

GEOGRAPHY-GR (GR)

Courses

GR 100 Introduction to Geography (GT-SS2) Credits: 3 (3-0-0)

Course Description: Major geographic themes applied to selected regions; physical environment, human-land relationships, regional analysis.

Prerequisite: None.

Registration Information: Sections may be offered: Online.

Terms Offered: Fall, Spring.

Grade Mode: Traditional.

Special Course Fee: No.

Additional Information: Social & Behavioral Sciences 3C, Geography (GT-SS2).

GR 102 Geography of Europe and the Americas (GT-SS2) Credits: 3 (3-0-0)

Course Description: Examines the physical and human geographies of Europe, including the former Soviet Union, and the Americas from the Southern Cone to Canada. Focus is on the content of these geographies, why they exist, and their current significance; supported by extensive map analysis.

Prerequisite: None.

Registration Information: Credit not allowed for both GR 102 and GR 180A1.

Term Offered: Fall.

Grade Mode: Traditional.

Special Course Fee: No.

Additional Information: Diversity, Equity, & Inclusion 1C, Geography (GT-SS2).

GR 110 Introduction to Physical Geography (GT-SC2) Credits: 3 (3-0-0)

Course Description: Introduction to the fundamentals of physical geography including climatology, climate change, biogeography, plate tectonics, landforms and soils. Explore the science of mapping the physical earth, spatial analysis and thinking, and human-environment interactions.

Prerequisite: None.

Registration Information: Sections may be offered: Online.

Term Offered: Spring.

Grade Mode: Traditional.

Special Course Fee: No.

Additional Information: Biological & Physical Sciences 3A, Natural & Physical Sciences w/o lab (GT-SC2).

GR 111 Introduction to Physical Geography Lab (GT-SC1) Credit: 1 (0-2-0)

Course Description: Laboratory application of the principles of physical geography.

Prerequisite: None.

Registration Information: Sections may be offered: Online.

Term Offered: Spring.

Grade Mode: Traditional.

Special Course Fee: No.

Additional Information: Biological & Physical Sciences 3A, Natural & Physical Sciences w/ lab (GT-SC1).

GR 204 Sustainable Watersheds (GT-SC2) Credits: 3 (3-0-0)

Also Offered As: WR 204.

Course Description: Effects of climate, land use, and water use on the sustainability of water quantity and quality.

Prerequisite: None.

Registration Information: Credit allowed for only one of the following: GR 204, GR 304, WR 204 or WR 304.

Terms Offered: Fall, Spring.

Grade Mode: Traditional.

Special Course Fee: No.

Additional Information: Biological & Physical Sciences 3A, Natural & Physical Sciences w/o lab (GT-SC2).

GR 210 Physical Geography Credits: 3 (3-0-0)

Also Offered As: ESS 210.

Course Description: Energy, mass budget, and human impacts on atmosphere, hydrosphere, and continental land surfaces.

Prerequisite: None.

Registration Information: Credit not allowed for both GR 210 and ESS 210.

Terms Offered: Fall, Spring.

Grade Mode: Traditional.

Special Course Fee: No.

GR 213 Climate Migrants (GT-SS2) Credits: 3 (3-0-0)

Course Description: Explore the various drivers of migration, emphasizing climate and others including biogeographic, political, economic, and social factors.

Prerequisite: None.

Term Offered: Spring.

Grade Mode: Traditional.

Special Course Fee: No.

Additional Information: Social & Behavioral Sciences 3C, Geography (GT-SS2).

GR 217 Human-Environment Geographies (GT-SS2) Credits: 3 (3-0-0)

Course Description: Examines human-environment relationships using geographic theories, geographic methods, and empirical evidence. Explores cross-scalar geographic interactions that shape environmental change and emphasizes critical thinking and small group interactions.

Prerequisite: None.

Term Offered: Spring.

Grade Mode: Traditional.

Special Course Fee: No.

Additional Information: Social & Behavioral Sciences 3C, Geography (GT-SS2).

