

GRADUATE PROGRAM

#9

(master's degree, doctoral degree, certificate of advanced study,
credential requiring graduate-level course work)

CATALOG STATEMENT REVISION REQUEST

Return original to:

*Division of Graduate Studies
Harold H. Haak Administrative Center
4th Floor, Henry Madden Library
Mail Stop ML51*

Graduate Program: Certificate for Advanced Studies in CRP
Department: Geography & City & Regional Planning
Contact Person: Segun Ogunjemiyo
Phone: 278-6897
E-mail: sogunjemiyo@csufresno.edu
Catalog pg. # _____

PURPOSE OF FORM: To propose revision of a graduate program catalog statement (program description and/or requirements) as it appears in the University Catalog. The proposed program changes if approved will be binding on students who are advanced to candidacy under the new catalog statement. NOTE: Revisions in graduate courses and proposals for new graduate courses are submitted on separate forms available through the Division of Graduate Studies, phone 8-2448.

INSTRUCTIONS: Use attachments to this sheet to indicate the changes that you propose. Make changes as space allows directly on a 8.5" x 11" xerographic copy of the entire page(s) of your graduate program statement (description/requirements) as it appears in the most recent University Catalog, including page numbers. Use "mock-up" style: cross out wording to be deleted; type new language in margins. If there is not sufficient space in the margins to type lengthy additions, designate inserts (a, b, c, etc.). Attach fully typed language for each insert on additional sheets. Address questions on these instructions to the Dean, phone 8-2448.

Routine proposals for graduate program changes are reviewed by the Graduate Curriculum Subcommittee. Extensive, substantive changes are reviewed by the University Graduate Committee.

Those planning to propose a new or extensively revised graduate program (master's, doctoral, or certificate of advanced study), including a proposal for a revised or an additional option under an existing graduate degree, should schedule a meeting with the Graduate Dean.

JUSTIFICATION: Explain why the proposed changes in the graduate program are needed. Attach additional pages as necessary. Special justification and approval are required for proposals to increase master's degree program units above 30 units in academic fields, and 60 units in professional fields. Such justification must include comparative information concerning similar programs at representative universities, and outline adherence to accreditation standards if applicable. Document the impact of the proposed change and/or any increased program units on program students and department resources.

CONSULTING SIGNATURES (if required)

In an effort to avoid misunderstandings, signatures must be obtained from those **departments potentially affected** by proposed change(s).

I have read the catalog statement revision request and support the proposed change(s).

Yes No

If no, please explain your concern(s):

Department Chair (of department being consulted)

Department

Department

Department Chair (typed name)

Department Chair (typed name)

Department Chair Signature

Department Chair Signature

Date

Date

REQUIRED SCHOOL SIGNATURES (verifies proposal has been approved)

Graduate Program Coordinator

Hongwei Dong
Typed Name


Signature

2-19-14
Date

Department Chair

Segun Ogunjemiyo
Typed Name


Signature

2-19-14
Date

School Curriculum (or Credential) Committee Chair (if applicable)

Andrew R Jones
Typed Name


Signature

2/21/14
Date

School Dean

Luz Gonzalez
Typed Name


Signature

2-25-14
Date

- For committee use only -

**UNIVERSITY GRADUATE COMMITTEE/GRADUATE CURRICULUM
SUBCOMMITTEE REVIEW RECOMMENDATION:**

- Request Approved
- Request Denied
- Request Deferred

12/4/14
Date of Action

Explanation:

MSC to approve

Recommendation approved by:

