

GEOGRAPHY (GEO)

College of Letters & Science

GEO 200A – Research Trends in Geography (1 unit)

Course Description: Major current research themes and trends in geography.

Learning Activities: Seminar 1 hour(s).

Grade Mode: Satisfactory/Unsatisfactory only.

GEO 200AN – Geographical Concepts (4 units)

Course Description: Concepts and thematic content of the discipline, including contemporary research questions. A brief review of the history of geographic thought and practice is done at the beginning of the course.

Prerequisite(s): Graduate standing in Geography or consent of instructor.

Learning Activities: Lecture/Discussion 3 hour(s), Term Paper.

Grade Mode: Letter.

GEO 200BN – Theory & Practice of Geography (4 units)

Course Description: Development, application, and philosophical background of theory in discipline of geography and geographical knowledge production. Similarities and differences in theories employed in physical and human geography and cartography. Geographic contributions to interdisciplinary theory bridging biophysical sciences, social sciences, and humanities.

Prerequisite(s): Graduate standing.

Learning Activities: Lecture/Discussion 4 hour(s).

Enrollment Restriction(s): Limited to 20 students.

Grade Mode: Letter.

GEO 200CN – Quantitative Geography (4 units)

Course Description: Provides an overview of quantitative approaches in spatial data analysis. Overview of different approaches used for inference, modeling, and prediction. Also learn how to write computer programs to implement these methods.

Learning Activities: Lecture 2 hour(s), Laboratory 6 hour(s).

Enrollment Restriction(s): Limited to 25 students.

Grade Mode: Letter.

GEO 200DN – Socio-Spatial Analysis in Geography (4 units)

Course Description: Introduction to methodologies of socio-spatial analysis in interviews, and ethnographic fieldwork. Students develop a critical understanding of different methodological and theoretical approaches, and their appropriate applications in overall research design.

Learning Activities: Lecture/Discussion 4 hour(s).

Enrollment Restriction(s): Limited to 25 students.

Grade Mode: Letter.

GEO 200E – Advanced Research Design in Geography (2 units)

Course Description: Helps Ph.D. students develop their research question, design their research plan and complete a full dissertation research proposal.

Prerequisite(s): GEO 200AN; GEO 200BN; GEO 200CN; GEO 200DN; graduate standing.

Learning Activities: Lecture/Discussion 2 hour(s).

Enrollment Restriction(s): Limited to 15 students.

Grade Mode: Letter.

GEO 201 – Sources & General Literature of Geography (4 units)

Course Description: Designed for students preparing for higher degrees in geography.

Prerequisite(s): Consent of instructor. Graduate standing in geography.

Learning Activities: Discussion 4 hour(s).

Repeat Credit: May be repeated in one or more subfields: physical, cultural, economic, urban, historical, political, conservation, regional geography.

Grade Mode: Letter.

GEO 210 – Topics in Biogeography (3 units)

Course Description: Current topics in historical and ecological biogeography, including macroecology and areography, GIS and remote sensing, phylogeography, vegetation, plant and animal community and species geography. Systematics, climate change, and conservation will be addressed.

Prerequisite(s): EVE 147 or WFC 156 (can be concurrent); or equivalent.

Learning Activities: Lecture 2 hour(s), Discussion 1 hour(s).

Enrollment Restriction(s): Consent of instructor required for undergraduates.

Grade Mode: Letter.

GEO 211 – Physical Geography Traditions & Methods (3 units)

Course Description: Discussion of the physical science tradition in geography, including key concepts and current research in climatology, geomorphology, soils geography, biogeography, climate change, watershed science, and coastal studies. Research paradigms, programs, and methods as used by physical geographers will be discussed.

Prerequisite(s): Introductory course in physical geography.

Learning Activities: Discussion/Laboratory 2 hour(s), Term Paper.

Enrollment Restriction(s): Graduate-level standing in geography or related discipline.

Repeat Credit: May be repeated 3 time(s).

Grade Mode: Letter.

GEO 212 – Water Resource Management (4 units)

Course Description: Engineering, institutional, economic, and social basis for managing local and regional water resources. Examples in the context of California's water development and management. Uses of computer modeling to improve water management.

Prerequisite(s): ECI 114; ECI 142; or consent of instructor.

Learning Activities: Lecture 4 hour(s).

Cross Listing: ECI 267.

Grade Mode: Letter.

GEO 214 – Seminar in Geographical Ecology (2 units)

Course Description: Recent developments in theoretical and experimental biogeography, historical biogeography and related themes in systematics, the biology of colonizing species, and related topics.

Prerequisite(s): EVE 100 or EVE 101; or consent of instructor.

Learning Activities: Seminar 2 hour(s).

Repeat Credit: May be repeated.

Cross Listing: PBG 296.