GR 220 Mapping, Cartography, and Spatial Thinking Credits: 3 (2-2-0)

Course Description: Spatial thinking is the science and art of making maps that play a key role in enabling geographers to visualize space and spatial patterns, as well as, convey spatial information to others. Introduction to the science of spatial thinking, including collecting spatial information and making maps, modern geographic information sciences (GIS) that have evolved from cartography, and spatial analysis techniques that are fundamental to Geography.

Prerequisite: None.

Registration Information: Must register for lecture and laboratory.

Term Offered: Spring (odd years).

Grade Mode: Traditional.

Special Course Fee: No.

GR 303 Mountain Geography Credits: 3 (3-0-0)

Course Description: The physical and human dimensions of mountains. Examples from mountains around the world with case studies from Colorado.

Prerequisite: GR 100 to 499 - at least 3 credits.

Registration Information: Junior standing.

Terms Offered: Fall, Spring.

Grade Mode: Traditional.

Special Course Fee: No.

GR 305 Geography of Global Health Credits: 3 (3-0-0)

Course Description: Study, research and practice of global health using an ecological approach that integrates health with spatial thinking.

Focuses on a common set of issues which transcends boundaries, both domestic and international, and a set of actions to address the geographic burden of disease. Key principles and concepts, history of global health transitions, common and emerging health issues.

Prerequisite: ANTH 200 or GR 100 or INST 200.

Term Offered: Spring (even years).

Grade Mode: Traditional.

Special Course Fee: No.

GR 311 GIS for Social Scientists Credits: 3 (1-4-0)

Course Description: Applications of GIS techniques useful to the social sciences. Mapping techniques and GIS toolkits are practiced in lab.

Prerequisite: GR 100.

Registration Information: Sections may be offered: Online.

Terms Offered: Fall, Spring, Summer.

Grade Mode: Traditional.

Special Course Fee: No.

GR 315 Quantitative Geographical Methods Credits: 3 (3-0-0)

Course Description: Methods to collect, analyze, display, and model geographic data.

Prerequisite: GR 100.

Term Offered: Fall (odd years).

Grade Mode: Traditional.

Special Course Fee: No.

GR 320 Cultural Geography Credits: 3 (3-0-0)

Course Description: Geographic analysis of cultural phenomena, elements emphasizing human-land relationships and spatial patterns of agriculture, cities, language, religion.

Prerequisite: GR 100.

Registration Information: Sections may be offered: Online.

Term Offered: Fall (odd years).

Grade Modes: S/U within Student Option, Trad within Student Option.

Special Course Fee: No.

GR 323 Remote Sensing and Image Interpretation Credits: 3 (2-2-0)

Also Offered As: NR 323.

Course Description: Remote sensing systems and applications; characteristics of photographic, scanner and radar images; imagery interpretations.

Prerequisite: None.

Registration Information: Must register for lecture and laboratory. Credit allowed for only one of the following: GR 323, GR 503, NR 323, NR 503.

Term Offered: Fall.

Grade Mode: Traditional.

Special Course Fee: No.

GR 330 Urban Geography Credits: 3 (3-0-0)

Course Description: Spatial distribution of urban areas and the geographic similarities and contrasts that exist between and within them.

Prerequisite: GR 100.

Registration Information: Sections may be offered: Online.

Terms Offered: Fall, Spring, Summer.

Grade Mode: Traditional.

Special Course Fee: No.

GR 331 Geography of Farming Systems Credits: 3 (3-0-0)

Course Description: Geographic analysis of farming systems worldwide and by region; their development over time, human-land relationships, and spatial patterns.

Prerequisite: GR 100.

Term Offered: Spring (odd years).

Grade Mode: Traditional.

Special Course Fee: No.

GR 333 Glaciers and Climate Change Credits: 3 (3-0-0)

Course Description: Glacier mass balance, dynamics, past fluctuations, and glaciers' relation to climate change.

Prerequisite: GR 100 or GR 210 or GEOL 120 or GEOL 122 or GEOL 124 or GEOL 150.

Registration Information: Credit allowed for only one of the following: GEOL 381A2, GR 333 and GR 381A2.

Term Offered: Fall.

Grade Mode: Traditional.

Special Course Fee: No.

GR 345 Geography of Hazards Credits: 3 (3-0-0)

Course Description: Causes, effects, distributional patterns, and human adjustments to environmental hazards.