Dean, Division of Graduate Studies/or designee

J. MARSHALL
Typed Name

[Signature]
Signature

12/16/14
Date

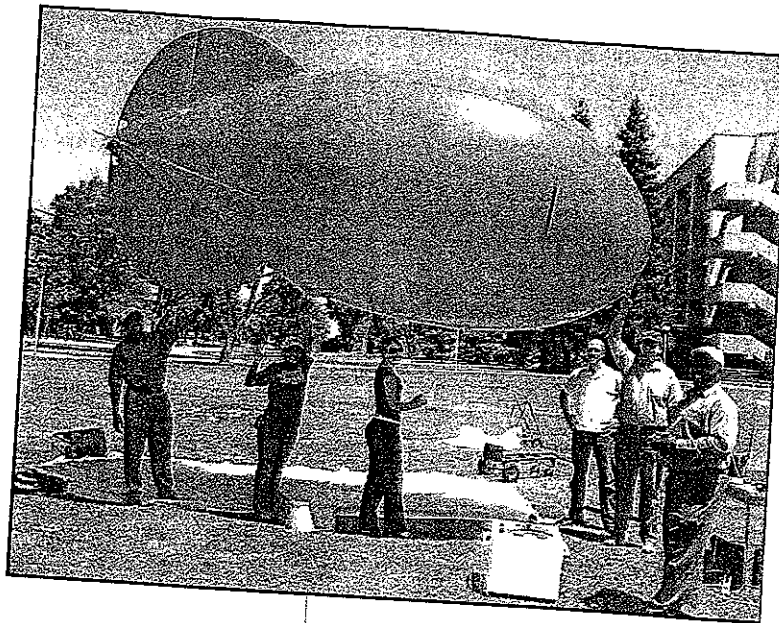
Provost/Vice President for Academic Affairs/or designee

Typed Name

Signature

Date

Geography



Public Policy

Detailed analysis of public policy. Areas of study include welfare policy, quality policy, and health care policy, in addition to the impact of government and faculty.

Independent learning. FS

Applied (3)

Examples of economics include either the study of students or the application of policy. CRINC

(3)

Examples of economics majors and research include concrete experience and how to apply theory, and practical applications. S

term.)

for Teachers

Geography

The world of the 21st century is a place where there are very complex interactions between an increasingly fragile environment and the people who make up the many varied and diverse cultures on it. Geographers are uniquely trained to "see the big picture" so that they can more fully understand these complex interactions of the environment and the many cultures of humankind.

The Geography Department offers a Bachelor of Arts degree in geography, a minor in geography, a minor in meteorology, and an interdisciplinary minor in urban studies. The geography course offerings support undergraduate preparation for careers in environmental study, teaching, weather, regional and urban planning, and preparation for graduate work.

Central to geographic inquiry is a concern with the human occupancy of the earth, the character of the human environment, and the interrelationships that link humans and the physical world. In sum, geography seeks to provide a broad understanding of the world, its people, and its problems. Geography seeks to provide applied specializations and technical skills that can address economic, social, and environmental problems at scales that range from local to global by employing a spatial framework for organizational purposes analogous to the chronological framework employed in history.

Geography integrates much information from the natural and social sciences and because of the diversity of subject matter which it obtains data, offers a broad, practical education applicable to many fields of employment.

The department offers a variety of courses that allow students to address different objectives. First, we provide, for both majors and non-majors alike, a greater understanding of the world as an element of a liberal education which has become an increasingly important component of a complete university education. Second, we provide courses that assure a depth of knowledge in subject matter and technique for majors and minors in geography. Third, we serve those students in related disciplines who wish to strengthen programs of study through a selection of courses in geography.

Although there are no options in the degree program, students may select courses that focus on various areas of study.

Examples of such focused study areas could include the following.

Geographic Studies: Course work for the student interested in the world and its spatial patterns. Traditional study which may lead to graduate work and a career in higher education, or with local, state, and federal agencies utilizing geographic analysis, including the use of geographic information systems (GIS).

Environmental Studies: Course work to develop competence in environmental techniques with particular emphasis on such topics as meteorology, pollution, environmental impact analysis, geographic information systems (GIS), and human-environment relationships may lead to graduate work in geography, or employment in various state and federal agencies dealing with environmental problems.

Urban and Regional Planning: Course work for the student interested in the study of how to create communities that balance

College of Social Sciences

Department of Geography

Aribilola S. Omolayo, *Chair*

Paulette Morrow,

Administrative Support Coordinator

Science Building, Room 182

559.278.2797

B.A. in Geography

Minor in Geography

Minor in Meteorology

Minor in Urban Studies

Subject Matter Preparation for Single Subject Teaching Credential in Social Sciences

Certificate in Geographic Information Systems (GIS)

→ **Certificate for Advanced Studies in Community and Regional Planning**

new development and essential services, environmental protection and innovative change and which may lead to graduate work and a career with local or state agencies. Courses could cover a wide range of subjects including planning, environmental studies, legal issues, and geographic information systems (GIS).

Students must regularly consult with their academic adviser to facilitate course selection and enable the student to develop a program consistent with individual interests and needs.

