	3
GE Area C - Take Two		6
Complementary Studies or SF State Studies or University Elective – Take Two ⁴		6
		Units 15

Fifth Semester		
GEOG 500GW	Physical and Human Dimensions of Climate Change - GVAR ⁵	3
Distribution Requirement (12-15 units) - Take One ⁷		3
Focus of Interest (12 units) - Take One ⁸		3
GE Area UD-B: Upper-Division Physical and/or Life Sciences (Consider SF State Studies Course)		3
Complementary Studies or SF State Studies or University Elective ⁴		3
		Units 15
Sixth Semester		
Distribution Requirement (12-15 units) - Take One ⁷		3
Focus of Interest (12 units) - Take One ⁸		3
GE Area UD-C: Upper-Division Arts and/or Humanities (Consider SF State Studies Course)		3
Complementary Studies or SF State Studies or University Elective – Take Two ⁴		6
		Units 15
Seventh Semester		
Distribution Requirement (12-15 units) - Take One ⁷		3
Focus of Interest (12 units) - Take One ⁸		3
GE Area UD-D: Upper-Division Social Sciences (Consider SF State Studies Course)		3
Complementary Studies or SF State Studies or University Elective – Take Two ⁴		6
		Units 15
Eighth Semester		
GEOG 690	Senior Seminar in Geography and Environmental Science (Major Capstone)	3
Distribution Requirement (15 units) – Take Two ⁷		6
Focus of Interest (12 units) - Take One ⁸		3
Complementary Studies or SF State Studies or University Elective ⁴		3
		Units 15
		Total Units 120-121

¹ ENG 114 can only be taken if you complete Directed Self-Placement (DSP) and select ENG 114; if you choose ENG 104/ENG 105 through DSP you will satisfy A2 upon successful completion of ENG 105 in the second semester; multilingual students may be advised into alternative English courses.

² To avoid taking additional units, it is recommended that you meet **SF State Studies** requirements (AERM, GP, ES, SJ) within your GE or major.

³ Depending on courses completed through Early Start, students in Pathway/Category III or IV may be required to enroll in a support course to complement their Quantitative Reasoning/B4 requirement. There are multiple course options for this pathway. Before enrolling in a B4 course, students should verify their MATH Pathway/Category in their Student Center (<http://cms.sfsu.edu/content/student-center>). Information regarding the courses that correspond with your MATH Pathway/Category can be found on the Developmental Studies Office Website (<http://developmentalstudies.sfsu.edu>).

⁴ **Complementary Studies**

All Bachelor of Arts students must complete 12 units of Complementary Studies in courses outside the primary prefix for the major, and not cross-listed with the primary prefix for the major. Students who complete two majors or a major and a minor automatically complete the Complementary Studies requirement. An additional way to satisfy the Complementary Studies requirement for students in the Geography major is to meet with an advisor to identify courses other than GEOG, and not cross-listed with GEOG, that would serve to complement each student's area of interest. Four units from Complementary Studies will also double-count toward units in the major.

Students who have earned AA-T or AS-T degrees and are pursuing a similar B.A. degree at SF State are required to fulfill the Complementary Studies requirement as defined by the major department. Students should consult with a major advisor about how transfer units and/or SF State units can best be applied to this requirement in order to ensure degree completion within 60 units. Students are advised that the CR grade is acceptable in any two courses to be counted for the Geography major. No more than one course counted toward major requirements may be completed with a grade less than a C-.

⁵ GEOG 102 is a prerequisite for GEOG 500GW.

⁶ Consider taking a class combined with a laboratory or a separate lab to fulfill B3 if not already satisfied.

⁷ **Distribution Requirement (12-15 units)**

(Cross-listed courses originating in other departments are not accepted in these categories.)