Prerequisite: GR 210.

Term Offered: Spring (odd years).

Grade Mode: Traditional.

Special Course Fee: No.

GR 348 Biogeography Credits: 3 (3-0-0)

Course Description: Species distribution of plants and animals in relation to earth history and environments, evolution, and ecology.

Prerequisite: GR 000 to 99999 - at least 3 credits.

Terms Offered: Fall, Spring.

Grade Mode: Traditional.

Special Course Fee: No.

GR 400 History of Theory-Anthropology and Geography Credits: 3 (3-0-0)

Also Offered As: ANTH 400.

Course Description: Anthropological/Geographical theory from its beginnings with Aristotle through recent developments into the 20th century.

Prerequisite: (ANTH 100 or ANTH 200) and (ANTH 120 and ANTH 121 and ANTH 140 or GR 100).

Registration Information: Junior or senior standing. Sections may be offered: Online. Credit not allowed for both ANTH 400 and GR 400.

Terms Offered: Fall, Spring.

Grade Mode: Traditional.

Special Course Fee: No.

GR 410 Climate Change: Science, Policy, Implications Credits: 3 (3-0-0)

Course Description: Implications and consequences for earth systems including the cryosphere, hydrosphere, biosphere, and human systems.

Prerequisite: GR 100 to 499 - at least 3 credits.

Registration Information: Junior standing.

Term Offered: Spring.

Grade Mode: Traditional.

Special Course Fee: No.

GR 415 The Geography of Commodities Credits: 3 (3-0-0)

Course Description: Social relations, international trade, and environmental impacts surrounding the production, transportation, exchange, and consumption of commodities.

Prerequisite: GR 100.

Registration Information: Junior standing.

Terms Offered: Fall, Spring, Summer.

Grade Mode: Traditional.

Special Course Fee: No.

GR 418 Development Geographies Credits: 3 (3-0-0)

Course Description: Examines development processes through a critical geography lens. Assesses the social and environmental impacts of various development interventions – from tropical medicine in the colonial era to Green Revolution technologies and current Chinese infrastructural development in Africa.

Prerequisite: GR 100 to 499 - at least 3 credits.

Restriction: Must not be a: Freshman, Sophomore.

Registration Information: Junior standing.

Grade Mode: Traditional.

Special Course Fee: No.

GR 420 Spatial Analysis with GIS Credits: 4 (3-2-0)

Course Description: Theory, application of geographic information systems for spatial analysis; conceptual basis of GIS, nature and use of geographic data, case studies.

Prerequisite: GR 000 to 99999 - at least 3 credits.

Registration Information: Credit not allowed for both GR 420 and NR 322.

Term Offered: Fall.

Grade Mode: Traditional.

Special Course Fee: No.

GR 425A Special Topics: Human Geography Credits: Var[1-3] (0-0-0)

Course Description: Special topics in human geography.

Prerequisite: GR 100 to 499 - at least 3 credits.

Registration Information: May be taken for a maximum of 9 credits.

Grade Mode: Traditional.

Special Course Fee: No.

GR 425B Special Topics: Geospatial Geography Credits: Var[1-3] (0-0-0)

Course Description: Special topics in geospatial approaches in geography.

Prerequisite: GR 100 to 499 - at least 3 credits.

Registration Information: May be taken for a maximum of 9 credits.

Grade Mode: Traditional.

Special Course Fee: No.

GR 425C Special Topics: Physical Geography Credits: Var[1-3] (0-0-0)

Course Description: Special topics in physical geography.

Prerequisite: GR 100 to 499 - at least 3 credits.

Registration Information: May be taken for a maximum of 9 credits.

Grade Mode: Traditional.

Special Course Fee: No.

GR 430 Land Change Science and Remote Sensing Credits: 3 (3-0-0)

Course Description: Local case studies and global cases of land-use/land-cover changes in rural, peri-urban, and urban areas.

Prerequisite: GR 100.

Registration Information: Junior standing.

Term Offered: Spring (even years).

Grade Mode: Traditional.

Special Course Fee: No.

