

Geography

In the College of Arts and Letters

OFFICE: Storm Hall 323
TELEPHONE: 619-594-5437 / FAX: 619-594-4938

Faculty

Emeritus: Blick, Eidemiller, Fredrich, Getis, Greenwood, Griffin, Johnson, Keen, Kiewiet de Jonge, McArthur, Pryde, Quastler, Stutz, Taylor, Wright

Chair: O'Leary

The Stephen and Mary Birch Foundation Chair in Geographical Studies: Christakos

Professors: Aguado, Aitken, Christakos, Ford, Hope, Jankowski, O'Leary, Rey, Stow, Weeks

Associate Professor: Tsou

Assistant Professors: An, Bosco, Farley, Skupin

Offered by the Department

Doctor of Philosophy degree in geography.

Master of Arts degree in geography.

Master of Science degree in geography.

Concentration in geographic information science.

Concentration in watershed science.

Major in geography with the B.A. degree in liberal arts and sciences.

Emphasis in methods of geographical analysis.

Emphasis in natural resource and environmental geography.

Emphasis in physical geography.

Emphasis in urban and regional analysis.

Major in geography with the B.S. degree in applied arts and sciences

Emphasis in geographic information science.

Minor in geography.

Certificate in geographic information science.

The Stephen and Mary Birch Foundation Chair in Geographical Studies

The Stephen and Mary Birch Foundation Chair in Geographical Studies was created through the Birch Foundation's grant to the Department of Geography to endow a chair and create a Center for Earth Systems Analysis Research. Dr. George Christakos, internationally recognized for his expertise in theory and methodology of spatial analysis and mathematical modeling applied to environmental, ecological, health, and geographical systems, is the third holder of the chair.

The Major

Geography is the study of spatial aspects of the physical environment, human activities and landscapes, and the nature of their interactions. Geographers draw upon theories from both the physical and social sciences. As physical scientists, they study the processes and resulting features of the earth's surface, such as vegetation, climate, soils, landforms, and resources. As social scientists, geographers explore such topics as the arrangement of societies on the earth's surface, land use patterns, urbanization, resource and energy usage, and environmental conservation.

The Department of Geography offers a broad range of fields from which to select an emphasis. These include physical geography—focusing on scientific explanations of the earth's physical features and processes; natural resource and environmental geography—concerned with human impacts on the earth; urban and regional analysis—dealing with the form of cities and the dynamics of regional systems; methods of geographical analysis—providing a background in cartography, geographic information systems, remote sensing and spatial statistics. A comprehensive program is offered in general geography—encompassing topics from all of the emphases.

The department also offers a Certificate in Geographic Information Science. This program is for students interested in mapping, computer graphics, surveying, aerial photography, and the use of satellite technology to study earth resources. A variety of career opportunities exist for geography majors. In recent years many graduates with bachelor degrees have entered the fields of urban and environmental planning, both in the public and private sectors. Employment is also available as geographic information systems specialists, cartographers, park naturalists, and remote sensing specialists. The following represent some of the jobs held by recent graduates: environmental impact analyst, urban planner, cartographer, park ranger, transportation planner, travel agent, teacher, zoning investigator, terrain analyst. Some graduates have chosen to pursue opportunities in business where firms are interested in hiring college graduates with broad academic backgrounds.

Advising

All College of Arts and Letters majors are urged to consult with their department adviser as soon as possible; they are required to meet with their department adviser within the first two semesters after declaration or change of major.

Major Academic Plans (MAPs)

Visit <http://www.sdsu.edu/mymap> for the recommended courses needed to fulfill your major requirements. The MAPs Web site was created to help students navigate the course requirements for their majors and to identify which General Education course will also fulfill a major preparation course requirement.

Geography Major

With the B.A. Degree in Liberal Arts and Sciences
(Major Code: 22061)

All candidates for a degree in liberal arts and sciences must complete the graduation requirements listed in the section of this catalog on "Graduation Requirements." No more than 48 units in geography courses can apply to the degree.

Graduation with Distinction. A student desiring to graduate with Distinction in Geography must meet the university requirements listed in the section of this catalog on "Graduation Requirements" and be recommended by the geography faculty.

General Geography Program

A minor in another department approved by the undergraduate adviser in Geography is required for this degree.

Preparation for the Major. Geography 101, 101L, 102. (7 units)

Language Requirement. Competency (successfully completing the third college semester or fifth college quarter) is required in one foreign language to fulfill the graduation requirement. Refer to section of catalog on "Graduation Requirements."

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above, or English 508W, 581W, 584W, or Rhetoric and Writing Studies 305W, 500W, 503W with a grade of C (2.0) or better. See "Graduation Requirements" section for a complete listing of requirements.