One course from each of the following four areas:

- Physical Environment: 310–399 numbered courses in Geography
- Human Geography: 400 level courses in Geography
- Human-Environment Interaction in a Regional Context:
 - GEOG 550 Geography of the United States and Canada (3 units)
 - GEOG 552 Geography of California (3 units) (UD-D, AERM, ES, SJ)
 - GEOG 575 Emerging China (3 units)
 - GEOG 646 The Geography of Marine Resources (4 units)
 - GEOG 647 Geography of Water Resources (4 units)
 - GEOG 648 Management of National Parks and Protected Areas (4 units)
 - GEOG 651/USP 651 San Francisco Bay Area Environmental Issues (4 units) (UD-B, ES)
- Either Geographic Techniques: 601–639 numbered courses in Geography or Applied Geography: 640–668 numbered courses in Geography

⁸ **Focus of Interest (12 units)**

Units of upper-division Geography electives consisting of a minimum of three courses chosen on advisement. These courses will be organized around coherent themes such as those listed below. In addition, alternative concentrations tailored to individual student interest may be developed in consultation with the Geography undergraduate advisor. On advisement, appropriate upper-division courses from other departments and programs may be included.

- Human Geography
- Environmental Studies
- Physical Environment
- Resource Management
- Techniques of Geographic Analysis
- Urban Environment, Transportation, and Land Use
- Focused individual interest pursued in consultation with the undergraduate advisor

Note: A minimum of 40 upper-division units must be completed for the degree (including upper division units required for the major, general education, electives, etc.). A student can complete this major yet not attain the necessary number of upper-division units required for graduation. In this case, additional upper-division courses will be needed to reach the required total.

Foci of Interest

Focus on Human Geography

In addition to serving traditional liberal arts education, this option permits systematic study within cultural geography:

- GEOG 422 Environmental Perception (3 units)
- GEOG 423/WGS 423 Geographic Perspectives on Gender, Environment, and Development (3 units)
- GEOG 425 Economic Geography (3 units)
- GEOG 427 Agriculture and Food Supply (4 units) (ES, GP)
- GEOG 430 Transforming Food and Agriculture Systems: Local to Global (4 units) (ES, GP, SJ)
- GEOG 432/USP 432 Urban Geography (4 units) (ES, GP)
- GEOG 434/H ED 434 Geographies of Health and Health Care (3 units)
- GEOG 445/I R 445 Geopolitics and Globalization (3 units) (UD-D)
- GEOG 454 San Francisco on Foot (4 units)
- GEOG 455 Geography of Ethnic Communities (3 units) (AERM, SJ)

Select a 500 level course

Focus on Environmental Studies

This focus provides students with an opportunity to learn about environmental processes and issues arising from human activities on our planet.

Required

- GEOG 600/ENVS 600 Environmental Problems and Solutions (3 units) (UD-D, ES, GP)

Recommended

- GEOG 316 Biogeography (4 units)
- GEOG 317 Geography of Soils (4 units)
- GEOG 422 Environmental Perception (3 units)
- GEOG 427 Agriculture and Food Supply (4 units) (ES, GP)
- GEOG 642/ERTH 642 Watershed Assessment and Restoration (4 units)
- GEOG 644 Water Quality (3 units)
- GEOG 646 The Geography of Marine Resources (4 units)
- GEOG 647 Geography of Water Resources (4 units)
- GEOG 651/USP 651 San Francisco Bay Area Environmental Issues (4 units) (UD-B, ES)
- GEOG 652/USP 652 Environmental Impact Analysis (4 units)
- GEOG 657/ENVS 657 Natural Resource Management: Biotic Resources (4 units)

GEOG 666 Geography of Garbage: Recycling and Waste Reduction (3 units) (ES)

GEOG 667/USP 515 Environmental Justice: Race, Poverty, and the Environment (4 units) (ES, GP, SJ)

GEOG 668/USP 513/PLSI 513 Politics, Law, and the Urban Environment (4 units)

Supplementary courses in Environmental Studies are also recommended on advisement.

Focus on the Physical Environment

This focus offers a chance to study physical patterns and processes involving landforms, climate, biogeography, soils, and water.

Courses central to the specialization include:

GEOG 312 Geography of Landforms (4 units)

GEOG 313 Earth's Climate System (4 units)

GEOG 314 Bioclimatology (4 units)

GEOG 316 Biogeography (4 units)

GEOG 317 Geography of Soils (4 units)

GEOG 342/ERTH 442 Surface Water Hydrology (4 units)

Supporting courses include:

GEOG 602 Field Methods in Physical Geography (4 units)

GEOG 642/ERTH 642 Watershed Assessment and Restoration (4 units)

GEOG 647 Geography of Water Resources (4 units)

GEOG 657/ENVS 657 Natural Resource Management: Biotic Resources (4 units)

Supplementary courses in Earth & Climate Sciences and Biology are recommended on advisement.