Grade Mode: Satisfactory/Unsatisfactory only.

GEO 215 – What is Infrastructure; Critical Infrastructure Studies (3 units)

Course Description: Introduction to interdisciplinary scholarship and design on expanding conceptions of infrastructure, that include social, technical, ecological, political and aesthetic dimensions of the medium. Focus on application of theory to case studies and thinking through landscape as infrastructure.

Learning Activities: Seminar 3 hour(s).

Enrollment Restriction(s): Open to graduate standing or consent of instructor.

Cross Listing: LDA 215.

Grade Mode: Letter.

GEO 220 – Topics in Human Geography (4 units)

Course Description: Examination of philosophy and theory in human geography with an emphasis on contemporary debates and concepts in social, cultural, humanistic, political, and economic geographies. Specific discussion of space, place, scale and landscape; material and imagined geographies.

Prerequisite(s): Graduate standing or consent of instructor.

Learning Activities: Seminar 4 hour(s).

Enrollment Restriction(s): Limited to 20 students.

Grade Mode: Letter.

GEO 233 – Urban Planning & Design (4 units)

Course Description: Regulation, design, and development of the built landscape, planning and land development processes, zoning and subdivision regulation, site planning, urban design goals and methods, public participation strategies, creatively designing landscapes to meet community and ecological goals.

Learning Activities: Lecture 2 hour(s), Discussion 2 hour(s).

Enrollment Restriction(s): Limited to graduate students.

Cross Listing: LDA 205.

Grade Mode: Letter.

GEO 236 – Transportation Planning & Policy (4 units)

Course Description: Transportation planning process at the regional level, including the role of federal policy in shaping regional transportation planning, tools and techniques used in regional transportation planning, issues facing regional transportation planning agencies, pros and cons of potential solutions and strategies.

Learning Activities: Lecture/Discussion 4 hour(s).

Enrollment Restriction(s): Limited enrollment.

Credit Limitation(s): Students taking this course previously as TTP 289 cannot repeat it for credit; taking other TTP 289 offerings does not preclude taking TTP 220 for credit.

Cross Listing: TTP 220.

Grade Mode: Letter.

GEO 240 – Community Development Theory (4 units)

Course Description: Introduction to theories of community development and different concepts of community, poverty, and development.

Emphasis on building theory, linking applied development techniques to theory, evaluating development policy, and examining case studies of community development organizations and projects.

Learning Activities: Lecture/Discussion 4 hour(s).

Cross Listing: CRD 240.

Grade Mode: Letter.

GEO 241 – The Economics of Community Development (4 units)

Course Description: Economic theories and methods of planning for communities. Human resources, community services and infrastructure, industrialization and technological change, and regional growth. The community's role in the greater economy.

Prerequisite(s): Graduate standing.

Learning Activities: Seminar 4 hour(s).

Cross Listing: CRD 241.

Grade Mode: Letter.

GEO 245 – The Political Economy of Urban & Regional Development (4 units)

Course Description: How global, political and economic restructuring and national and state policies are mediated by community politics; social production of urban form; role of the state in uneven development; dynamics of urban growth and decline; regional development in California.

Prerequisite(s): CRD 157; CRD 244; or the equivalent.

Learning Activities: Lecture 4 hour(s).

Cross Listing: CRD 245.

Grade Mode: Letter.

GEO 246 – The Political Economy of Transnational Migration (4 units)

Course Description: Theoretical perspectives and empirical research on social, cultural, political, and economic processes of transnational migration to the U.S. Discussion of conventional theories will precede contemporary comparative perspectives on class, race, ethnicity, citizenship, and the ethnic economy.

Prerequisite(s): Graduate standing.

Learning Activities: Lecture 4 hour(s).

Cross Listing: CRD 246.

Grade Mode: Letter.

GEO 248 – Social Policy, Welfare Theories & Communities (4 units)

Course Description: Theories and comparative histories of modern welfare states and social policy in relation to legal/normative, organizational, and administrative aspects. Analysis of specific social issues within the U.S./California context.

Prerequisite(s): Graduate standing.

Learning Activities: Seminar 4 hour(s).

Credit Limitation(s): Not open for credit to students having completed CRD 248A and CRD 248B.

Cross Listing: CRD 248.

Grade Mode: Letter.

GEO 254 – Political Ecology of Community Development (4 units)

Course Description: Community development from the perspective of geographical political ecology. Social and environmental outcomes of the dynamic relationship between communities and land-based resources, and between social groups. Cases of community conservation and development in developing and industrialized countries.

Prerequisite(s): Graduate standing.

Learning Activities: Lecture 4 hour(s).

Cross Listing: CRD 244.

Grade Mode: Letter.