Faculty and Facilities

Instruction at introductory and advanced levels is conducted by a faculty whose teaching and research interests are diverse. All major facets of the discipline are represented as are a number of specializations, which include medical geography, economic studies of China, urban revitalization, political ecology of natural resource management, environmental monitoring using remote sensing, urban air quality, urban and regional planning, environmental planning, and climate change and global governance.

A laboratory facility is available for student use. The Urban Planning and Environmental Research Laboratory is a 32-station, state-of-the-art, computer laboratory used for instruction and research in urban planning, geographic information systems (GIS), environmental studies, remote sensing, and a variety of other applications.

Social Sciences

Geography

Career Opportunities

Geographers are employed in government and the private sector. Their knowledge and skills have applications in a variety of fields including teaching, planning, cartography, GIS, locational analysis, intelligence and security, land and resource management, policy research, transportation, and industrial development.

Agencies of federal, state, and local governments are major employers of geographers. At the federal level many agencies employ geographers. At state and local levels most geographers are involved in planning, land and resource management, and community development. Because many businesses and industries have important geographical dimensions to their operations, there is demand for geographers in the private sector. Geographers are employed in banking, transportation, international trade, utilities, wholesaling and retailing, and a number of other fields. Finally, teaching is a major occupation for individuals with training in geography. The department welcomes inquiries about career opportunities.

Faculty

Aribilola S. Omolayo, *Chair*
 Michelle Calvarese
 Mohan B. Dangi
 Hongwei Dong
 Chi Kin Leung
 Stuart K. McFeeters
 Segun O. Ogunjemiyo

Bachelor of Arts Degree Requirements

Geography Major

The Bachelor of Arts degree with a major in geography requires the completion of 120 units, at least 42 of which shall be in geography.

	<i>Units</i>
Major requirements	42
Core courses	(12)
GEOG 4, 5, 7, 30	
Areas of Concentration	(18)
Majors should complete 3 units in each area.	
<i>Atmospheric Sciences:</i> GEOG 111, 112, 114, 115, 118	
<i>Environmental Studies:</i> GEOG 127, 128, 135, 139T	
<i>Geographic Information Systems (GIS) and Remote Sensing:</i> GEOG 140, 141, 142, 143, 149, 150, 151, 152	
<i>International Development Studies:</i> GEOG 160, 161,	

162, 163, 164, 165, 166, 167	
<i>Global and Regional Studies:</i>	
GEOG 170T, 171T, 173, 174, 175T, 177T, 178, 179	
<i>Urban and Regional Planning:</i>	
GEOG 181, 184, 187T	
Approved geography electives... (12)	
12 units of upper-division courses	
Additional requirements	3
3 units from one of the following: IS 52 (with 52L), SOC 172	
General Education requirements	51
Electives and remaining degree requirements	24*
(See <i>Degree Requirements</i>); may be used toward a double major or minor	
Total	120

*This total reflects the use of GEOG 4 in G.E. Breadth D3. Consult the department chair or faculty adviser for additional details.

Advising Notes

1. No more than 3 units of GEOG 195 may be applied to the geography major.
2. No General Education Integration or Multicultural/International course offered by the Department of Geography may be used to satisfy the General Education requirements for geography majors.
3. *CR/NC* grading is not permitted in the geography major with the exception of GEOG 192 and 195.
4. General Education and elective units may be applied to a second major or a minor (see *Double Major* or departmental minor). Consult the appropriate department chair, program coordinator, or faculty adviser for further information.
5. Students must complete 40 upper-division units as part of the requirements to earn a B.A.
6. It is strongly recommended that students interested in professional careers in geography select the emphasis in Geographic Information Systems and Remote Sensing and complete a minor in a related field.
7. Students must regularly consult with their academic adviser. Such consultation will facilitate course selection and enable the student to develop a program consistent with individual interests and needs.
8. The selection of electives within the major should be strongly influenced by career goals, interests in graduate study, and related matters. Whether one's interest focuses on environmental protection, planning, cartography, GIS, locational analysis, or any one of a wide array of geographic competencies, the department can provide current applicable information. Inquiries are welcomed.

Geography Minor

	<i>Units</i>
GEOG 4	3
GEOG 5 or 7	3
GEOG 167	3
Select from upper-division geography.....	12*
Total	21

*No more than 3 units earned in GEOG 195 may be applied to the minor. Students completing a minor in geography are encouraged to seek faculty advice relative to course selection and program planning.