Student Assessment. Passing Geography 495 with a grade of credit (Cr) to be taken during the fall or spring semester of the calendar year in which the student expects to graduate. Geography 495 is not included in the minimum units required for the major.

Major. A minimum of 27 upper division units in geography to include three units selected from each of the following groups: (a) Geography 321-336; (b) 353-354, 554-559, 585-586; (c) 370, 378,

GEOG

483, 570-575; (d) 378, 401, 409, 504-511; (e) 380-381; (f) 385, 484, 581-588, and nine units from one of the following groups: (a) Physical: Geography 378, 401, 409, 504-511; (b) Natural Resource and Environmental: 370, 378, 483, 570-575; (c) Urban and Regional Analysis: 353-354, 385, 554-559, 585-586; (d) Methods of Geographical Analysis: 380-385, 484, 581-588; (e) Cultural: 354, 554, but not more than six units from Geography 312, 321-336. No course may be used more than once to satisfy this requirement.

Emphasis in Methods of Geographical Analysis

Students selecting this emphasis are not required to complete a minor in another department.

Preparation for the Major. Geography 101, 101L, 102, 104; Computer Science 105 or 107; Statistics 250 or comparable statistics course. (16 units)

Language Requirement. Competency (successfully completing the third college semester or fifth college quarter) is required in one foreign language to fulfill the graduation requirement. Refer to section of catalog on "Graduation Requirements."

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above, or English 508W, 581W, 584W, or Rhetoric and Writing Studies 305W, 500W, 503W with a grade of C (2.0) or better. See "Graduation Requirements" section for a complete listing of requirements.

Student Assessment. Passing Geography 495 with a grade of credit (Cr) to be taken during the fall or spring semester of the calendar year in which the student expects to graduate. Geography 495 is not included in the minimum units required for the major.

Major. A minimum of 36 upper division units in geography to include Geography 385; 15 units selected from Geography 380-381, 484, 498, 581-588*; three units selected from each of the following groups: (a) 321-336; (b) 370, 483, 570-575; (c) 353-354, 554-559; six units selected from Geography 378, 401, 409, 504-511; and three units of upper division geography electives.

* Geography 595 may be used to satisfy three units in this group where appropriate and approved by the department.

Emphasis in Natural Resource and Environmental Geography

Students selecting this emphasis are not required to complete a minor in another department.

Students may select either track (a) Environmental Analysis or track (b) Environmental Policy.

Preparation for the Major. Geography 101, 101L, 102; Biology 100 and 100L; Political Science 102; Statistics 250 or comparable statistics course. (17 units)

Language Requirement. Competency (successfully completing the third college semester or fifth college quarter) is required in one foreign language to fulfill the graduation requirement. Refer to section of catalog on "Graduation Requirements."

Student Assessment. Passing Geography 495 with a grade of credit (Cr) to be taken during the fall or spring semester of the calendar year in which the student expects to graduate. Geography 495 is not included in the minimum units required for the major.

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above, or English 508W, 581W, 584W, or Rhetoric and Writing Studies 305W, 500W, 503W with a grade of C (2.0) or better. See "Graduation Requirements" section for a complete listing of requirements.

Track (a): Environmental Analysis

Additional Preparation for the major. Mathematics 121 or 150; Chemistry 100; and Physics 107. (11-13 units)

Major. A minimum of 36 upper division units in geography to include Geography 370 and 385; three units from 380-381; three units from 321-336; six units from 378, 401, 409, 504-511, and three units from 353-354, 554-559.

An additional 15 units to be selected from 3 or 4 units from Geography 484 or 587, three units from 581-588, and nine units from 483, 570-575, 595.

Track (b): Environmental Policy

Additional Preparation for the major. Economics 101 or 102. (3 units)

Major. A minimum of 36 upper division units in geography to include Geography 370 and 385; three units from 380-381; three units from 321-336; six units from 378, 401, 409, 504-511, and three units from 353-354, 554-559.

An additional 15 units to be selected from 3 or 4 units from Geography 484, 581-588 and 12 units from 483, 570-575, 595.

Emphasis in Physical Geography

Students selecting this emphasis are not required to complete a minor in another department.

Preparation for the Major. Geography 101, 101L, 102; Mathematics 121 or 150; Chemistry 200; Physics 180A, 182A; Statistics 250 or comparable statistics course. (22-23 units)

Language Requirement. Competency (successfully completing the third college semester or fifth college quarter) is required in one foreign language to fulfill the graduation requirement. Refer to section of catalog on "Graduation Requirements."

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above, or English 508W, 581W, 584W, or Rhetoric and Writing Studies 305W, 500W, 503W with a grade of C (2.0) or better. See "Graduation Requirements" section for a complete listing of requirements.

Student Assessment. Passing Geography 495 with a grade of credit (Cr) to be taken during the fall or spring semester of the calendar year in which the student expects to graduate. Geography 495 is not included in the minimum units required for the major.