GR 431 Land Change Science Lab Credit: 1 (0-3-0)

Course Description: Utilize advanced remote sensing techniques and satellite images, air photos, and ancillary data to investigate land-use and land-cover changes.

Prerequisite: GR 323 or NR 323 or GR 503 or NR 503.

Registration Information: Must have concurrent registration in GR 430.

Term Offered: Spring (even years).

Grade Mode: Traditional.

Special Course Fee: No.

GR 440 Political Geography Credits: 3 (3-0-0)

Also Offered As: POLS 440.

Course Description: Examines the meaning of political space; states and nations; competition for territory, including methods and justifications; the structure of political space focusing on states; geopolitics; and the state in an era of globalization. Concepts are illustrated by real-world situations.

Prerequisite: GR 100 or POLS 101.

Registration Information: Sophomore standing. Sections may be offered: Online or Mixed Face-to-Face. Credit not allowed for both GR 440 and POLS 440.

Grade Mode: Traditional.

Special Course Fee: No.

GR 448 Forest Biogeography and Climate Change Credits: 3 (3-0-0)

Course Description: Forest adaptation and conservation in relation to global change with a focus on climate change.

Prerequisite: ESS 211 or ESS 311 or F 311 or GR 100 or GR 210 or ESS 210 or GR 303 or GR 348 or GR 410.

Registration Information: Junior standing.

Term Offered: Spring (odd years).

Grade Mode: Traditional.

Special Course Fee: No.

GR 482A Study Abroad--Vietnam: Land Change Science and Remote Sensing Credits: 3 (0-0-3)

Course Description: Vietnam specific local case studies of land-use/land-cover changes in rural, peri-urban, and urban areas. Integrate these local cases as examples that relate to global cases looking at the drivers of land-use/land-cover changes. The broader implications of these changes are discussed, and examples of these implications are witnessed through field visits.

Prerequisite: GR 100.

Registration Information: Sophomore standing. Credit not allowed for both GR 430 and GR 482A.

Term Offered: Summer.

Grade Mode: Traditional.

Special Course Fee: No.

GR 487 Internship Credits: Var[1-9] (0-0-0)

Course Description: Academic-based work experience with selected organizations or agencies. Supervised application of principles of geography.

Prerequisite: GR 100 to 499 - at least 9 credits.

Terms Offered: Fall, Spring, Summer.

Grade Mode: Traditional.

Special Course Fee: No.

GR 493 Capstone Seminar Credit: 1 (0-0-1)

Course Description: Exploration of the linkages among the human and physical geography sub-fields, geographic techniques, and other natural and social sciences as well as how professional geographers approach issues.

Prerequisite: None.

Registration Information: Junior standing. Concurrent registration in one of the following AUCC Category 4A courses for the Major in Geography:

GR 303, GR 410, GR 415, or GR 430.

Terms Offered: Fall, Spring.

Grade Mode: Traditional.

Special Course Fee: No.

GR 495 Independent Study Credits: Var[1-3] (0-0-0)

Course Description:

Prerequisite: None.

Terms Offered: Fall, Spring.

Grade Mode: Instructor Option.

Special Course Fee: No.

GR 503 Remote Sensing and Image Analysis Credits: 4 (3-3-0)

Also Offered As: NR 503.

Course Description: Interpretation and analysis of photographic, multispectral scanner, and radar data; sensor systems; applications to resource management.

Prerequisite: None.

Registration Information: Must register for lecture and laboratory. Credit allowed for only one of the following: GR 323, GR 503, NR 323, or NR 503.

Term Offered: Fall.

Grade Mode: Traditional.

Special Course Fee: No.

GR 548 Biogeography Credits: 3 (3-0-0)

Course Description: Species distribution of plants and animals in relation to earth history and environments, evolution, and ecology.

Prerequisite: None.

Restriction: Must be a Graduate.

Registration Information: Graduate Standing.

Term Offered: Spring (odd years).

Grade Mode: Traditional.

Special Course Fee: No.

GR 592 Special Topics in Geography Credits: 3 (0-0-3)

Course Description: Recent papers from the literature will be used to foster discussion among participants.

Prerequisite: None.

Registration Information: Graduate standing.

Grade Mode: Traditional.

Special Course Fee: No.