Meteorology Minor

The Meteorology Minor requires the successful completion of four meteorology/climatology courses within the Geography Department and three other elective courses that are drawn from Chemistry, Computer Science, Engineering, Environmental Sciences, Geography, and Physics departments.

	<i>Units</i>
Core courses: GEOG 5, 111, 112, 114	12
Electives	9*
With the approval of a program adviser, elect 9 units from the following list of courses: CHEM 3A, CSCI 40, EES 100B, EES 125, EES 167, GEOG 118, PHYS 2A.	
Total	21

*All courses must be passed with a letter grade of C or better to count as credit toward the undergraduate Minor in Meteorology.

Urban Studies Minor

The interdisciplinary Urban Studies Minor provides exposure to the analysis of urban and regional problems and serves as an excellent supplement to other academic degree programs offered throughout the university. A special major in urban studies may be designed to meet the needs of students with an interest in this area. See *Special Major*, page 82-83.

Coordinator: Consult department chair, Geography Department.

Faculty Advisers: Undergraduate advisers in the Geography Department, Anthropology Department, and Sociology Department.

Required Courses	
Concepts and Issues	(3)
GEOG 160, or SOC 163	(3)
PLSI 181	(3)
GEOG 181	(3)
Methods and Techniques	(3)
Select from the following list of courses: GEOG 30, 132, 141, PLSI 90; SOC 175	

Electives 3-6

With the approval of a program adviser, elect 3-6 units with no more than 3 lower-division units from the following list of courses: AFRS 1, 104W, 135; ANTH 120; BA 120, 154; CLAS 3; CRIM 2; ECON 40, 50; FIN 180; GEOG 128, 132, 141, 142, 143, 146, 149, 160, 181, 187T, 190, 192; HIST 137; PLSI 90, 103, 160, 163; SOC2, 111, 125, 131, 163. Senior students may elect internship by registering for SSCI 185 (1-3 units).

Total 21

Students with a course equivalent to one in this category, taken in their major, may, with the approval of the coordinator, substitute additional units from the electives list for the units required here.

Note: The minors also require a minimum of 2.0 GPA and 6 upper-division units in residence.

Credential Program

See the Social Sciences credential adviser, Social Science Building, Room 118, for advising, and refer to *Secondary Teaching Credential* under Social Sciences Programs (see page 481).

Certificate in Geographic Information Systems (GIS)

The Geography Department offers a certificate of special study in Geographic Information Systems. This 12-unit program consists of four required courses. The certificate is designed for students seeking employment opportunities, those considering postbaccalaureate studies, and professionals who wish to further their careers in GIS.

Units

Required Upper-Division Courses 9

GEOG 141, 142, 143

Electives 3

GEOG 152; FIN 123; IS 140; CE 261, 283; GME 174, 175; EES 185, 186

Total 12

Advising Notes

1. Open to all students and professionals.
2. A grade of C or better must be earned in each course to receive the certificate.

Introductory Geography (GEOG)

GEOG 2. Introduction to Cultural Geography (3)

Prerequisite: G.E. Foundation A2. General background to cultural geography, including origins of cultural landscapes, man's modification of the natural environment, and problems of population and settlement geography. G.E. Breadth D3. F even

GEOG 4. World Geography (3)

Prerequisite: G.E. Foundation A2. Survey of world-wide social, cultural, economic and political forces; earth's physical features; economic development; cultural and natural resources; man-land relationships. Applicable concepts and methodologies. Approach is by continents and/or cultural realms. G.E. Breadth D3. FS

GEOG 5. Physical Geography: Global Concepts, Weather and Climate (3)

The earth as a planet, map projections, location on the earth's surface, time, oceans, weather, and climate. F

GEOG 7. Physical Geography: The Earth's Surface (3)

A survey of those elements of the physical environment at the earth-atmosphere contact. Fundamentals of landform features, soils, natural vegetation, and water bodies. S

GEOG 20. Introduction to Spatial Techniques (3)

Introduction to spatial/geographical techniques, including cartography, topographical map reading, geographical information systems, and aerial photo interpretation. S

GEOG 25. Critical Thinking in Geography (3)

Fundamentals of critical thinking with emphasis on evaluating claims, examining geographical and cultural influences on perception, constructing arguments, using deductive and inductive reasoning, recognizing fallacies and persuasive rhetoric, and exploring explanations. These skills are applied to select topics drawn from various geographic contexts. G.E. Foundation A3.