Focus on Resource Management

A central theme in geography is the use and abuse of natural resources. Courses central to this specialization include:

GEOG 317 Geography of Soils (4 units)

GEOG 425 Economic Geography (3 units)

GEOG 427 Agriculture and Food Supply (4 units) (ES, GP)

GEOG 600/ENVS 600 Environmental Problems and Solutions (3 units) (UD-D, ES, GP)

GEOG 602 Field Methods in Physical Geography (4 units)

GEOG 603 Introduction to Geographic Information Systems (3 units)

GEOG 610 Remote Sensing of the Environment I (4 units)

GEOG 611 Remote Sensing of the Environment II (4 units)

GEOG 642/ERTH 642 Watershed Assessment and Restoration (4 units)

GEOG 644 Water Quality (3 units)

GEOG 646 The Geography of Marine Resources (4 units)

GEOG 647 Geography of Water Resources (4 units)

GEOG 657/ENVS 657 Natural Resource Management: Biotic Resources (4 units)

GEOG 666 Geography of Garbage: Recycling and Waste Reduction (3 units) (ES)

Supplementary courses in Earth & Climate Sciences and Biology are recommended on advisement.

Focus on Techniques of Geographic Analysis

This option concentrates on technical skills:

Data Acquisition in the field

GEOG 601 Field Methods in Human Geography (3 units)

GEOG 602 Field Methods in Physical Geography (4 units)

Data Analysis in the lab

GEOG 610 Remote Sensing of the Environment I (4 units)

GEOG 611 Remote Sensing of the Environment II (4 units)

Geographic Information Systems

GEOG 603 Introduction to Geographic Information Systems (3 units)

GEOG 620 Geographical Information Systems (4 units)

GEOG 621 Geographic Information Systems for Environmental Analysis (4 units)

GEOG 625 Programming for Geographic Information Science (4 units)

GEOG 629 Coastal and Marine Applications of GIS (3 units)

Data Display in Cartography

GEOG 606 Cartography (3 units)

Internship (strongly recommended)

GEOG 688 Geographic Internship (2-6 units)

Focus on Urban Environment, Transportation, and Land Use

This specialization offers an opportunity to acquire foundation knowledge to prepare for entry level careers and graduate work. Key courses include:

GEOG 422 Environmental Perception (3 units)

GEOG 423/WGS 423 Geographic Perspectives on Gender, Environment, and Development (3 units)

GEOG 425 Economic Geography (3 units)

GEOG 427 Agriculture and Food Supply (4 units) (ES, GP)

GEOG 432/USP 432 Urban Geography (4 units) (ES, GP)

GEOG 433/USP 433 Urban Transportation (4 units)

GEOG 434/H ED 434 Geographies of Health and Health Care (3 units)

GEOG 435 Geography of Global Transportation (4 units)

GEOG 455 Geography of Ethnic Communities (3 units) (AERM, SJ)

GEOG 601 Field Methods in Human Geography (3 units)

GEOG 603 Introduction to Geographic Information Systems (3 units)

GEOG 651/USP 651 San Francisco Bay Area Environmental Issues (4 units) (UD-B, ES)

GEOG 652/USP 652 Environmental Impact Analysis (4 units)

GEOG 658/USP 658 Land-Use Planning (4 units)

GEOG 666 Geography of Garbage: Recycling and Waste Reduction (3 units) (ES)

GEOG 667/USP 515 Environmental Justice: Race, Poverty, and the Environment (4 units) (ES, GP, SJ)

Upper-division courses in Urban Studies are particularly appropriate as well.

Focus Based on Individual Interests

This focus may be pursued in consultation with a geography major advisor.

Highly recommended courses:

GEOG 603 Introduction to Geographic Information Systems (3 units)

GEOG 688 Geographic Internship (2-6 units)