GEO 260 – Global Political Ecology (4 units)

Course Description: Background, genesis, current debates in political ecology. Examination of political-economic and social-cultural causes of environmental change. Introduction to development theory, globalization, history of science and power/knowledge. Cases of social movements, justice, resistance, gender, race and class. Focus outside North America.

Learning Activities: Seminar 3 hour(s), Term Paper/Discussion 1 hour(s).

Enrollment Restriction(s): Open to graduate students only or consent of instructor.

Grade Mode: Letter.

GEO 279 – Exploring Data from Built Environment Using R (4 units)

Starting Winter Quarter 2026, this course is no longer offered.

Course Description: Introduction to modern data science, specifically data acquisition, exploratory data, visualization, and beginning data analysis using R. Emphasizes computational reasoning and working with tabular and non-standard data. Focus will be on data generated in the built environment.

Learning Activities: Lecture 3 hour(s), Laboratory 3 hour(s).

Cross Listing: ECI 254.

Grade Mode: Letter.

GEO 280 – Field Studies in Geography (3 units)

Course Description: A topic or sub-discipline of geography forms the theme for the course in any given offering, with a focus on current research on this topic, field methodologies, and data analysis in human and physical geography.

Prerequisite(s): Consent of instructor; undergraduate or graduate coursework in geography.

Learning Activities: Lecture 1 hour(s), Fieldwork 6 hour(s).

Enrollment Restriction(s): Limited to 20 students.

Repeat Credit: May be repeated 2 time(s).

Grade Mode: Letter.

GEO 281 – Transportation Survey Methods (4 units)

Course Description: Description of types of surveys commonly used in transportation demand modeling, including travel and activity diaries, attitudinal, panel, computer, and stated-response surveys. Discussion of sampling, experimental design, and survey design issues. Analysis methods, including factor, discriminant and cluster analysis.

Prerequisite(s): (STA 013 or STA 013Y); ECI 251 recommended.

Learning Activities: Lecture 4 hour(s).

Credit Limitation(s): Not open for credit to students who have taken ECI 255.

Cross Listing: TTP 200.

Grade Mode: Letter.

GEO 286 – Selected Topics in Environmental Remote Sensing (3 units)

Course Description: In depth investigation of advanced topics in remote sensing applications, measurements, and theory.

Prerequisite(s): ERS 186; and consent of instructor, or equivalent required; ERS 186L recommended.

Learning Activities: Discussion 2 hour(s), Lecture 1 hour(s), Project.

Repeat Credit: May be repeated.

Cross Listing: HYD 286.

Grade Mode: Letter.

GEO 290 – Seminar in Geography (1-3 units)

Course Description: Seminar focuses on specified topical areas within geography, which will vary quarter to quarter. Students expected to present an oral seminar on an aspect of the general topic under discussion.

Prerequisite(s): Graduate standing or consent of instructor.

Learning Activities: Seminar 1-3 hour(s).

Repeat Credit: May be repeated 6 time(s).

Grade Mode: Satisfactory/Unsatisfactory only.

GEO 291 – Seminar in Cultural Geography (4 units)

Course Description: Seminar in cultural geography.

Learning Activities: Seminar 3 hour(s).

Grade Mode: Letter.

GEO 293 – Graduate Internship (1-12 units)

Course Description: Individually designed, supervised internship, off campus, in community or institutional setting. Developed with advice of faculty mentor.

Prerequisite(s): Consent of instructor.

Learning Activities: Variable 3-36 hour(s).

Repeat Credit: May be repeated.

Grade Mode: Satisfactory/Unsatisfactory only.

GEO 295 – Seminar in Urban Geography (4 units)

Course Description: Seminar in urban geography.

Learning Activities: Seminar 3 hour(s).

Grade Mode: Letter.

GEO 297 – Graduate Group in Geography (2 units)

Course Description: Seminars by UC Davis faculty and prominent national and international scholars; research presentations by Graduate Group in Geography Ph.D. candidates.

Prerequisite(s): Graduate standing.

Learning Activities: Lecture/Discussion 1 hour(s), Term Paper.

Repeat Credit: May be repeated.

Grade Mode: Satisfactory/Unsatisfactory only.

GEO 298 – Group Study (1-5 units)

Course Description: Group study.

Prerequisite(s): Graduate standing or consent of instructor.

Learning Activities: Seminar 1 hour(s).

Repeat Credit: May be repeated 10 unit(s).

Grade Mode: Satisfactory/Unsatisfactory only.

GEO 299 – Research (1-12 units)

Course Description: Research.

Learning Activities: Variable.

Grade Mode: Satisfactory/Unsatisfactory only.

GEO 299D – Individual Study (1-12 units)

Course Description: Individual study.

Prerequisite(s): Consent of instructor; graduate student status in Geography.

Learning Activities: Variable.

Repeat Credit: May be repeated.

Grade Mode: Satisfactory/Unsatisfactory only.