GEOG 30. Introduction to Spatial Statistics (3)

Introduction of elementary statistical principles and techniques: probability theory, sampling, descriptive statistics, spatial statistics, hypothesis testing, correlation analysis, bivariate regression, and forecasting. (2 lecture, 2 lab hours) (Formerly GEOG 110) S

Atmospheric Sciences (GEOG)

GEOG 111. Meteorology (3)

Prerequisites: MATH 75 (or equivalent) and GEOG 5 (or equivalent). Study of the earth's atmosphere; energy exchanges and temperature; pressure and air circulation; fog, clouds, precipitation and the hydrologic cycle; cyclonic storms and orographic processes; stability and thunderstorms; weather modification and predictions with application to agriculture, aviation, and other activities. F even

GEOG 112. Climatology (3)

Prerequisites: MATH 75 (or equivalent) and GEOG 5 (or equivalent). Study of various

systems of climate classification. Climates as they exist throughout the world and the reasons for their occurrence. S odd

GEOG 114. Micrometeorology (3)

(Same as PLANT 134.) Prerequisites: MATH 75 (or equivalent) and GEOG 5 (or equivalent) or permission of instructor. Micrometeorological influences on local climates including natural ecosystems and varying agricultural canopies. Local climate influences on wildlife, domestic animals, and humans. Manipulation of local climate including frost protection, irrigation and wind sheltering. Microclimates of non-uniform terrain and urban environment. S even

GEOG 115. Violent Weather/ Climatic Hazards (3)

Prerequisites: G.E. Foundation and Breadth Area B. Studies hurricanes, tornadoes, thunderstorms, lightning, destructive winds, heat waves, drought, severe winter storms, and floods. Looks at physical laws and processes that account for their formation and behavior; examines human impacts. G.E. Integration IB. FS

GEOG 118. Air Quality Meteorology (3)

Examines the sources, effects, and regulation of air pollutants and the roles of meteorology in air pollution. Topics covered include air pollution sources and sinks, atmospheric systems and pollutant transport, and welfare and health effects of air pollution. (Formerly GEOG 191T)

Environmental Sciences (GEOG)

GEOG 122. Introduction to Biogeography (3)

Prerequisites: G.E. Foundation and Breadth Area B and GEOG 30 (or equivalent). Examination of the living planet and global patterns of life. Topics covered include evolution, biodiversity, extinction, conservation, and impacts of global change on our planet's biosphere. (Formerly GEOG 117) F even

GEOG 127. Global Environmental Change (3)

Prerequisite: G.E. Foundation and Breadth Area B. Effects of human activities on the natural world, from ancient times to the present, with emphasis on local, regional, and global environmental changes and their implications for the future. S even

GEOG 128. Environmental Pollution (3)

Prerequisites: G.E. Foundation and Breadth Area B. A discussion of current environmental pollution problems involving the atmosphere, land, and water. The adverse effects of transportation, surface mining, sewage and waste disposal, noise, the use of pesticides, energy production and consump-

Social Sciences

tion, and related topics are examined. G.E. Integration IB. FS

GEOG 132. U.S. Environmental Law (3)
Prerequisites: G.E. Foundation and Breadth Area D and junior standing. Contemporary environmental problems and their interrelationships. The conceptual, constitutional, and administrative framework for environmental protection and management. Legislation and case law for the protection and enhancement of the environment with emphasis on natural resources. (Formerly CRP 135) S odd

GEOG 135. Environmental Protection (3)
Prerequisites: G.E. Foundation and Breadth Area D. An examination of the plight of nature; the values of nature preserved; man's attempt to preserve nature. Attention focuses on the national park movement, wilderness, endangered species, the management of lands for the purpose of preservation, and related topics. S odd

GEOG 139T. Environmental Regions (1-3; max total 9 if no area repeated)
Prerequisite: G.E. Foundation and Breadth Area D. Systematic and regional investigation of the physical and cultural complexes of various environmental regions. Regions to be discussed include the Humid Tropics, Arid Lands, Polar Lands, Coastal Lands, Mountain Environments, Island Environments. (Formerly GEOG 145T)