Major. A minimum of 36 upper division units in geography to include Geography 380 or 381; 385; 15 units selected from Geography 378, 401, 409, 498, 504-511*; six units selected from Geography 484, 581-588; and three units selected from each of the following groups: (a) 321-336; (b) 353-370, 554-575; and three units of upper division electives.

* Geography 595 may be used to satisfy three units in this group where appropriate and approved by the department.

Emphasis in Urban and Regional Analysis

Students selecting this emphasis are not required to complete a minor in another department.

Preparation for the Major. Geography 101, 101L, 102; Computer Science 105 or 107; Economics 102; Statistics 250 or comparable statistics course. (16 units)

Language Requirement. Competency (successfully completing the third college semester or fifth college quarter) is required in one foreign language to fulfill the graduation requirement. Refer to section of catalog on "Graduation Requirements."

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above, or English 508W, 581W, 584W, or Rhetoric and Writing Studies 305W, 500W, 503W with a grade of C (2.0) or better. See "Graduation Requirements" section for a complete listing of requirements.

Student Assessment. Passing Geography 495 with a grade of credit (Cr) to be taken during the fall or spring semester of the calendar year in which the student expects to graduate. Geography 495 is not included in the minimum units required for the major.

Major. A minimum of 36 upper division units in geography to include Geography 385; 15 units selected from Geography 353-354, 498, 554-559, 572, 585-586*; three units selected from each of the following groups: (a) 378, 401, 409, 504-511; (b) 321-336; (c) 370, 483, 570-575; (d) 380, 381; (e) 484, 587; and three units of electives.

* Geography 595 may be used to satisfy three units in this group where appropriate and approved by the department.

Geography Major

With the B.S. Degree in Applied Arts and Sciences
(Major Code: 22061)

Emphasis in Geographic Information Science

Students selecting this emphasis are not required to complete a minor in another department.

Preparation for the Major. Geography 101, 101L, 102, 104; Biology 100, 100L; Chemistry 200; six units from Computer Science 105-108; Mathematics 121 and 122, or 150; Physics 180A, 182A; Statistics 250 or comparable statistics course. (36-38 units)

Graduation Writing Assessment Requirement. Passing the Writing Proficiency Assessment with a score of 10 or above, or English 508W, 581W, 584W, or Rhetoric and Writing Studies 305W, 500W, 503W with a grade of C (2.0) or better. See "Graduation Requirements" section for a complete listing of requirements.

Student Assessment. Passing Geography 495 with a grade of credit (Cr) to be taken during the fall or spring semester of the calendar year in which the student expects to graduate. Geography 495 is not included in the minimum units required for the major.

Major. A minimum of 37 upper division units to include Geography 381, 385, 484, 585, 587; and 21 units of upper division electives selected as follows: six units from Geography 483, 581-595; nine units from Geography 370, 378, 401, 409, 504-511, 570-575; three units from Geography 353-354, 554-559; three units from Computer Science 310*, 320.

* Additional prerequisite required.

Geography Minor

The minor in geography consists of a minimum of 18-19 units of geography to include Geography 101, 102 and one of the following areas:

Cultural: Six units from Geography 312, 354, 554, and six units selected from regional courses Geography 321-336.

Methods of Geographical Analysis: Nine units selected from Geography 380-385, 484, 581-589, and three units selected from any other upper division geography course.

Natural Resource and Environment: Nine units selected from Geography 370, 378, 483, 570-575, and three or four units selected from methods courses Geography 380-385, 484, 581-589.

Physical: Nine units selected from Geography 378, 401, 409, 504-511, and three or four units selected from methods courses Geography 380-385, 484, 581-589.

Urban and Regional Analysis: Nine units selected from Geography 353-354, 554-559, and three or four units from either methods or regional courses Geography 321-336, 380-385, 484, 581-589.

Courses in the minor may not be counted toward the major, but may be used to satisfy preparation for the major and general education requirements, if applicable. A minimum of six upper division units must be completed in residence at San Diego State University.

Geographic Information Science Certificate*

The purpose of the program is to prepare students to acquire, manage, and visualize geospatial data in public and private organizations. Students must apply for admission to the program before the completion of 12 certificate units and must complete the required units with a 2.5 grade point average.

The certificate requires 27 units distributed between the departments of Geography and Computer Science as follows: 12-15 units selected from Geography 104, 381, 484, 581-589, and 12-15 units selected from Computer Science 105, 107, 108, 220, 310, 320, 503, 514, 520, 535, 551, 575. Courses with relevant content (e.g. Geography 596 or Computer Science 596) may be substituted for the geography and computer science courses with the approval of the certificate adviser. Courses in the certificate may be counted toward the major in geography but may not be counted toward the minor.

* Additional prerequisites required for this certificate.

GEOG