Geographic Information Systems and Remote Sensing (GEOG)

GEOG 140. Computer Cartography (3)
Introduction to computer applications in geography. Fundamental concepts of computers, Internet, word processing, programming, database, computer mapping, remote sensing, and GIS applications. No computer and statistical experience required. (2 lecture, 2 lab hours) (Formerly GEOG 102) S odd

GEOG 141. GIS I: Data Display and Manipulation (3)
Prerequisite: GEOG 30 (or equivalent) or permission of instructor. Use of computers in mapping and geographic information systems applications. Operational knowledge of boundary and attribute data manipulation, spatial query, geocoding, and layout using state-of-the-art mapping and geographic information systems software. (2 lecture, 2 lab hours) (Formerly GEOG 101) F

GEOG 142. GIS II: Data Creation and Project Implementation (3)
Prerequisite: GEOG 141 or permission of instructor. Fundamental concepts of acquisition, structure, manipulation, and analysis of GIS data. Practice in the design,

management, and implementation of GIS. Specific operational knowledge may include georegistration, boundary and attribute file creation, map development, spatial query, and spatial analysis. (2 lecture, 2 lab hours) (Formerly GEOG 107) S

GEOG 143. GIS III: Spatial Analysis and Modeling (3)
Prerequisite: GEOG 142 or permission of instructor. Spatial analysis and modeling in a GIS environment. Spatial geometry, pattern analysis, terrain analysis, path analysis, network analysis, surface modeling, spatial autocorrelation, and spatial interpolation. (2 lecture, 2 lab hours) (Formerly GEOG 108) F odd

GEOG 149. Technical Field Geography (3)
Prerequisite: geography major or permission of instructor. Gathering and analysis of data pertaining to topics in physical or human geography. Includes an on-campus seminar to discuss issues and concepts. (1 lecture, 4-8 field hours) (Formerly GEOG 109) S odd

GEOG 150. Map Interpretation (3)
Prerequisites: G.E. Foundation B4, MATH 5 (or equivalent), GEOG 7, and GEOG 30 or permission of instructor. Reading and interpretation of USGS-type topographic maps. Emphasis on interpretative inference concerning both physical and cultural landscapes. (2 lecture, 2 lab hours) (Formerly GEOG 104) F

GEOG 151. Aerial Photograph Interpretation (3)
Prerequisites: G.E. Foundation B4, MATH 5 (or equivalent), GEOG 7, GEOG 30 (or equivalent) or permission of instructor. Introduction to aerial imagery interpretation, videography, and multispectral scanner technology; computer-based digital processing; monitoring and mapping of terrain features; georeferencing (GPS); GIS applications. (2 lecture, 2 lab hours) (Formerly GEOG 105) S

GEOG 152. Remote Sensing I: Introduction to Remote Sensing of Environment (3)
Prerequisites: G.E. Foundation B4, MATH 5 (or equivalent), GEOG 7, GEOG 30 (or equivalent) or permission of instructor. Introductory techniques of remote sensing, including digital image processing, and advanced GIS applications. (2 lecture, 2 lab hours) (Formerly GEOG 106) S even

International Development Studies (GEOG)

GEOG 160. Urban Geography (3)
Prerequisite: G.E. Foundation and Breadth Area D. The city environment. An under-

standing of the changing urban environments from ancient through medieval to modern times; the relationship of the urban center to its surrounding hinterland; the interdependence of its functional parts; its problems and future. F even

GEOG 161. Historical Geography of the United States (3)
Prerequisite: G.E. Foundation and Breadth Area D. Regional settlement of the United States; peopling of physiographic regions; creation of economic (cultural) regions; and geographic factors related to broad trends in American history. F

GEOG 162. Political Geography (3)
Prerequisite: G.E. Foundation and Breadth Area D. Systematic treatment of the nature and structure of states, boundary problems, political policy for the oceans, international power, air space. F even

GEOG 163. World Crises (3)
Prerequisite: G.E. Foundation and Breadth Area D. Current major political, economic and environmental crises occurring on either a global or a regional level. S odd

GEOG 164. American Ethnic Geography (3)
Prerequisite: G.E. Foundation and Breadth Area D. Geographical analysis of selected American ethnic groups to include their cultural hearths, cultural landscapes, cultural evolutions, migrations, and current spatial distributions. Economic, social, and political correlates will be explored. F odd

GEOG 165. Medical Geography (3)
Prerequisite: G.E. Foundation and Breadth Area D. Examination of spatial patterns of diseases worldwide, with special emphasis on diffusion patterns for infectious diseases. Analysis of global health care delivery systems including health care resource accessibility, and uses. (Formerly GEOG 155) S even

GEOG 166. Geography of World Economy (3)
Prerequisite: G.E. Foundation and Breadth Area D. An examination of the organization of world economy and human economic activities from a geographical perspective. Discussion of contemporary economic issues may include industrial restructuring, technological innovation, foreign trade, investment, Pacific Asia dynamism, the World crisis, new international economic order, regional inequality, and local area development. (Formerly GEOG 130) F even

GEOG 167. People and Places — A Global Perspective (3)
Prerequisites: G.E. Foundation and Breadth Area D. Contrasting characteristics of a diverse world; influence of major cultural, economic, and political factors.

social behavior and institutions; impacts of geographical factors including location, climate, natural resources, urbanization, diffusion/adoption of innovations, and rural/urban life styles on development. G.E. Multicultural/International MI. FS

Global and Regional Studies (GEOG)

GEOG 170T. Latin American Regions (1-3; max total 9 if no area repeated)

Prerequisite: G.E. Foundation and Breadth Area D. Geography of Latin America. Relationship of cultural and natural features; social and economic development; man-land relationships. Regions to be discussed include Mexico, Central America, Caribbean Islands, and South America.

GEOG 171T. Anglo-American Regions (1-3; max total 9 if no area repeated)

Prerequisite: G.E. Foundation and Breadth Area D. Examination of the physical, economic, and cultural geographic foundations of major Anglo-American regions. Regions to be discussed include Canada, the United States, the American West, the South, the Middle West, and the North East. (Formerly GEOG 166T)

GEOG 173. The American West (3)

Prerequisites: G.E. Foundation and Breadth Area D. Physical and human geography of the western continental United States. Occupancy of the region, both historically and in contemporary times, by different peoples including Indians, Hispanics, Anglos, and others. Examines population, land and resource use, urban centers, and subdivision of the American West. G.E. Integration ID. (Formerly GEOG 169) FS

GEOG 174. European Regions (3)

Prerequisite: G.E. Foundation and Breadth Area D. Geographic regions of Europe emphasizing the relation of human activities to physical factors areal in their distribution and influence. Regions to be discussed include Mediterranean lands, Western Europe, Eastern Europe, Central Europe, Northern Europe, the British isles. (Formerly GEOG 174T)

GEOG 175T. African Regions (1-3; max total 9 if no region repeated)

Prerequisite: G.E. Foundation and Breadth Area D. Study of major African regions relating to basic physical, cultural, economic, and political geographic conditions and problems. Regions to be discussed include Developing Black Africa, North Africa, West Africa, East Africa, Central Africa, and South Africa. (Formerly GEOG 181T)

GEOG 177T. Asian Regions

(1-3; max total 9 if no area repeated)
Prerequisite: G.E. Foundation and Breadth Area D. Geographic regions of Asia emphasizing physical and cultural features. Regions to be discussed include Southeast Asia, South Asia, China, and the Far East.

GEOG 178. Geography of California (3)

Prerequisite: G.E. Foundation and Breadth Area D. Natural and cultural patterns of California; historical and regional geography of the state. (Formerly GEOG 168) S even

GEOG 179. Geography of the Middle East (3)

Prerequisite: G.E. Foundation and Breadth Area D. Comprehensive study of the physical features of the Middle East and the cultural traits of its people. The area under consideration extends from the Turkish Straits to the Pamir Knot, and from the Caucasus to the Sudan. F odd

Urban and Regional Planning (GEOG)

GEOG 181. Introduction to Urban Planning (3)

Prerequisite: G.E. Foundation and Breadth Area D. Introduction to and critical analysis of theory and practice of community planning; traditional and alternative roles of planning in contemporary society; perspectives on community problems; evaluation of concepts, literature, and history. (Formerly CRP 100) F

GEOG 184. Environmental Planning (3)

Introductory course that covers the fundamental concepts of environmental planning at the federal, state, and local level. Covers the interrelationships among residents, working landscapes, and protected areas, as well as society's need to protect valuable natural resources. (Formerly GEOG 188T)

GEOG 187T. Topics in Urban Planning Techniques (1-3; max total 6)

Selected topics such as analytical techniques; means for management of urban development, including transportation, public facilities, and activities in the private sector; public policy concerning issues of local and regional significance. (Formerly CRP 110T) S even

Geographic Topics, Research, and Field Trips (GEOG)

GEOG 190. Independent Study

(1-3; max total 6)
See *Academic Placement — Independent Study*. Approved for RP grading. FS

GEOG 191T. Topics in Geography

(1-3; max total 9)
Prerequisite: G.E. Foundation and Breadth Area D. Selected topics in cultural, physical, environmental, or economic geography or in geographic techniques. (Formerly GEOG 188T) FS

GEOG 192. Directed Readings

(1-3; max total 6)
Prerequisite: permission of instructor. Supervised readings in a selected field of geography. Combined units of GEOG 190 and 192 may not exceed 6 units. CR/NC grading only. FS

GEOG 195. Field Geography

(1-6; max total 6)
Prerequisite: permission of instructor. Weekend, semester break, or summer field trips. CR/NC grading only. FS

Certificate in Advanced Studies in Community and Regional Planning

The Geography Department offers a Certificate of Advanced Study in Community and Regional Planning. This 15 graduate unit program consists of five courses. The Certificate Program is designed for various types of students. The targeted audience may include current graduate-level students who plan to obtain their master's degree in a land use planning-related field, such as Real Estate, Public Administration, Civil Engineering, Public Health, and Architecture. It also includes planning-related practicing professionals, such as architects, engineers, planners, elected and appointed public officials, and non-profit community service providers.

Admission Criteria

Interested candidates shall meet at least one of the following criteria for admission. Applicants must

1. be currently enrolled in a master's degree program at an accredited institution of higher education, or
2. have already earned a master's degree from an accredited institution of higher education, or
3. have earned an undergraduate degree.

A GRE test is not required for admission. Students currently enrolled in a graduate degree program at Fresno State must submit an "Add or Change Graduate Degree or Advanced Certificate Objective" form to the Division of Graduate Studies office.

Admission Process

Students shall submit a program application to the Program Coordinator and Fresno State University. The application can be found on the Program website. Besides the application, students shall also submit three letters of recommendation to the Program Coordinator. Student must apply for admission to the university through CSU Mentor.

Computer Requirements and Support

Participants must have access to a computer. All students will need to activate a Fresno State email account. Software requirements can be accessed by clicking on the following link: <https://help.fresnostate.edu/content/software.php>. Visit the Digital Campus website at <http://www.fresnostate.edu/academics/tilt/> to learn more about how to be successful with online learning. Students have access to online tutorials and frequently asked questions at the following website: <http://www.fresnostate.edu/academics/blackboard/students/index.html>

Exit from Program

The Certificate in Community and Regional Planning shall be issued upon completion of all coursework with a GPA of 3.0 or higher. Program is cohort based. Students are expected to progress and graduate within their matriculated cohort. Exceptions are considered on a case-by-case basis in accordance with university policy and accreditation standards. To be awarded the certificate, students must first submit a Proposed Program for the Certificate of Advanced

Studies, and then file the Application for the Award of the Certificate of Advanced Study in the Division of Graduate Studies within the first two weeks of the term in which all courses and requirements are expected to be completed.

A minimum of 9 program units must be used solely for certificate course requirements, and not toward any other degree or certificate program.

Program Length and Schedule

The five required courses are distributed in Fall and Spring semesters in each academic year. In each Fall semester, courses GEOG 201, 202, and 203 are offered sequentially, with each course finished within 4-5 weeks. GEOG 204 and 205 are available in each Spring semester sequentially with each finished within 6-7 weeks.

A full online delivery mode will be utilized to accommodate participants' work schedules.

Required Graduate Courses	Units
1) GEOG 201 Foundations in Urban Planning	3
2) GEOG 202 Land Use Regulation, Law and Ethics	3
3) GEOG 203 Community Planning	3
4) GEOG 204 Environmental Planning	3
5) GEOG 205 Transportation Planning	3
Total	15

Advising Notes .

1. Open to all post-baccalaureate students and professionals
2. A grade of B or better must be earned in each course to receive the certificate.